An Interpretivist Study Of Customer Self-Service Technology Usage And Experiences In The Tourism Sector.

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AN INTERPRETIVIST STUDY OF
CUSTOMER SELF-SERVICE TECHNOLOGY
USAGE AND EXPERIENCES IN THE
TOURISM SECTOR

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A thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy

Supervisor: Dr Jennifer Lawlor
Advisory Supervisor: Dr Michael Mulvey

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Abstract

This study provides an interpretivist exploration of customer usage and experiences of self-service technologies (SSTs) in the tourism sector. Tourism customers are increasingly using a wide range of SSTs, for example, to make reservations online and use self-check-in and ‘bag and tag’ facilities at airports. While SST research to date has provided insights into the factors affecting customer SST adoption decisions, the aim of this study is to explore customers’ perspectives on their usage and experiences of SSTs in the tourism sector. This interpretivist study employs a two-stage qualitative methodology of short qualitative interviews with 133 participants at an international airport, followed by 32 in-depth interviews with SST users in the tourism sector.

Seven motivations for SST usage are identified in this research. Whilst motivations such as convenience and access to lower prices have received some research attention, three new motivations emerge in this research, namely forced usage, eco-friendliness and empathy for other customers. In addition, customer experiences of SSTs are explored through the lens of the value-in-experience concept. This approach illustrates whether SST usage creates value for the customer (e.g. a sense of accomplishment) or destroys value (e.g. a perception of lack of control over the SST encounter).

Using the theoretical lens of Service-Dominant Logic, an analysis of SST experiences indicates that customers undertake a variety of SST roles, such as that of convenience seeker, motivated worker, enforced worker and judge. Some of these roles indicate that customers are often required to use SSTs by the tourism provider, and may not be given other options (e.g. personal encounter with employees). Similarly, customers often assume the role of partial employee, by working on behalf of the tourism provider, to assist other customers who experience SST difficulties. Therefore, it is asserted that from the user’s point of view, SST usage is often imposed upon customers, as opposed to being offered as an option, thus challenging the traditional customer-centricity of the marketing paradigm, as proposed by the Service-Dominant Logic.

A key contribution of this study is the development and examination of a model of SST usage, which illustrates the complex, nuanced and often contradictory nature of a customer’s usage and experiences. This model may facilitate marketers, managers and policy makers in planning strategic service interventions to enhance value creation in SST usage and ensure successful implementation of SSTs in the tourism sector and the wider services sector.
Declaration

I certify that this thesis, which I now submit for examination for the award of PhD, is entirely my own work, and has not been taken from the work of others, save and to the extent that such work has been cited and acknowledged within the text of my work.

This thesis was prepared according to the regulations for postgraduate study by research of the Dublin Institute of Technology and has not been submitted in whole, or in part for another award in any Institute.

The work reported on in this thesis conforms to the principles and requirements of DIT’s guidelines for ethics in research.

DIT has permission to keep, lend or copy this thesis in whole or in part, on condition that any such use of the material of the thesis be duly acknowledged.

Signature _________________________ Date ________________

Candidate
Dedication

For my parents, Angel and Zlatka Zhelyazkova
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List of Abbreviations

ATM – Authomatic Teller Machine
CIT – Critical Incident Technique
DOI – Diffusion of Innovations Theory
FP – Fundamental Premise
G-D Logic – Goods-Dominant Logic
ICT – Information and Communication Technology
QDA – Qualitative Data Analysis
S-D Logic – Service-Dominant Logic
SDT – Self-determination Theory
SST – Self-service Technology
TA – Technology Anxiety
TAM – Technology Acceptance Model
TBSS – Technology-based Self-service
TR – Technology Readiness
TRA – Theory of Reasoned Action
TRI – Technology Readiness Index
**Glossary of Terms**

**Assistance provider** – A role undertaken by an SST user helping customers during SST service or failure incidents by tutoring them or engaging with the SST on their behalf. Participants describe themselves as enthusiastically or reluctantly providing help to fellow customers.

**Convenience seeker** – A role undertaken by an SST user seeking out SST options which will provide benefits in return for minimum customer effort. In this role, users suggest that they have evaluated all other service options and have chosen the SST option as the one which suits them best.

**Co-production** – The joint production between the service provider and consumer of the core service offering.

**Enforced worker** – A role undertaken by an SST user which reflects the customer perception that they are obliged to provide inputs towards using SSTs due to a perceived lack of alternative options.

**Goods-dominant Logic (G-D Logic)** – G-D Logic is a marketing perspective which suggests that goods/operand resources are the primary unit of exchange in the market where producers determine and create the value offering while customers consume it.

**Judge role** – A role undertaken by an SST user reflecting the cognitive involvement of customers in inspecting and finding problems with SSTs while using them. Participants in this role perceive that they have the confidence and expertise to judge the SST service.

**Motivated worker** – A role undertaken by an SST user where they perceive their SST usage activities as necessary ‘work’ and a responsibility on the part of the customer in return for service benefits, such as control, convenience, enjoyment or lower price.

**Self-service technology (SST)** – A technological interface which allows consumers to deliver services independent of direct service employee involvement. The term Technology-based Self-service (TBSS) may be used interchangeably in the research literature. The term used in the present study is SST.

**Service-dominant Logic (S-D Logic)** – The S-D Logic represents a pre-theoretical perspective of market exchange. The S-D Logic has been proposed by Vargo and Lusch (2004) and aims to represent a synthesised view of market exchange which has evolved over 50 years of marketing research. The S-D Logic suggests that ‘service’ is the fundamental basis of exchange in the market which is transmitted via goods and services.
**Technology acceptance model (TAM)** – The Technology acceptance model is a theory which predicts customer acceptance of new technology systems. TAM suggests that the extent to which a consumer believes a technology is useful and easy to use would form the attitude towards that information system and the behavioural intention to use it.

**Technology anxiety (TA)** – Technology anxiety represents the user’s state of mind regarding their ability and willingness to use technology-related tools.

**Technology readiness (TR)** – Technology readiness is a measure of general customer beliefs and attitudes towards technology introduced by Parasuraman (2000). Consumer beliefs of **optimism** and **innovativeness** are contributors to TR whilst **discomfort** and **insecurity** act as inhibitors.

**Technological sweeper** – A role undertaken by an SST user which reveals a unique customer perspective of creatively and independently combining various SSTs in order to achieve a service goal in the best possible way.

**Unskilled worker** – A role undertaken by an SST user where they perceive their SST usage activities as necessary, but very challenging ‘work’ and a responsibility on the part of the customer in return for service benefits. They identify a shortage of IT skills, SST operational knowledge and physical disabilities as preventing them from effective usage of the SST. For this reason, they may need to try harder or where possible look for assistance from other customers, or the service company, in providing the necessary customer inputs.

**Value co-creation** – Value co-creation is a joint process that takes place on a co-creation platform involving, for example, a service provider and a customer, where the service provider’s service (production) process and the customer’s consumption and value creation process merge into one process of direct interactions.

**Value network** – a spontaneously sensing and responding spatial and temporal structure of largely loosely coupled, value-proposing social and economic actors interacting through institutions, technology, and language to co-produce service offerings, engage in mutual service provision, and co-create value.

**Value-creating experience** – An experience which a beneficiary has determined as creating value for them.

**Value-destroying experience** – An experience which a beneficiary has determined as destroying value for them.
Chapter 1 Introduction

1.1 Introduction

Tourism is one of the world’s leading economic sectors, showing stable growth, despite economic downturns (United Nations World Tourism Organisation Tourism (UNTWO) Highlights, 2015). According to statistics from the UNWTO Tourism Highlights (2015), export earnings from international tourism amounted to 1.5 trillion dollars (6% of world exports) in 2014, with international tourist arrivals increasing by 4.4%, reaching a total of 1,135 million, up from 1,087 million in 2013. These figures suggest that tourism is a significant economic sector, a human activity which millions of people engage in worldwide. Tourism also creates employment and is a major industry in many developing countries (Turner and Sears, 2013). Tourism directly employs over 98 million people, representing 3% of all world employment (Turner and Sears, 2013).

Tourism growth has been fuelled by socio-demographic, political, economic, and cultural factors (Goeldner and Ritchie, 2011). Tourism is not only growing, but also undergoing structural and strategic changes influenced by information and communication technologies (ICTs) (Neuhofer, Buhalis and Ladkin, 2014; Buhalis and Law, 2008). An important strategic change is the ICT empowerment of tourism customers to customise and create their tourism experiences (Neuhofer et al., 2014). Technological developments, such as the internet, web 2.0, and social media platforms, have been facilitating the continued empowerment of customers (Cutten and Venneman, 2014; Ritzer and Jurgenson, 2010). Recent developments in the ongoing technological
revolution have equipped customers with smart phones, tablets and mini-tablets, which enable them to access information and services ‘on the go’ (Accenture, 2015). The next step in customer information technologies will be wearable technology, such as smart glasses and technologies embedded in everyday clothing, which will allow for hands-free, immediate access to information and services (Accenture, 2015). The technology-empowered customer is also a self-service, partial employee to the organisation who may take over duties which have been previously performed by employees, thus, reducing company operational expenses (Ritzer and Jurgenson, 2010).

Service companies have been quick to recognise the potential for significant savings by encouraging their customers to use self-service technologies (SSTs) (Meuter, Ostrom, Roundtree and Bitner, 2000). Research has explored the factors which contribute to customer decisions to engage with SSTs (see for example, Heinderreich and Handrich, 2015; Elliott, Hall and Meng, 2013; Patsiotis, Hughes and Webber, 2013), but less research attention has been given to the customer process of delivering the service, and the resulting experiences (Halstead and Richards, 2014; Hilton, Hughes, Little and Marandi, 2013). The understanding of customer production in SSTs is important, as customers play a pivotal part in the delivery of the service, and their experiences will determine future customer adoption and engagement with SSTs (Etgar, 2008). This study seeks to broaden our understanding of customers’ usage and experiences of SSTs by exploring customers’ perspectives on their usage and experiences of SSTs in the tourism sector.

This chapter outlines the rationale for this research, and describes the research aims and objectives underpinning this study, as well as the research methodology undertaken. This chapter also outlines the structure of this thesis.
1.2 Rationale for this Research

Technology has infused the service industry over past decades and has affected every aspect of service management and delivery (Ostrom, Bitner, Brown, Burkhard, Goul, Smith-Daniels, Demirkan and Rabinovich, 2010). The face of the service industry includes increasing technological elements, which replace employees or enhance the service process with new aspects (Accenture, 2015; Oh, Jeong and Baloglu, 2013). Many airlines have streamlined their operations with self check-in and automatic scan facilities (Oh et al., 2013). Banks encourage their customers to manage their accounts online and reduce their off-line branches (Cardona, Kretschmer and Strobel, 2013). Contemporary service customers are presented with a variety of channels through which they might interact with the service company, including technology mediated customer-employee interactions or technology facilitated self-service (Schumann, Wünderlich and Wangenheim, 2012). Furthermore, the interconnectedness of consumer technologies is coming to the fore in terms of customer relationship management (see for example, Accenture, 2015; Cutten and Venneman, 2014).

The tourism sector has been affected by the ICT revolution, undergoing a transformation from traditionally high-touch, low-tech to a technologically infused operation (Ip, Laung and Law, 2011). Tourism customers are provided with online information searches and bookings, kiosk ticketing and check-in, interactive displays, and mobile technology applications (Neuhofer, Buhalis and Ladkin, 2013). Therefore, the implementation of ICTs in tourism has provided an increased opportunity for customer self-service (Ip et al., 2011; Lawlor, 2010) through the use of self-service technologies (Meuter et al., 2000). Although SSTs impact the customer experience in many service sectors, the tourism experience is the main output from tourism service
provision (Pizam, 2010). Therefore, this study is concerned with understanding the customer experiences with SSTs in the tourism sector.

SSTs provide for reduced service delivery costs and a more efficient service process (Elliott et al., 2013), while customers gain control over the service and contribute to their own satisfaction (Lawlor, 2010). Despite the numerous benefits for both service providers and customers from SST implementation, customer adoption and usage of these technologies still represents a management challenge (Wang, Harris and Patterson, 2012). The vast majority of SST research focuses on the study of customer adoption factors, so that service managers may manipulate these factors and encourage customer adoption of SSTs (see for example, Wang, 2012; Meuter et al., 2005). Recent studies have addressed customer resistance to SST usage (see for example, Patsiotis et al., 2013) and how to reduce the negative effects from ‘forcing’ customers to use SSTs (see for example, Reinders, Frambach and Kleijnen, 2015; Liu, 2012; Konus, Trampe and Verhoef, 2009). Nevertheless, the implementation of SSTs in service sectors is increasing and will continue to do so (Accenture, 2015). This raises questions as to whether or not customers are really comfortable with their active SST production role, despite the increasing implementation of SSTs in tourism (Lawlor, 2010).

SST research is predominantly based on rational theories of human behaviour, such as the ‘Theory of Reasoned Action’ and ‘Diffusion of Innovations Theory’, which pose limitations to the understanding of SST customer behaviour (Hilton and Hughes, 2013; Patsiotis et al., 2013). These theories have not been specifically designed for the study of SST usage by customers, and their adaptations to the SST context have not provided a comprehensive understanding of customer SST behaviour (Lin and Chang, 2011; Baron, Patterson and Harris, 2006). Furthermore, researchers have started recognising
the limitations of quantitative surveys for providing new insights into customer usage of SSTs (Wang et al., 2012; Baron et al., 2006). SST adoption research has focused predominantly on the factors which might influence the customer’s decision to try an SST, but further research is required to investigate the SST usage interaction as an act of customer-provider service co-production (Hilton et al., 2013). With SSTs, the customer undertakes an active production role, often with little employee involvement (Meuter et al., 2000) and as such it is important that we enhance our understanding of customer co-production in SST encounters (Hilton et al., 2013).

A further shortcoming of SST research, which has been recently highlighted, is the lack of engagement with marketing theory, and more specifically, customer-centric theories such as the Service-Dominant (S-D) Logic of marketing (Heidenreich and Handrich, 2015; Hilton and Hughes, 2013). The applicability of the S-D Logic to SST research is justified as it focuses on the central role of the customer as a co-producer during SST encounters (Barrutia and Gilsanz, 2013; Hilton et al., 2013). The customer-centric S-D Logic of marketing (Vargo and Lusch, 2004) provides a broad theoretical perspective for the study of SST usage as a customer process of service co-production and co-creation of service value (Hilton, 2008). Through the lens of the customer-centric S-D Logic, the importance of studying the customer experience and the customer perspective on their role as co-creator of value is further emphasised (see for example, McColl-Kennedy, Vargo, Dagger, Sweeney and Kasteren, 2012; Payne, Storbacka and Frow, 2008).

The present study adopts the S-D Logic perspective and explores customer SST usage as a process of service co-production (Hilton et al., 2013). Customer co-production theory (see for example, Etgar, 2008; Mills and Morris, 1986) is intertwined with co-
creation theory (see for example, Helkkula and Kelleher, 2010; Payne et al., 2008) since, during SST delivery, the customer is both a producer and consumer of the service (Grönroos, 2008). Co-production theory suggests that customer production in services may be represented as consecutive phases (see for example, Guo, Arnould, Gruen and Tang, 2013; Mills and Morris, 1986). Based on a review of existing co-production models, this study conceptualises co-production as a process of three phases: decision-making, activation, and experience evaluation. The conceptual foundations guiding this research draw on co-production theory (see for example, Etgar, 2008) as a basic framework together with co-creation of value theory (see for example, Helkkula and Kelleher, 2010), customer roles theory (see for example, Chervonnaya, 2003; Bitner, Faranda, Hubbert and Zeithaml, 1997), and multi-channel and SST adoption research (see for example, Meuter et al., 2005).

The understanding of customer SST usage from an alternative perspective, alongside the existing research relating to SST adoption factors, may provide a wealth of new insights for managing the service process (Hilton et al., 2013). Indeed, current research focuses on ‘why’ customers use SSTs, but less attention is given to ‘how’ they produce and consume the service (Hilton and Hughes, 2013). As such, this research has both practical and theoretical justifications. The amount of SSTs in tourism is growing and offering unlimited opportunities for enriching the tourism experience (Tussyadiah, 2014). However, customer SST research suffers from a number of limitations, such as the over-focus on adoption factors in the trial stage (Wang et al., 2012), the usage of student samples (Kim, Qu and Kim, 2009; Cunningham, Gelrach, Harper and Young, 2005), the predominance of the quantitative research methodologies (Lin and Chang, 2011), and the lack of consistency in findings (Lee, Cho, Xu and Fairhurst, 2010; Liljander Gillberg, Gummerus and Riel, 2006). These limitations may hinder effective
company management of SST processes (Hilton and Hughes, 2013). As such, this study intends to address the gaps currently existing in SST research and its aim and objectives are presented in the following section.

1.3 Research Aim and Objectives

The previous section has identified gaps in existing literature relating to customer usage of SSTs in the context of the tourism experience. Effective SST implementation requires research which will explore the customer’s perspective on co-production of the service, and not just the factors affecting their decision to engage with SSTs (Hilton and Hughes, 2013). Therefore, the research aim of this thesis is to explore customers’ perspectives on their usage and experiences of SSTs in the tourism sector. The fulfilment of this research purpose is guided by the emergent conceptual foundations of SST co-production, discussed in the previous section. The review of the literature pertaining to customer SST co-production reveals a number of gaps relating to decision-making (Etgar, 2008), customer roles, and associated experience evaluations (Hilton et al., 2013; Hilton and Hughes, 2013). Three research objectives, identified below, are adopted in order to explore customer’s perspectives on their usage and experiences of SSTs.

Research Objective One: To investigate customers’ motivations for using SSTs in the tourism sector.

Customer decisions regarding their engagement with SSTs have been researched in terms of various adoption factors (see for example, Heidenreich and Handrich, 2015; Meuter et al., 2005). The research into factors affecting SST usage reveals inconsistencies and contradictions due to the various SST contexts and interface types.
(Walker and Johnson, 2006). Furthermore, the predominance of quantitative surveys represents a limitation to uncovering new factors and relationships between them (Wang et al., 2012; Lin and Chang, 2011). The predominant motivational theories underpinning SST adoption research include the ‘Technology Acceptance Model’ (Davis, Bagozzi and Warshaw, 1989) and the ‘Diffusion of Innovations Theory’ (Patsiotis et al., 2013; Rogers, 1995). However, other suitable motivational theories may provide new insights into customer SST usage (Leung and Matanda, 2013).

The co-production process begins with the customer evaluating their motivation and reaching a decision to engage in co-production (Etgar, 2008). The customer’s perceptions of the factors and motivations in the decision-making stage determine not only if, but also how the customer engages in co-production (Etgar, 2008). Although there appears to be some research relating to customer motivation to use SSTs, effectively this research represents only the utilitarian, functional benefits which customers indicate as driving their choice to use SSTs, such as convenience, control and independence (see for example, Liljander et al., 2006; Meuter, Ostrom, Bitner and Roundtree, 2003). The predominant focus on the functional benefits from SST usage has been identified as a shortcoming of SST research by Cetto, Klier and Klier (2015) and Collier and Barnes (2015) who examine the hedonic value from SST usage. SSTs are being implemented in ever more diverse service environments where utilitarian value may not be the only aspect sought by customers (Collier and Barnes, 2015). Furthermore, the nature of customer motivations in terms of satisfaction of customer needs and goals has not been a priority for SST research (Wünderlich, Kranz, Totzek, Viet and Picot, 2013). This is important because it will provide an understanding of the specific needs and goals that customers satisfy when they use SSTs (Wünderlich et al., 2013). Therefore, the understanding of customer SST experiences of co-production
would necessitate an in-depth investigation of the customer perspective on their motivation.

*Research Objective Two: To explore the customer experience of SSTs in the tourism sector.*

The tourism sector has been undergoing an infiltration of SSTs, such as in hospitality (Oh *et al.*, 2013), airlines (Gelderman, Ghijsen and Diemen, 2011; Abdelaziz, Hegazy and Elabbassy, 2010), and travel attractions (Ip *et al.*, 2011). These SSTs change the nature of the tourism experience from traditionally high-touch to high-tech (Neuhofer *et al.*, 2014). Since SSTs may be part of the supporting tourism experiences, or the peak experience itself (Neuhofer *et al.*, 2014), the study of the tourism experience would necessitate an understanding of SST experiences. However, the nature of the SST experience has received limited attention beyond SST adoption factors (see for example, Meuter *et al.*, 2005), the measuring of satisfaction (see for example, Reinders *et al.*, 2015; Weijters, Rangarajan, Falk and Schillewaert, 2007) and service quality perceptions (see for example, Parasuraman, Zeithaml and Malhotta, 2005). These concepts represent cognitive evaluations of the service outcome, but not the process of customer evaluation and meaning formation during the customer service experience (Helkkula and Kelleher, 2010).

Enhancing of customer SST experiences has been suggested as a priority in ensuring customer loyalty (Scherer, Wünderlich and Wangenheim, 2015; Halstead and Richards, 2014). Customer value-in-experience has been gaining attention from the S-D Logic perspective with the central co-creator role of the customer (Heinonen, Strandvick and Voima, 2013; Heinonen, Strandvick and Mickelsson, 2010; Helkkula and Kelleher, 2010). The understanding of customer value co-creation provides guidelines for service
providers in planning their interventions in enhancing the customer experience (Grönroos, 2008). Customer experiences with SSTs have been defined as value-enhancing and value-destroying, but further research has been invited to understand the service situations when value is enhanced or destroyed (Hilton et al., 2013). Therefore, this research explores the SST experience in terms of customer perceptions of symbolisms, meanings and emotions contributing to the experience evaluation.

Research Objective Three: To examine the roles that customers undertake in SST encounters in the tourism sector.

The understanding of customer SST experiences also requires the examination of the customer perspectives on their active role in producing and consuming the service (Hilton and Hughes, 2013). During service production and consumption, customers undertake service roles which have links to the quality of customer experiences co-created (McColl-Kennedy et al., 2012; Etgar, 2008). Therefore, the understanding of customer SST experiences requires an examination not only of customer motivations, but also the customer perspective on the roles that they undertake. The understanding of customer views on their roles and responsibilities during co-production is essential for service provider support and facilitation of these activities and the resulting value co-created (Lusch, Vargo and Tanniru, 2010).

Although the service management literature highlights the active customer role in services, most of the research reflects the service provider perspective (Namasivayam, 2003) or provides only general representations of customer activities during services (see for example, Moeller, Ciuchita, Mahr, Odekerken-Schroeder and Fassnacht, 2013; Chervonnaya, 2003). There is only limited research capturing the customer subjective meanings and perceptions of their roles in specific service contexts (see for example,
McColl-Kennedy et al., 2012). The understanding of customer roles in specific service contexts has been further highlighted by the customer-centric S-D Logic in marketing, which proposes that service value is phenomenologically determined by the customer (Moeller et al., 2013; Helkkula, Kelleher and Pihlstrom, 2012). Even less research has been conducted on the active customer role during service failure incidents, which are not uncommon in an SST context (Zhu, Nakata, Sivakumar and Grewal, 2013). Hence, a gap prevails in terms of understanding customer subjective meanings and perceptions of their roles during SST service encounters.

In summary, the overall research aim of this study is to understand customer usage and experiences of SSTs in the tourism sector generating three operational research objectives. These objectives have been arrived at by identifying gaps in the SST literature relating to the understanding of customer SST usage and experiences.

1.4 Research Strategy

In order to fulfil the objectives discussed above, this research employs an interpretivist perspective and a two-stage qualitative methodology. Stage One includes short qualitative interviews, similar to the method of short surveys used qualitatively in Carson, Gilmore, Perry and Gronhaug (2001). The interviews were conducted at the departure lounge of Shannon International Airport in Ireland, with a convenience sample of 133 passengers who were SST users. This location was chosen because airline passengers were deemed likely to have had recent experiences with travel and tourism related SSTs. Carson et al. (2001) recommend that the method of short qualitative interviews be followed by a more comprehensive research method; therefore, Stage Two consists of in-depth interviews, with a sample of 32 SST users. The Stage Two interviews generated a more exhaustive discussion on the themes which emerged
during Stage One. Furthermore, Stage Two included a projective sentences method as a technique for increasing the reliability of the data.

The process of generating the research aim and objectives, and the choice and application of a research methodology is developed in Chapter Four of this thesis. The chapter structure and contents of this thesis are introduced in the following section of this chapter.

1.5 Structure of Thesis

This thesis consists of seven chapters. Chapter One presents the rationale for this research, the research aim and objectives, and the methodology which has been employed to achieve this aim. This chapter serves as an introduction, and the themes raised are developed further in the following chapters.

Chapter Two and Chapter Three present an extensive review and analysis of relevant literature. Chapter Two contextualises this research against the background of technological developments in services and tourism, and highlights the necessity to explore customer SST experiences in tourism. The remainder of the chapter outlines research relating to SSTs, such as definition, classifications, research focus and gaps. The chapter concludes with a justification for the necessity to understand customer SST usage from an S-D Logic perspective, as suggested by Hilton and Hughes (2013).

Chapter Three seeks to discuss and justify the suitability of the S-D Logic perspective (Vargo and Lusch, 2004) and customer co-production and co-creation theory as a conceptual basis for the study of customer SST usage. Literature pertaining to the adaptation of co-production and co-creation theory, in an SST context, is examined in
the remainder of the chapter, including SST decision-making, customer service roles, and the evaluation of SST experiences.

Chapter Four provides a detailed overview of the research methodology underpinning this thesis, and specifically, a justification for the interpretivist approach and qualitative methodology employed in the present study. The chapter continues with a discussion of the data collection and analysis procedures employed during the two phases of research. Special attention is given to ethical considerations throughout the research process and the steps followed in the data analysis process. The chapter concludes with a discussion of the limitations of this research approach.

Chapters Five and Six present the findings of the empirical research. The discussion of findings is supported by excerpts from the data collected. Chapter Five discusses the findings pertaining to the first objective of this research, that is, customer SST usage motivations. Seven customer motivations for SST usage are identified, which are diverse and, at times, conflicting. For example, customers may use SST because it is convenient and beneficial for them, but they may also use SSTs to suit the service provider, help other customers, or preserve the planet.

Chapter Six discusses the findings relating to research objectives two and three. The second objective of this research provided evidence of six diverse and contradicting SST experiences. The third research objective identified seven customer SST roles, which reflect a more nuanced customer perception of their roles during SST encounters. A wealth of perceptions relating to SST experiences and roles emerged in the projective sentences and these are discussed within the respective sections of the chapter.

Chapter Seven provides key conclusions and recommendations, and analyses the significance of the findings in the context of existing literature. The chapter presents a
comprehensive conceptual model of SST usage, which illustrates the complexities and contradictory nature of customer motivations, experiences and roles in SST usage. The chapter concludes with suggested recommendations for further research and managerial implications. A visual representation of the thesis structure is provided in Figure 1.1 below.
Figure 1.1 A Road Map for This Thesis

<table>
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<tr>
<th>Chapter One: Introduction</th>
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<td>Objective Two: To explore the customer experience of SSTs in the tourism sector</td>
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<td>The study of SST adoption factors shows inconsistencies in findings (Lee et al., 2010; Liljander et al., 2007).</td>
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<td>The predominance of quantitative surveys represents a limitation to uncovering new factors and relationships between them (Wang et al., 2012; Lin and Chang, 2011).</td>
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<td>There is little understanding of how to enhance customer SST experiences (Halstead and Richards, 2015).</td>
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<td>There is room for introducing suitable motivational theories to provide new understanding of customer SST usage (Collier and Barnes, 2015; Leung and Matanda, 2013).</td>
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<tr>
<td>Multi-channel Services</td>
<td>Understand factors and patterns of customer multi-channel behaviours (Scherer et al., 2015; Neslin and Shankar, 2009).</td>
<td>Objective One: To investigate customers’ motivation for using SSTs in the tourism sector</td>
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<td></td>
<td>Examine customer responses to ‘right channelling’ and forced usage (Konus et al., 2009; Reinders et al., 2008).</td>
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<tr>
<td>Service Co-production/co-creation</td>
<td>The understanding of service situations which lead to value enhancing/destroying SST experiences (Hilton et al., 2013).</td>
<td>Objective Three: To examine the roles that customers undertake in SST encounters in the tourism sector</td>
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<td>Co-production/co-creation motivation requires empirical exploration (Roberts et al., 2013; Etgar, 2008).</td>
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<td>The customer subjective perception of their roles in co-creating service requires investigation in various service contexts (McColl-Kennedy et al., 2012).</td>
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<td>The active customer production role in SST encounters has not been recognised in SST recovery (Dong et al., 2008).</td>
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<td>Tourism Experience</td>
<td>The impact of ICTs on the nature and conceptualisation of the tourism experience (Gretzel and Jamal, 2009).</td>
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<td>The understanding of ICT facilitated tourism experiences (Neuhofer et al., 2014).</td>
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Chapter Four: Methodology |

Chapter Five and Six: Findings |

Chapter Seven: Conclusions and Recommendations
1.6 Conclusion

This Chapter has outlined the background to the research in terms of the ongoing development and infiltration of technology in the service industry and tourism. A brief review of SST research identified the main problems and gaps in the study of customer SST experiences within the context of tourism. These research gaps have dictated the research aim and objectives of this study, and the justification for employing a qualitative, two-stage, research methodology. A review of the research literature and a discussion of the research process and findings are developed in subsequent chapters of this thesis.
Chapter 2 Technology and the Tourism Experience

2.1 Introduction

The tourism sector has been affected by the ICT revolution, undergoing a transformation from a traditionally high-touch, low-tech sector to an ICT-enhanced operation (Neuhofer, Buhalis and Ladkin, 2015; Ip et al., 2011). The advance of ICTs and Web 2.0 applications in tourism has created opportunities for the creation of immersive, enhanced tourism experiences (Neuhofer et al., 2013). Technology impacts the overall tourism experience, and hence a revisiting of the tourism experience’s conceptualisation may be required (Neuhofer et al., 2015; Gretzel and Jamal, 2009). This necessity is highlighted by the recognised importance of the tourism experience, in tourism related literature, as a major competitive advantage of the tourism industry (Frochot and Batat, 2013; Pizam, 2010).

The technological revolution has facilitated increased implementation by the tourism sector of various technological interfaces enabling customers to deliver services independent of direct employee involvement (Oh et al., 2013; Meuter et al., 2000). Since the use of SSTs in tourism is expected to continue increasing, customer experiences with SSTs in the tourism sector require deeper understanding (Lawlor, 2010). This chapter develops the discussion on customer SST and tourism experiences, suggesting the necessity to understand customer experiences with SSTs in the tourism sector. SSTs are outlined in terms of definitions, classifications and recent developments. The chapter continues with a discussion of the advantages and
disadvantages of the implementation of SSTs for both the customer and the service provider since these determine customer usage and experiences with SSTs. The chapter concludes with an overview of the research on customer SST usage to date, identifying the major gaps which have provided direction for this research project.

2.2 The Tourism Experience

Tourism is defined as both an activity and an economic sector (Cooper, Fletcher, Fyall, Gilbert and Wanhill, 2008). The World Tourism Organisation and the United Nations suggest the following definition of tourism in the ‘International Recommendation for Tourism Statistics’ (IRTS, 2008, p.1):

Tourism is a social, cultural and economic phenomenon related to the movement of people to places outside their usual place of residence, pleasure being the usual motivation. The activities carried out by a visitor may or may not involve a market transaction, and may be different from or similar to those normally carried out in his/ her regular routine of life. These activities represent the actions and behaviours of people in preparation for and during a trip in their capacity as consumers.

Tourism entails interactions between people, businesses, organisations and places in the creation of a tourism experience (Cooper et al., 2008). The industry supporting the tourism activity comprises attractions, accommodation, intermediaries (such as tour operators and agencies), transportation (road, rail, water and air), public sector and policy, and destinations (including destination management and local tourism organisations) (Cooper et al., 2008). A similar structure is offered by Holloway, Humphreys and Davison (2009) who recognise six groups of tourism services, namely attractions, business tourism, hospitality sector, transport, intermediaries and ancillary tourism services (tour escorts, guides, animators, travel insurance and duty free shopping). Goeldner and Ritchie (2011) include four broad groups comprising tourism provision, comprising transport, hospitality, travel agents, and attractions. The
distinction between tourism services and services for the local population may be hard
to distinguish, especially in urban destinations (Law, 2002).

Since the 1990s, all aspects of the tourism industry in the developed world have been
embracing ICTs in their operations (Buhalis and Law, 2008). ICTs have streamlined not
only back-of-house operations, but also customer service operations in sectors such as
travel, accommodation, booking, attractions and events sectors (Ip et al., 2011). SSTs
such as ticketing kiosks and self-check-in facilities are a common sight at modern
airports. Online accommodation and travel bookings are amongst the top customer
usages of the internet (comScore, 2013). These changes in tourism provision have
resulted in the empowerment of customers in creating their own experiences and an
increase in customer satisfaction (Lawlor, 2006).

The time-space aspect of the tourism definition, that is, travel away from home, may be
questionable with the development of technology (Uriely, 2005). Information
technology and the internet allow for places away from home to be experienced
virtually from home without the need to travel at all (Tussyadiah, 2014). Smart phone
cameras facilitate the capturing and sharing of an experience instantaneously. Therefore,
technological development is challenging the time-space aspect of tourism since a
person who has not travelled away from their home may get involved in tourism
experiences, such as friends who are not part of the travel group may become part of the
experience when commenting and posting via social media (Tussyadiah, 2014; Wang
and Fesenmeier, 2013). The term V-tourism has been coined by Hyun, Lee and Hu
(2009) to represent a tourism experience facilitated by 3D virtual reality technology.

The above example of V-tourism also suggests that tourism experiences do not
necessarily have to be linked to the traditional sectors of the tourism industry, such as
travel, accommodation, attractions, events and guest services (Volo, 2009). With the development of ICTs, tourism experiences are becoming less related to the traditional tourism sector service offerings (Frochot and Batat, 2013). Therefore, the present study employs the term ‘tourism’ to include not only the traditional tourism sector services (travel, accommodation and attractions, and tourism activities), but also any service forms and activities which may relate to the tourism experience. For example, the tourism experience of a person visiting a foreign country may include an interaction with a local person at a supermarket self-checkout. Therefore, even though the self-checkout is not designed as a tourism service offering, it has acted as a service facilitating a tourism experience. Furthermore, this person’s experiences with ICTs in their home country would determine their experience at the tourist destination. Gretzel and Jamal (2009) call for a revisit of tourism experience conceptualisations to reflect the transformative effects of technology. Therefore, this section continues with an overview of the tourism experience.

The predominantly intangible nature of tourism provision has brought to the fore the tourism experience, which has been the subject of much research (Volo, 2009). The tourism experience is complex and a universally agreed definition remains elusive (Ritchie and Hudson, 2009; Larsen and Mossberg, 2007). Approaches to the study of the tourism experience include contributions from various disciplines, such as psychology, marketing, anthropology, sociology and economics (Larsen and Mossberg, 2007). Therefore, efforts have been made to synergise the various multidisciplinary contributions in unified models (see for example, Quinlan-Cutler and Carmichael, 2010; Mossberg, 2007).
There are two recognised approaches to defining the tourism experience: objective and subjective (Mossberg, 2007). From an objective, marketing perspective, the tourism experience is a service offering with specific observable parameters, while the social science perspective views the tourism experience as a subjective and complex, psychological interpretation process (Frochot and Batat, 2013). The objective/subjective stance of defining and researching the tourism experience is synthesised by Volo (2009, p.120) who introduces the terms ‘experience essence’ and ‘experience offering’. The objective and subjective stance to the tourism experience should not be seen as a dichotomy which cannot be bridged, but as equally important in providing understanding of the tourism experience (Quinlan-Cutler and Carmichael, 2010; Uriely, 2005).

From a marketing perspective, the tourism experience has been conceptualised as various forms of tourism offerings, such as sports tourism, natural tourism and urban tourism (Volo, 2009). Another popular conceptualisation has been the institutionalised and non-institutionalised tourist (Uriely, Yonay and Simchai, 2002). Institutionalised tourists engage in mass tourism for the purposes of relaxation, while non-institutionalised tourists stray from popular tourist sites, immersing themselves in local cultures and searching for new meanings (Uriely et al., 2002). This approach of linking tourism experiences solely to the tourism offering fails to account for the variety of customer meanings and perceptions (Uriely, 2005).

In addition to these tourism offering definitions, the tourism experience essence has been an elusive concept. Reviews of the conceptualisations of the tourism experience (see for example, Volo, 2009; Uriely, 2005) highlight its time-spatial delineation as a form of distancing from the everyday life experience. The tourism experience is
juxtaposed to the mundane, everyday life experience as being an adventure and escape from the habitual environment (Quan and Wang, 2004). The sharp differentiation of the tourism experience from the everyday life experience has been challenged with demonstrations of a certain overlap (Uriely, 2005). The home experience may display aspects of the tourism experience and vice versa (Quinn, 2010). In a phenomenological study of second-home owner experiences, Quinn (2010) describes aspects of this experience which are different to the principal home experience. Therefore, the experience at the second home is a tourism experience of change/escape from the principal home experience (Quinn, 2010). Alternatively, Quan and Wang (2004) demonstrate that the novelty experience of a foreign place is infused with extensions of the everyday life experiences of eating, sleeping and rest. For example, this may be observed in tourist practices of eating occasionally in restaurants offering the tourist’s home cuisine while holidaying in a foreign country (Quan and Wang, 2004). In this line of thought, ICTs such as internet access, online banking, and interactive kiosks, for example, have become part of everyday life services which are also used by customers in tourism.

Furthermore, Quan and Wang (2004) identify ‘peak’ and ‘supporting’ experiences as distilling the essence of the tourism experience. It is demonstrated with an example from a restaurant experience that the relationship between supporting and peak experiences may be interchangeable depending on the situation (Quan and Wang, 2004). For example, restaurant experiences are commonly classified as supporting services, but on some occasions the tasting of the local cuisine may become the peak experience of the travel (Quan and Wang, 2004). Similarly, ICTs have been suggested to enhance the tourism experience, but ICT generated services may also become the peak tourism experience (Neuhofer et al., 2013).
Therefore, Gretzel and Jamal (2009) propose the redefinition of the tourism experience from escape from everyday life to search for extreme, novelty experiences. Although the boundaries between tourism experiences and everyday life and work experiences are unclear, the tourism experience still remains an experience of something exciting and different from the usual (Gretzel and Jamal, 2009; Uriely, 2005). The relativity of tourism experiences as exciting, unusual ones has been demonstrated by Andersson (2007). Using the analogy of attitudes towards the arrival of a friend, Andersson notes that for a person who does not have regular visits, this arrival may represent an exciting experience, while for another with a busy social life, this may just be an ordinary, unexciting event (Andersson, 2007). Therefore, a tourism experience is ultimately defined by the individual perception of a travel event as novel and exciting (Andersson, 2007).

Under the influence of postmodernism, the definitions of the tourism experience have become fragmented with multiple dimensions and aspects (Uriely, 2005). Having undertaken an empirical study of 339 tourists, Otto and Ritchie (1996) identify six dimensions of the tourism experience: a hedonic dimension, an interactive/social dimension, a novelty seeking or escape dimension, a comfort dimension, a safety dimension, and a stimulating or challenge-seeking dimension. Aho (2001) distinguishes four elements of the tourism experience, namely, emotional, learning, practical and transformational experiences. Hemmington (2007) notes five key dimensions of hospitality experience, including the host–guest relationship, generosity, theatre and performance, lots of little surprises, and safety and security. The tourism experience is presented as a multi-dimensional sphere and not a monolithic experience of escape by Gretzel and Jamal (2009). The sphere is pictured as a bunch of ‘spokes’ which represent crossing continuums of oppositional experiences, such as passive-active, conventional-
extreme, meaningful-generic, and virtual mediated and unmediated (Gretzel and Jamal, 2009). The diversification of the tourism experience dimensions will continue with the increasing development of technology and the provision of ever more creative tourism offerings (Gretzel and Jamal, 2009).

The elusive differentiation of the tourism experience from art, culture, work, school and other everyday life experiences has been recognised by Binkhorst and Dekker (2009) who propose a network view. In the ‘tourism experience network’, the ‘human being’ draws on various sources, such as travel agents, hotels, tour guides, technology, internet, professional occupation, other customers and airlines in co-creating experiences (Binkhorst and Dekker, 2009, p.322). The co-creation view is also evident in Andersson’s (2007, p.47) conceptualisation of the tourism experience as a ‘consumption project’. This consumption project has as an aim to yield positive experiences by the customer through the employment of a ‘consumption set’ (time, skills, goods and services) (Andersson, 2007). Therefore, it is the unique construction of the consumption set by the customer which creates and determines the tourism experience (Andersson, 2007).

The growth of ICTs in the tourism experience has been suggested as facilitating the co-creation dialogue between stakeholders in the tourism co-creation network (Binkhorst and Dekker, 2009). Web 2.0 technologies and communication platforms have impacted on the tourism experience by providing more opportunities for direct interactions between stakeholders in the tourism experience network (Neuhofer et al., 2014). Hence, traditional face-to-face, customer-employee, formats are undergoing transformation under the influence of technology (Ritzer and Jurgenson, 2010). Furthermore, company productivity has been leveraged by reducing the employees needed to produce the
service and replacing them with SSTs (Schumann et al., 2012; Meuter et al., 2000) or by increasing the efficiency of the service employees aided by ICTs (Froehle and Roth, 2004). The impact of SSTs on the tourism experience is discussed further in the next section.

2.3 SSTs in a Tourism Context

SSTs are a form of ICTs which enable customers to deliver a service independently (Meuter et al., 2000). SSTs are distinctive from other ICTs in that they not only allow for co-creation of experiences, but also for co-production of the core service offering with the customer (Hilton and Hughes, 2013). SSTs have been infusing the tourism industry with growing speed and are changing the roles of customers and companies in providing tourism services (Lawlor, 2010). In the airline industry, traditional customer check-in is in the process of being totally replaced by onsite kiosks, online check-in and mobile check-in facilities (Abdelaziz et al., 2010). Ticketing counters at train stations are being replaced by self-service kiosks (Reinders et al., 2015). Examples of how technology can change traditional hotel service include, automated check-in and check-out facilities, automated room service ordering systems, automated messaging services, and automated housekeeping services (Oh et al., 2013; Beatson, Lee and Coote, 2007). Exclusively self-service technology hotels already exist, such as the Omena Hotels in the Netherlands and Denmark, for example, which offer attractively priced accommodation in city centres (Castro, Atkinson and Ezell, 2010; Egger and Buhalis, 2008). Omena Hotel rooms are booked online, the check-in process is done online, the room key is a code received at check-in and the onsite reception desk is replaced by a 24 hour hotline which connects guests to a central customer service desk and security operation (Egger and Buhalis, 2008). The hospitality industry now provides examples
such as UK-based Inamo restaurants, where customers order their meal from interactive technology table tops (Neuhofer et al., 2013).

Although ICTs and the internet were mostly considered for their potential to empower the customer to personalise and co-create their tourism experience (Neuhofer et al., 2014), the positive correlation between technology and customer empowerment has been questioned (Pires, Stanton and Rita, 2006; Walker, Craig-Lees, Hecker and Francis, 2002). SSTs actually require the active customer involvement in the service delivery process where an employee may have been involved previously (Hilton et al., 2013). This leveraged customer role in service delivery may not be received enthusiastically by all customers creating a situation where SSTs are imposed on customers (Reinders et al., 2015; Ritzer and Jurgenson, 2010). Although there are benefits to customer involvement in service provision, there is an existing threat that SST usage may also detract value from the service experience (Hilton et al., 2013; Bendapudi and Leone, 2003).

The leveraged role of tourism customers as producers of the service poses questions regarding the readiness of customers to undertake their active role as ‘quasi-employees’ and deliver positive tourism experiences (Lawlor, 2010). The creation of memorable tourism experiences has been identified as a major competitive advantage, hence the necessity to understand the impact of SSTs on the tourism experience (Gretzel and Jamal, 2009). The tourism customer experience with SSTs requires further understanding in relation to customer participation (Lawlor, 2010) and the service co-production processes which lead to value-enhancing or value-destroying experiences (Hilton et al., 2013). Before discussing customers’ interaction with SSTs the author will now examine the nature of SSTs.
2.4 Self-Service Technologies

The aim of this section is to define the area of SST research. This section begins with a review of the definitions and concepts employed in existing literature to refer to technologies which allow for customers to deliver self-service. The concept of technology-based self-service (TBSS) is proposed by Dabholkar (1996), while Meuter et al. (2000) suggest self-service technologies (SSTs). Regardless of the argument about word formulation (Renders, Dabholkar and Frambach, 2008), both terms and research literature refer to the same service phenomenon. This research will employ the term SSTs which is gaining popularity in recent research studies (see for example, Elliott et al., 2013; Leung and Matanda, 2013). SSTs are not a homogeneous group and a number of classifications have been suggested in order to facilitate research studies (Cunningham, Young and Hu, 2013). Researchers have employed classification dimensions including purpose (Meuter et al., 2000), interface (Castro et al., 2010; Meuter et al., 2000), ownership of the interface (Schumann et al., 2012), location of the interface (Dabholkar, 1996), customised/standardised or separability/inseparability from the core service offering (Cunningham, Young and Gerlach, 2008). This section concludes with an overview of mobile devices as one of the latest interface additions to the classification of SSTs by interface (Wang and Fesenmaier, 2013; Castro et al., 2010). Since tourism traditionally involves a stay away from home, the mobile device SST platform will have specific significance to tourism.

2.4.1 Definition of Self-service Technologies

The permeation of technology in customer self-service started attracting research attention in the 1980s, with Bateson (1985) including automated teller machines (ATMs) and pay-at-the-pump automated self-service in his research of customer usage
of self-service options. The first term introduced by Dabholkar (1994) to reflect this self-service customer-technology interaction is ‘technology-based self-service’ (TBSS). Dabholkar and Bagozzi (2002, p.184) define technology-based self-service as including ‘on-site’ and ‘off-site’ elements:

Technology-based self-service includes “on-site” options such as touch screens in department stores, information kiosks at hotels, and self-screening in grocery stores and libraries; it also includes “off-site” options such as telephone and on-line banking and shopping on the Internet.

‘Self-service technologies’ is another term reflecting the self-service customer-technology interaction which is introduced by Meuter et al. (2000, p.50) and defined as:

Technological interfaces that enable customers to produce a service independent of direct service employee involvement. Examples of SSTs include automated teller machines (ATMs), automated hotel checkout, banking by telephone, and services over the Internet, such as Federal Express package tracking and online brokerage services.

SSTs and TBSS are used interchangeably in the research literature although Reinders et al. (2008) argue that TBSS is a more accurate term because it accentuates the self-service process rather than the technology. Studies into TBSS (see for example, Dabholkar and Spaid, 2012; Reinders et al., 2008; Kinard, Kapella and Kinard, 2009) and SSTs (see for example, Wang et al., 2012; Dean, 2008; Curran and Meuter, 2007) provide equally important contributions to our knowledge of challenges to the successful implementation of technologies being used by customers to deliver self-service. Recent studies have displayed a preference for the term SSTs (see for example, Cunningham et al., 2013; Elliott et al., 2013; Leung and Matanda, 2013). Therefore, the term that will be used throughout this thesis is that of SSTs in order to comply with the prevailing trend and avoid ambiguity.

SSTs are not new to consumer service. The banking industry has been a leader in the adoption of SSTs with the introduction of the ATM in 1967 by Barclays Bank in London, UK (Abdelaziz et al., 2010). SSTs have since been adopted in industries such
as retail, education, health care, government services, insurance, financial services, transport and tourism. Popular SSTs include interfaces such as self-checkouts in supermarkets (Wang et al., 2012; Dabholkar, Bobbitt and Lee, 2003), e-commerce websites (Connolly and Bannister, 2008; Forbes, Kelley and Hoffman, 2005), train ticketing kiosks (Reinders et al., 2008), internet banking (Yousafzai, Pallister and Foxhall, 2009; Walker and Johnson, 2006), touch screens for ordering at fast-food restaurants (Dabholkar and Bagozzi, 2002) and m-commerce (Lu and Su, 2009; Ondrus and Pigneur, 2006).

SSTs are often part of multi-channel services and hence should not be researched in isolation from the other service modes available to customers (Wang et al., 2012). Multi-channel service is characterised by the provision to customers of more than one service delivery channel, such as personal service, telephone channels, company websites and onsite kiosks (Neslin and Schankar, 2009). Wallace, Giese and Johnson (2004) differentiate between two multi-channel modes, namely, channel mix and channel integration. Channel mix relates to the offering of a number of personal or SST options of access to the service (Wallace et al., 2004). For example, an airline may offer its passengers a facility to check-in online, via a smart phone, at a check-in kiosk or at the personal check-in desk. The service modes in a channel mix offer the same incremental service, so the customer needs to select the optimal channel among the offered options (Wallace et al., 2004).

The strategy of channel integration captures the offering of complementary service options throughout the service delivery (Wallace et al., 2004). In this way, each channel offers added benefits, or eliminates the disadvantages of other company channels (van Birgelen, Bobbitt and Lee, 2006). For example, a retail customer may search for a
product online, order it in store from a kiosk and have it delivered to their home, or they may check stock online, pay online and collect in-store if they prefer to try it on (Berman and Thelen, 2004). Taking into consideration that the service market consists of multiple companies which may offer multiple channels for customer contact, the service landscape is referred to as being a multi-company, multi-channel landscape (Larivere, Aksoy, Cooil, and Keiningham, 2011).

Since SSTs are a diverse group, the following section discusses the existing classifications of SSTs.

**2.4.2 Classifications of SSTs**

This section provides a discussion of the various classifications of SSTs in the literature to date. One of the first classifications of SSTs is proposed by Dabholkar (1994). She suggests a classification of technology-based services consisting of three dimensions: by whom, where and how the service is delivered. The first dimension relating to ‘who’ delivers the service differentiates between the customer and the employee using the technology to deliver the service (Dabholkar, 1994). This dimension does not specifically relate to SSTs as employee usage of technology is not self-service (Anselmsson, 2001). The second dimension relating to ‘where’ the service is delivered divides technology-based services into those delivered at the service site and those delivered from the customer’s home or workplace (Dabholkar, 1994). Gelbrich and Sattler (2014) and Collier, Sherrell, Babakus and Horky (2014) introduce the public/private dimension to differentiate the social context of SST delivery. Public SSTs are generally used at the service site where interaction between patrons may take place (Collier et al., 2014). Private SSTs allow for encounters to take place without interactions with others, such as internet and interactive phone systems (Collier et al., 2014).
The third dimension, relating to ‘how’ the service is delivered includes the options of direct interaction with the technology or indirect contact (Dabholkar, 1994). The dimensions of where and how the service is delivered are adapted and developed by Anselmsson (2001) for SSTs. SST delivery may take place at the service site or at the customer’s home or work (Anselmsson, 2001). For example, an ATM or an airport check-in kiosk would be classified as SSTs at the service site, while internet shopping and distance learning would be at the customer’s site (Anselmsson, 2001). The SST service may be direct when the customer directly interacts with the technology, such as self-scanning, or indirect when the customer is not in direct interaction with the technology, such as automated time schedules (Anselmsson, 2001).

Another typology of SSTs is proposed by Meuter et al. (2000) who categorise SSTs according to the dimensions of interface (for example, telephone/interactive voice response, online/internet, interactive kiosks and video/CD) and purpose (for example, customer service, transactions and self-help). The interface dimension reflects the types of technological interfaces that customers interact with, and the dimension of purpose reflects the tasks that customers can achieve by using the SST. It is noticeable from later reviews of SST interfaces (see for example, Castro et al., 2010) that the video/CD interface is not as prominent and that other interfaces such as smart phones and mobile devices are discussed. The mobile devices section is not present in Meuter et al.’s (2000) classification, due to the lack of availability of smart phones and mobile internet access in consumer markets at the time. Smart phones are presently used for commercial and financial transactions, online reservations, airline check-in and boarding and mobile banking (Castro et al., 2010). Section 2.4.3 focuses on mobile technologies and the opportunities they provide as one of the latest platforms for self-service provision in the general services sector, and specifically in the travel and tourism industry.
Cunningham et al. (2008) recognise that the existing classifications of SSTs are not based on empirical testing of customer views. They offer a different perspective by researching how consumers view SSTs. Cunningham et al. (2008) tested 11 classifying dimensions of services derived from the services management literature, including physical product component, customer-employee contact, the extent to which service production is separable/inseparable from consumption and risk level. Consumers classed SSTs along two main dimensions: customised-standardised and separable-inseparable. The customised-standardised dimension represents the option of customisation of the service by customers, such as online banking and flight reservations, while retail self-scanning is viewed as a standardised SST (Cunningham et al., 2008). Depending on the separability of the SST from the core service offering, SSTs were viewed as separable, such as online reservations, for example, and inseparable, such as ATMs (Cunningham et al., 2008).

Cunningham, Young and Gerlach (2009) further compare a traditional service classification versus an SST classification from a consumer’s point of view. Their results suggest that although SSTs are still viewed as two-dimensional like traditional services, there are some substantial differences. The dimension of whether the service is customised or standardised remains equally important for both traditional services and SSTs. The traditional services dimension of whether the service is performed on a person or object has been transformed in an SST context to represent the separability of the SST from the core product or service. Cunningham et al. (2009) conclude that if SSTs are not viewed by consumers the same way as traditional face-to-face encounters, management strategies for traditional services cannot be fully transferred to SSTs.
Furthermore, Schumann et al. (2012) propose that SSTs can be classified based on the provision of the technological interface by the service provider (provider-based self-services) or by the consumer (consumer-based self-services). Forbes et al. (2005) and Forbes (2008) research SST service failure and recovery strategies under two broad groups: internet SSTs (e-commerce websites) and non-internet SSTs (such as kiosks and telephone selection menus). This approach of devising service classifications for the purposes of solving specific management challenges has been applied and advocated as effective for management research (Shafti, Van der Meer and Williams, 2007). A summary of SST classifications and specific examples are presented in Table 2.1. This table has been developed by the author, and it represents a synthesised illustration of the diversity of SSTs and the myriad of dimensions applicable to their classification.
Table 2.1 SST Classification Dimensions

<table>
<thead>
<tr>
<th>Authors</th>
<th>Dimension</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dabholkar (1994)</td>
<td>Where is the service delivered? (at service site, at customer’s home or work)</td>
<td>At service site - library checkouts, ATMs, tourist information At customer’s site - internet shopping, financial transactions, distance learning</td>
</tr>
<tr>
<td>Anselmsson (2001)</td>
<td>How is the service delivered? (direct, indirect)</td>
<td>Direct – self-scanning at retail, online information Indirect – telephone banking, automated time schedules</td>
</tr>
<tr>
<td>Meuter et al. (2000)</td>
<td>Purpose (customer service, transactions, self-help)</td>
<td>Customer service – order status, account information, ATMs Transactions – financial transactions, pay at the pump Self-help – internet information search, tourist information</td>
</tr>
<tr>
<td></td>
<td>Interface (telephone/interactive voice response, online/internet, interactive kiosk, video/CD)</td>
<td>Telephone – telephone banking, information telephone lines Online – retail purchasing, distance learning, order tracking Kiosk – ATMs, hotel checkouts, blood pressure machines Video/CD – tax preparation software, CD-based training</td>
</tr>
<tr>
<td>Forbes (2008), Forbes et al. (2005)</td>
<td>Internet medium (internet, non-internet)</td>
<td>Internet – e-commerce Non-internet - kiosks</td>
</tr>
<tr>
<td>Cunningham et al. (2008)</td>
<td>Customisation of service (customised-standardised continuum)</td>
<td>Customised – airline reservations, online banking, online auctions Standardised – retail self-scanning, interactive phone</td>
</tr>
<tr>
<td></td>
<td>Separability of production from consumption (separable-inseparable continuum)</td>
<td>Separable – online car buying, online reservations Inseparable – interactive phone, ATMs, tax software</td>
</tr>
<tr>
<td>Schumann et al. (2012)</td>
<td>Ownership of the technology (provider-based, customer-based)</td>
<td>Provider-based – ATMs Customer-based – online banking</td>
</tr>
<tr>
<td>Collier et al. (2014); Gelbrich and Sattler (2014)</td>
<td>Presence of other customers (private, public)</td>
<td>Private – online shopping, online banking, interactive phone systems Public – ATM, self-checkout</td>
</tr>
</tbody>
</table>

Source: The Author.
SSTs consist of a technology ingredient and a self-service ingredient (Bobbitt and Dabholkar, 2001). This is evident in the classifications discussed above. The dual nature of SSTs is reflected in Meuter et al.’s (2000) classification in which one dimension is identified as ‘interface’ and the other is ‘purpose’. The review of the key typologies of SSTs displays a common trait of deriving classification dimensions from SST characteristics. For example, Cunningham et al. (2008) explore the customer view on SST service dimensions, Dabholkar (1994) considers the location of the technology and the tangibility of the technology interface, and Castro et al. (2010) and Meuter et al. (2000) differentiate SSTs based on the technological interface used to interact with the customer. The exception is Meuter et al.’s (2000) dimension of purpose which takes into account the customer perspective on what they can achieve through SST usage. Most classifications of SSTs have been developed before the wider dissemination of internet mobile devices in consumer markets. Therefore, the next section discusses mobile devices as a platform for SST service.

2.4.3 Mobile Technologies

The difference between mobile devices and other types of SST interfaces is that they provide for mobile delivery of the self-service (Castro et al., 2010). Since 2007, Self-Monitoring, Analysis and Reporting Technology (SMART) mobile devices have been gaining rapid adoption by customers (comScore, 2015; KPMG, 2012). In 2014, there were 2.6 million smartphone users globally and this number is expected to reach 6.1 million by 2020 (Ericsson Mobility Report, 2015). In 2012, only 8% of customers preferred to access the internet on their mobile phone and 6% on their tablet (KPMG, 2012). In 2015, mobile is surpassing desktop for digital media access in developed countries (comScore, 2015). Statistics from March 2015 report that people are more inclined to access the internet on a mobile device than at a desktop. For example, 52%
were in favour of mobile devices in Canada, 56% in UK and 61% in USA (comScore, 2015). Furthermore, users are accessing digital content on more than one device at a time and seeking device synchronisation (Accenture, 2015; Mintel US Consumer Trends, 2015).

Meuter et al.’s (2000) classification of SSTs does not recognise mobile technologies, but their advancement as an SST platform is evident in Castro et al.’s (2010) research. This area of service technology is still largely unexplored despite the fact that mobile phones are becoming as popular as computers in their application as a service media (comScore, 2015; Law, Buhalis and Cobanoglu, 2014). Furthermore, intelligent connected devices are already becoming a reality, with smart home appliances, wearable reporting technology embedded in clothes and everyday objects being increasingly embraced (Accenture, 2015).

Furthermore, smart phones may integrate SSTs previously delivered via kiosks, computers and telephone (Ondrus and Pigneur, 2006), together with technology-mediated personal service options; as such they are becoming an all-in-one technological service interface (Dialogic, 2011). The convergence and easy transfer from SST to personal contact offers opportunities for improved customer service, but it may also raise challenges in terms of the seamless transfer of information and customer service across platforms (Accenture, 2015; Dialogic, 2011). The budding academic marketing research into mobile technologies in customer service markets has started focusing on the customer adoption of m-commerce (see for example, Chong, Chan and Ooi, 2012; Hung, Yang and Hsieh, 2012; Islam, Khan, Ramayah and Hossain, 2011). In contrast to academic research, the industry reports on customer usage of mobile devices (Accenture, 2015; KPMG, 2012) appear to be more interested in the phenomenon of
convergence between communication and service delivery channels enabled by mobile platforms and smart devices.

Consumers have already adopted multiple communication platforms and technological interfaces, with mobile devices showing fast growth (Mintel US Consumer Trends, 2015). Furthermore, mobile searches have been found to trigger multi-channel conversions, such as a visit to the store, search or purchase on a computer, calls for more information and word-of-mouth (Mintel US Consumer Trends, 2015; Google/Nielsen Report, 2013). Therefore, the infusion of smart devices in services brings to the fore the necessity to adopt a multi-channel approach when researching customer behaviours. Furthermore, it becomes evident that multi-channel services may not necessarily include a personal option, but exclusively consist of multiple converged SST options (Google/Nielsen Report, 2013). The mobile technology platforms as communication and transaction channels highlight the urgency of exploring current gaps in the multi-channel service research, such as customer motives for multi-channel usage (Schroeder and Zaharia, 2008) and customer responses to multi-channel strategies (Chatterjee, 2007; van Birgelen et al., 2006).

The rise of mobile technology is in its early stages with predictions that the next major revolution will be called ‘ambient intelligence’ (Accenture, 2015) or ‘technology-enhanced, immersive service environments’ (Neuhofer et al., 2014). These predictions further emphasise the concepts of technology convergence and communication across various channels and platforms and are starting to materialise in the Google Glass project, although the project suffered from shortcomings and was not launched successfully (BBC News, 2015). Despite these teething problems, the Google Glass project has been attracting much attention from developers at conferences (Tussyadiah,
2014), and Google has remained committed to further development of the project (BBC News, 2015). Already, parking meters in San Francisco use connected technology to inform users of the levels of parking difficulty and availability of parking spaces (Accenture, 2015). Smart technology is already entering fashion with brands like Ralph Lauren and Nike launching new lines of smart shirts and trainers (Accenture, 2015).

The development of ICTs and newer forms of SSTs will continue to infuse all service sectors, including the tourism sector (Abdelaziz et al., 2011); therefore, the following section discusses the benefits and disadvantages of SST implementation.

2.5 Benefits and Drawbacks from Implementing SSTs

There are benefits to be gained from implementing SSTs, both for the customer and the service provider (Lawlor, 2010). According to Anitsal and Schumann (2007), not only the service provider but also the customer needs to perceive gains from using SSTs for their successful implementation. Customer adoption of SSTs is central to their successful implementation, so service providers need to be familiar with what might encourage or discourage customers from using SSTs (Bitner et al., 2002). SSTs can be accompanied by some limitations and disadvantages for the service provider, which also need to be considered and weighed against the potential rewards (Lee and Allaway, 2002).

SSTs may reduce the employees necessary for a service operation which represents a major operational cost savings advantage for companies (Lawlor, 2010). Even so, if customers perceive the SST as being solely a company cost-saving measure, they are likely to develop negative attitudes toward the SST and the company (Bitner, Ostrom and Meuter, 2002). SST implementation may be perceived as depriving customers of
personal contact and a reduction in the quality of the service (Gerrard, Cunningham and Devlin, 2006). SSTs may also be associated with job losses and may be perceived by the public as a socio-economic threat (Schumann et al., 2012; Castro et al., 2010). Although SSTs may create new markets and opportunities, the immediate job losses may affect the image of the business if the transition is not communicated in a positive manner by governments and businesses (Castro et al., 2010). SST implementation may represent a disruptive organisational and social change which requires informed and professional leadership and management (Castro et al., 2010; Lee and Allaway, 2002). This section reviews the benefits of SST implementation for service providers and customers and evaluates them against the drawbacks.

2.5.1 Benefits for Service Providers

Service providers have significant benefits to gain from successfully implementing SSTs, including operational cost reductions and improved productivity (Bitner et al., 2002; Berry and Lampo, 2000). When customers deliver service through SSTs they act as ‘partial employees’ of the company by undertaking some responsibilities previously performed by company employees (Collier and Kimes, 2013). The ensuing reduction of company employees needed in the service operation provides for operational cost savings. Specifically, the implementation of SSTs may not only result in staff reduction, but also in changes of the staff functions and roles in the service operation (Hilton et al., 2013). In traditional customer-employee service encounters, the employee’s function is to deliver a service for the customer, whereas in an SST context, the employee’s function is transformed to a training role in terms of monitoring and supporting customer SST usage (Hilton et al., 2013). Customers still expect employees to be available to assist them when something is wrong with SSTs (Forbes, 2008), and the
availability of an employee fall-back option may mitigate negative perceptions of SSTs (Liu, 2012; Reinders et al., 2008).

Thus, service staff does not have to perform routine duties, but may concentrate on other aspects of service delivery where a personal touch is more important (Lee and Allaway, 2002). For example, in hospitals, medical staff might be freed from clerical duties, enabling them to concentrate on providing more care for their patients (Castro et al., 2010). In addition to cost saving, retail companies can increase product availability through online orders and free up valuable floor space for more sales (Collier and Kimes, 2013). This increase in quality, accompanied by lower prices, can lead to higher customer satisfaction and loyalty (Bitner et al., 2002). Furthermore, SST service may be more stable and consistent than personal service because it is not as affected by the volume of service demand or the employee’s moods and personal characteristics (Leung and Matanda, 2013; Weijters et al., 2007).

SSTs can be the engine of innovation in service creation and delivery; thus, differentiating the company through the development of niche offerings (Oh et al., 2013). For example, the Inamo restaurants in London have become famous because they offer an innovative, technology-facilitated, self-service restaurant experience (Neuhofer et al., 2013). Self-service technology usage is part of the core Inamo guest experience and has become a major competitive advantage for the company (Neuhofer et al., 2013). In the hospitality sector, the hotel chain Omena offers its customers cheap, good quality hotel stays in premium locations due to customers using SSTs to book, check-in and pay for their stay (Castro et al., 2010). Similarly, the concept of low cost airlines is based on the implementation of SSTs at all stages of the journey (Castillo-Manzano and Lopez-Valpuesta, 2013). The innovative implementation of SSTs also contributes to the overall
image of the provider as a technologically advanced leader in electronic service
(Castillo-Manzano and Lopez-Valpuesta, 2013).

Implementing SSTs may be a matter of responding to competitive pressure and
customer demand (Raymond, 2010), and may become a necessity if a company wants to
remain competitive. There is a global increase in the use of automated services which
are becoming the norm for both customers and service providers (Mintel US Consumer
Trends, 2015). For example, SST implementation enables low-cost airlines to maintain
competitive prices (Castillo-Manzano and Lopez-Valpuesta, 2013). The Mintel
consumer report on service trends suggests that automated service has been welcomed
by consumers and this trend will continue in areas where automation provides speed and
faster access to services (Mintel US Consumer Trends, 2015). E-commerce is also
showing continued growth with world e-commerce sales growing by 21.1% to $1
trillion in 2012 and a forecasted growth of 18% in 2013 reaching to $1.298 trillion
worldwide (eMarketer, 2013).

The continuous fast adoption of technology by customers and the availability of
advanced mobile internet connected devices provide ever more opportunities for service
providers to offer value to their customers (KPMG, 2012). SSTs provide opportunities
for direct relationships between customers and service providers and the building of
customer loyalty (Collier and Kimes, 2013). Internet websites and booking engines can
generate revenue by creating conditions to reach new markets on a global scale (Bitner
et al., 2002). Large airline and hospitality companies have developed superior web
pages with real time booking options, which has significantly reduced revenue lost to
intermediaries (Egger and Buhalis, 2008). SSTs also provide an opportunity for
extended contact with the customer across multiple channels, which increases cross-
channel synergies and opportunities for realising more service offerings (van Birgelen et al., 2006). When entering information on an SST interface, customers also provide information which can be utilised by service providers in better targeting their customers and offering more customised service (Neuhofer et al., 2013).

This section examined the benefits and accompanying implications for the organisation from SST implementation. Given that this doctoral research seeks to focus on the customer perspective on SSTs, the following section will provide an in-depth analysis of the benefits and gratifications that customers derive from SST usage.

2.5.2 Benefits for Customers

SSTs enable active customer participation in the delivery of the core service, thus turning customers into co-producers (Gelderman et al., 2011). This empowerment of customers to co-produce the service provides them with numerous benefits, including greater control over the service, convenience, price and time savings (Meuter et al., 2003). Researchers suggest that by actively participating in the service delivery, the customer feels in control, contributing to the service quality and thus being in charge of their own satisfaction (Lawlor, 2006; Dabholkar et al., 2003; Berry and Lampo, 2000; Bitner, Brown and Meuter, 2000). Putting customers in greater control provides for better customisation and hence satisfaction with the service (Neuhofer et al., 2013). Thus, SST customers appreciate the greater control and identify it as a reason to use SSTs (see for example, Liljander et al., 2006; Dabholkar et al., 2003; Mauter et al., 2003).

SSTs may be more convenient than their personal alternative because they extend service access and reduce customer effort to obtain the service (Collier and Kimes, 2013). Research into the perceived benefits offered by SSTs can provide answers as to
why customers may choose to use them (Meuter et al., 2000). Customers indicate that SSTs provide them with better access to the service and with increased speed of service delivery (Schumann et al., 2012; Meuter et al., 2003; Meuter et al., 2000). A SST, such as an ATM, makes a service available 24 hours a day, seven days a week, rather than being restricted to the daytime working hours of the bank. An SST, such as an online shopping website, empowers customers by giving them control over the transaction, which they can complete at their convenience and without being rushed (Castro et al., 2010).

The option to complete services at the customer’s convenience may reduce the overall stress and hassle of service encounters (Cunningham et al., 2013). Customers report that they choose SSTs when they are perceived as easy to use (Dabholkar et al., 2003; Meuter et al., 2000) and delivering high quality service (Meuter et al., 2003; Bitner et al., 2000). In general, SSTs are preferred if they offer a service delivery mode which exceeds the personal alternative (Meuter et al., 2003; Meuter et al., 2000). Increased access to the service may also refer to improved accessibility for people with certain disabilities (Buhalis and Law, 2008). SSTs make services more accessible for people with certain mobility, speech, sight and hearing disabilities (Castro et al., 2010). For example, people with a mobility disability may find online shopping very convenient (Castro et al., 2010). Furthermore, tourists in a foreign country may find an information kiosk or car rental kiosk with a multitude of language options very helpful (Castro et al., 2010).

The rapid development and adoption of mobile technologies by consumers offers an even more convenient platform for access to services on the move (KPMG, 2012). Mobile devices further enhance the accessibility benefit from SST usage by offering a
platform where various SSTs may be provided in a converged and convenient manner (KPMG, 2012). For example, a customer may consult a retailer’s website about the availability of a product, make a phone call, and then at the store pay via scanning the product, all with their smart phone (Google/Nielsen Report, 2013). These cross-channel synergies increase the flexibility of the service delivery process and the overall customer satisfaction (van Birgelen et al., 2009).

SSTs may put customers in control of service costs and provide price transparency (Wünderlich et al., 2013). For example, electricity self-service meters provide customers with the opportunity to monitor their energy usage and reduce their electricity bills (Wünderlich et al., 2013). Some service companies may offer a monetary incentive for using SSTs, such as a cheaper price for customers who pump their own petrol, or reduced prices for those buying or paying online (Konus et al., 2009). In other cases, such as low cost airlines, consumers hunt for cheaper prices by having access to real time booking information (Egger and Buhalis, 2008). Money savings is suggested as a reason to use SSTs in Meuter et al. (2003) and Meuter et al. (2000).

The intrinsic benefit of being in control of the transaction is linked to customisation and risk reduction (Jacob and Rettinger, 2011). Although SST usage is associated with various dimensions of risk, such as performance, financial and privacy risk (Kim et al., 2009; Cunningham et al., 2008), paradoxically customers also consider SST usage as reducing service risk (Kelly, Lawlor and Mulvey, 2013a; Jacob and Rettinger, 2011). Where the service is complex and has many parameters, the customer may prefer to use an SST in order to achieve better customisation and satisfaction (Jacob and Rettinger, 2011). Furthermore, in service contexts like tourism where customers find themselves in
an unfamiliar environment, they may prefer to reduce this uncertainty by pre-booking services and gaining service information beforehand (Kelly et al., 2013a).

Using SSTs can also provide some customers with intrinsic benefits such as feelings of independence and enjoyment (Dabholkar et al., 2003; Meuter et al., 2003). Bateson (1985) confirmed the existence of a segment of self-service users who enjoy self-service even when there are no particular utilitarian benefits, such as lower price, control or convenience. Some consumers even admit using SSTs in order to avoid the personal contact with service employees (Cunningham et al., 2009; Dabholkar et al., 2003). This is because customers suggest that they can deliver the service in a more efficient and accurate manner when using SSTs on some occasions (Meuter et al., 2003). Employee intervention is also deemed to affect the efficiency of the service process negatively (Jacob and Rettinger, 2011). Some customers prefer to avoid the personal service because of the time involved in obtaining it (Lovelock and Young, 1979). And lastly, customers may derive the benefit of self-development and growth from SST usage (Jacob and Rettinger, 2011).

Despite all the listed benefits gained from introducing SSTs in the service encounter, research also demonstrates that certain limitations and drawbacks for both customers and service providers need to be overcome or taken into account. These limitations are discussed in the following sections.

2.5.3 Drawbacks for Service Providers

The implementation of SSTs may present certain drawbacks for service providers in terms of expenses and threats to the quality of the provided service. SSTs reduce the points of customer-employee contact during the service delivery process which may pose challenges to customer relationship building, up-selling opportunities and branding
Furthermore, SST implementation may be perceived as depriving customers of personal contact and a reduction in the quality of the service (Gerrard et al., 2006). Service companies may need to change their customer relationship strategies and adapt them to the machine-customer encounter (Halstead and Richards, 2014; Schumann et al., 2012). The reduced customer-employee contact leaves fewer chances for early detection of complaints and opportunities for service recovery (Dabholkar and Spaid, 2011; Berry and Lampo, 2000). Girman, Keusch and Kmec (2009) found that complaint rates for minor faults with SSTs were very low, so service providers should be proactive and fix faults in routine checks before they appear rather than wait for them to happen.

SST implementation may also be associated with job losses and perceived by the public as a socio-economic threat (Schumann et al., 2012; Castro et al., 2010). Although SSTs may create new markets and opportunities, the immediate job losses may affect the image of the business if the transition is not communicated in a positive manner by governments and businesses (Castro et al., 2010). SST implementation may represent a disruptive organisational and social change which requires informed and professional leadership and management (Castro et al., 2010; Lee and Allaway, 2002).

Future research still has to uncover if human-like features incorporated in the technology design, such as avatars, may be a solution to the decreased customer-employee contact during SST service (Schumann et al., 2012). Research into the faults of virtual agents suggests that this strategy may actually damage the company-customer relationship (Mimoun, Poncin and Garnier, 2012). When the virtual employee acts as a cue for human interaction, customers develop expectations that the communication will be similar to a conversation between humans, which may cause disappointment if the
virtual employee fails to match these expectations (Mimoun et al., 2012). Therefore, this further highlights the new challenges that SSTs represent for service providers.

Meuter et al. (2000) found that in SST encounters, as compared to personal encounters, customers are less inclined to take blame for unsuccessful transactions and tend to attribute them to the technology and the provider. Similarly, Meuter et al. (2003) report that in satisfactory SST encounters, 49% of respondents attribute the success to the firm while in dissatisfactory encounters 72% attribute the failure to the firm. SSTs have a similar effect on loyalty, and Makarem, Mudambi and Podoshen (2009) find that consumers who are satisfied with personal service are significantly more likely to engage in repeat business and positive word-of-mouth than the ones satisfied with a technology enabled service. Furthermore, consumers who are disappointed with an SST are more likely to change service providers and engage in bad word-of-mouth than the customers who received personal service (Makarem et al., 2009). Therefore, the potential for SSTs to magnify negative service encounter perceptions is evident (Makarem et al., 2009). Furthermore, the application of traditional service recovery strategies to SST failures is suggested to be ineffective (Forbes, 2008; Forbes et al., 2008), raising challenges for service providers to handle SST failures (Zhu et al., 2013).

As such, before implementing SSTs, service managers should consider carefully if the potential savings are going to be higher than the revenue lost to complaints and lost custom (Makarem et al., 2009).

Other limitations of SSTs from a service provider’s perspective relate to investment expenses, and staff and customer training (Bitner et al., 2002; Lee and Allaway, 2002). If the service technology is not adopted and used effectively by customers, the company may face increased expenses because it needs to keep operational staff, as well as pay
for the new technology (Lee and Allaway, 2002). In order for customers to be effective in their usage of SSTs, they need to know their production role, be able to perform it and feel motivated to do so (Meuter et al., 2000). While the technology side of the encounter is wholly within the power of the service provider, the customer side is dependent on the active participation of a human resource which is not officially employed by the organisation (Hilton and Hughes, 2013; Halbesleben and Buckley, 2004).

Therefore, customer participation in SST service may pose risks to the quality of the service outcome and the organisational productivity (Bateson, 1985). Although companies have to manage customer participation in service, this process may be challenging because the boundaries of customer participation may be difficult to define and communicate to customers (Mills and Morris, 1986). Furthermore, customer perceptions of their responsibilities during SST service may affect their attitude towards co-production and engagement with SSTs (Eastlick, Ratto, Lotz and Mishra, 2012). In service situations where customers have to share the usage of the SST, an underperforming customer may negatively affect the service experience of other customers (Bateson, 1985). The facilitation of effective customer SST adoption is dependent not only on emphasising the benefits for the customer from SST usage, but also on overcoming the drawbacks (Meuter et al., 2000).

2.5.4 Drawbacks for Customers

Despite the numerous identified potential benefits for the customer from SST usage, they may not always be perceived as such by customers (Walker et al., 2002). Customers avoid SSTs when they do not perceive any benefit from, or need to use them (Gerrard et al., 2006; Liljander et al., 2006). There are also barriers which customers
need to be willing and able to overcome in order to use the SST (Walker et al., 2002). Gerrard et al. (2006) finds that banking customers avoid online banking because they lacked the necessary equipment (for example, a computer or internet connection) to avail of the service. Although technology adoption in the developed world is increasing (Accenture, 2015), accessibility to technology is still an issue in developing countries (Nilsson, 2007).

Even though SSTs are suggested to increase customisation opportunities (Jacob and Rettigner, 2011), they may nevertheless be insufficient in their provision of all customer requirements. On such occasions, customers may wish to resort to a personal service channel (Kelly et al., 2013a; Walker et al., 2002). Furthermore, even those who have favourable attitudes towards technology may avoid SSTs because they cannot replace personal interaction (Dabholkar et al., 2003; Lee and Allaway, 2002). SST service is suggested as lacking the ability to fulfil customer desires for personal interaction during service encounters (Gerrard et al., 2006; Liljander et al., 2006; Dabholkar et al., 2003). The personal element in service may be valued and preferred by certain customers because they view service encounters as social experiences (Jacob and Rettinger, 2011). A characteristic of this customer segment may be their older age (see for example, Lee et al., 2010; Dean, 2008).

The adoption of SSTs, requires customers to learn a new service role and to follow procedures (Bitner et al., 2002; Berry and Lampo, 2000), which some customers perceive as requiring too much effort (Dabholkar et al., 2003). SSTs also require higher levels of customer participation and responsibility, so they may be perceived as riskier than personal services (Lee and Allaway, 2002). Customers may avoid SSTs because they are unsure of how to use them (Gerrard et al., 2006; Liljander et al., 2006; Meuter
et al., 2003) or find the task arduous and difficult to learn (Liljander et al., 2006). The unwillingness to invest time to learn new tasks is confirmed in the customer suggestion that they avoid SSTs because of habit and inertia (Gerrard et al., 2006; Liljander et al., 2006). Furthermore, the time and effort that customers expend when they engage with SST service may at times be evaluated as exceeding the benefits gained (Jacob and Rettinger, 2011; Anitsal and Schumann, 2007).

A customer’s technology readiness (Lin and Chang, 2011) and technology anxiety (Meuter et al., 2003) are important predictors of customer usage or rejection of SSTs. Therefore, SSTs may result in negative psychological outcomes for the customer such as anxiety (Meuter et al., 2003) or embarrassment (Forbes, 2008). Another negative psychological outcome for the customer may be the perceived loss of freedom when service providers force SST usage on them (Liu, 2012; Reinders et al., 2008). Forced SST usage may also raise technology anxiety levels in customers, especially if they do not have previous experience with the SST or fall-back options are not available (Liu, 2012).

The high level of failure associated with SSTs still represents a drawback for customer SST usage (Zhu et al., 2013; Forbes, 2008). Customers may reject SSTs because of ‘technology failure’, ‘process failure’, ‘poor design’ and ‘customer-driven failure’ (Meuter et al., 2000, p.56). Customers may feel abandoned when an SST fails and there are no employees around or another means of contact to resolve the problem (Forbes, 2008). Customers may also experience helplessness during SST failures and negative outcomes from inefficient service recovery (Forbes, 2008; Bitner et al., 2002). These negative emotional outcomes for the customer represent psychological drawbacks from using SSTs (Anitsal and Schumann, 2007).
There are perceptions amongst customers of financial, privacy and security threats when using SSTs (McKnight, Choudhury and Kacmar, 2002). There is a risk of ordering the wrong product or service online (Cases, 2002) and having a credit card compromised (KPMG, 2012). It is also much harder for customers to verify the trustworthiness of online vendors, and thus they are vulnerable to becoming victims of fraud (Connolly and Bannister, 2008). The lack of trust in the service provider may become a substantial barrier for customers to engage with SSTs (KPMG, 2012; Connolly and Bannister, 2008; Gefen, Karahanna and Straub, 2003).

Despite the numerous benefits for both service providers and customers from SST usage, the identified drawbacks may challenge effective SST implementation. The key challenge in SST implementation has been the introduction of customers to their new co-production role (Schumann et al., 2012). Recent studies continue to focus on customer resistance to SST usage (see for example, Patsiotis et al., 2013) and the question of how to reduce the negative effects from ‘forcing’ customers to use SSTs (see for example, Liu, 2012; Konus et al., 2009). Even so, the implementation of SSTs in the service sector is increasing and will continue to do so (Castillo-Manzano and Lopez-Valpuesta, 2013; Castro et al., 2010). This raises the question as to whether tourism customers are really comfortable with their active SST co-production role, despite the increasing implementation of SSTs in the tourism sector (Neuhofer et al., 2014; Lawlor, 2010). The customer experiences with SSTs are an integral part of the overall tourism experience (Neuhofer et al., 2014; Quan and Wang, 2004) and therefore, the following section discusses research into customer SST experiences.
2.6 Understanding Customer SST Experiences

Dabholkar (1994) recognises the lack of academic research focusing on the effects of technology on service delivery. The traditional services research had been concerned mainly with the consumer-employee relationship, while ignoring the changing nature of this relationship due to the introduction of technology (Bitner et al., 2000). The introduction of technology affects service delivery in two main ways: it can enable employees to deliver a more efficient service, and it can provide customers with self-service delivery options (Bitner et al., 2000). When employees are enabled by technology, this is in its essence still a customer-employee interaction. The self-service, customer-technology interaction, which is broadly independent of direct employee involvement, is suggested to be more challenging from a service management point of view (Zhu et al., 2013). In a non-employee service delivery atmosphere, it may be challenging to build customer relationships and rectify service failures (Bitner et al., 2000).

The advance of SSTs has led to the rise of multi-channel service environments where customers have the choice of how they would like to interact with the company (Wang et al., 2012). The service channels may include a mixture of personal and technology-enabled and SST channels. In comparison to single channel customers, multi-channel customers have been found to be of higher value for the company because they spend more and display higher levels of satisfaction and loyalty (Scherer et al., 2015; Bergman and Thelen, 2004). The offering of multiple channels may be advantageous in fulfilling the needs of more customer segments; however, the upkeep of multiple channels with consistently high quality may be costly and challenging for the company (Montoya-Weiss, Voss and Greval, 2003). In practice, the contact with customers over
one SST channel is deemed the most cost efficient for companies and they have attempted to encourage/oblige their customers to use the channel that the company has selected (Konus et al., 2009; Reinders et al., 2008).

The challenge faced by management of compelling customers to use SSTs has attracted research attention relating to customer evaluations of SSTs (see for example, Weijters et al., 2007; Meuter et al., 2000; Dabholkar, 1996) and the factors which may promote customer intentions of trial and usage (see for example, Kim, Christodoulidou and Brewer, 2012; Meuter et al., 2005). Thus, SST research has focused on the cognitive, decision-making processes leading to SST usage (Patsiotis et al., 2013). Customer decision-making regarding SSTs is determined by customer and SST process factors (Leung and Matanda, 2013). These factors range from user characteristics and attitudes (Elliot et al., 2013; Lee et al., 2010; Walker and Johnson, 2006; Meuter et al., 2005; Dabholkar and Bagozzi, 2002), customer demographics (Castillo-Manzano and Lopez-Valpuesta, 2013; Lee et al., 2010; Dean, 2008; Nilsson, 2007), technology attributes (Zhao and Dholakia, 2009; Meuter et al., 2005; Rogers, 2003) to situational factors (Collier, Moore, Horkey and Moore, 2015; Wang et al., 2012; Simon and Usunier, 2007; Dabholkar and Bagozzi, 2002). An extensive review of the SST customer adoption research is presented in Chapter Three.

The existing approach to customer SST adoption promotes the service provider manipulation of factors in order to instigate customer usage of SSTs, for example, by increasing customer trust (McKnight et al., 2002) or manipulating customer perceptions of ease of use (Zhao, Mattila and Tao, 2008). This represents a provider-dominant approach where the service provider designs the service process and the customer provides the specified inputs necessary for efficient delivery of the service (Heinonen et
This approach treats the customer as a passive recipient who reacts to service company communications, technology and process characteristics (Leung and Matanda, 2013). It has been criticised because it leads to an incomplete understanding of what the customer does with the service beyond the instructions specified by the service provider (Hilton et al., 2013; Heinonen et al., 2010).

Customer SST usage is not only a decision-making process of forming intentions to use SSTs, but also a process of service delivery and consumption where the customer has to undertake an active role (Hilton and Hughes, 2013; Baron et al., 2006). This active customer role is expressed in providing inputs towards the physical delivery of the service by operating the SST (Anitsal and Schumann, 2007). These customer inputs are integrated with the service provider’s inputs in a process of co-production of the core service offering (Hilton and Hughes, 2013). This formulation represents a co-production theoretical framework through which to explore customer usage of SSTs, which goes beyond the question of why a customer chooses to interact with SSTs (Hilton, 2008).

The theoretical framework proposed by Hilton et al. (2013) suggests that customers integrate physical, cognitive and relational resources in the co-production of the service which has an impact on the service value co-created.

Hilton (2008) recognises the domination of technology and innovation adoption theory in SST research as a weakness, which underestimates the service co-production nature of SST encounters. In their essence, SSTs consist of a technological aspect and a self-service aspect (Bobbitt and Dabholkar, 2001). Therefore, treating SST usage by customers as a purely technological adoption behaviour and omitting the self-service co-production element has been a limitation of SST research (Eastlick et al., 2012).
In addition to co-production of the service, SST customers also consume the service simultaneously. Co-production relates to the customer participation in the delivery of the service, but when customers consume the service they co-create value (Roberts, Hughes and Kertbo, 2013). During SST service, customers simultaneously co-produce the service and consume it (Hilton et al., 2013; Grönroos, 2008). Therefore, SST service is a co-production process during which companies provide resources (interface, customer support) and customers provide resources (skills, attitudes, experience) towards co-creation of value (Hilton and Hughes, 2013). There is a direct relationship between co-production and co-creation in SST service, where co-production affects the co-creation of value (Hilton et al., 2013). Therefore, the understanding of customer SST usage would necessitate the examination of how the service is co-produced and value is co-created or co-destroyed in SST service (Hilton et al., 2013). Service value co-creation is at the centre of the customer-centric, Service-Dominant (S-D) Logic of marketing (Vargo and Lusch, 2004) rendering this a useful theoretical framework which may open new avenues in the study of SST customer experiences (Barrutia and Gilsanz, 2013; Hilton, 2008). The application of S-D Logic to the research of customer SST usage is discussed in the following chapter.

2.7 Conclusion

This chapter provided an introduction to the role of ICTs in the tourism experience. There is an evident increase in the infiltration of ICTs in the tourism sector and their impact on the tourism experience (Neuhofer et al., 2014; Gretzel and Jamal, 2009). One of the significant consequences is the growing role of the customer in service delivery, which has been facilitated by SSTs (Castro et al., 2010). SSTs have enabled the customer to deliver services independently of company employees in a more timely,
economical and efficient manner (Meuter et al., 2000). However, despite the pronounced benefits for customers from SST usage, there are also drawbacks which discourage customer SST usage and hence reduce SST adoption (Meuter et al., 2000).

Successful SST implementation is reliant on customer adoption and usage of these technologies (Lee and Allaway, 2002). Therefore, SST research has been focused on understanding the customer decision-making processes leading to trial and acceptance of these technologies (see for example, Wang, 2012; Bitner et al., 2002). This stream of SST research has provided insights for SST providers into factors which they may manipulate towards ensuring higher adoption levels by customers (Patsiotis et al., 2013). Although SST adoption research has provided valuable insights into customer decision-making, it provides limited understanding of how customers co-produce the service (Hilton and Hughes, 2013). The understanding of customer SST co-production processes is equally important since customer co-production determines the quality of the service outcome (Bitner et al., 1997) and hence the evaluation of the service by the customer (Barrutia and Gilsanz, 2013). In its essence, SST service is a process of co-production between the customer and the service provider which results in co-creation of service value (Hilton et al., 2013).

Chapter Three examines existing theory relating to customer service co-production and the co-creation of service value, identifying key concepts in this area of research.
Chapter 3 The Customer SST Experience

3.1 Introduction

The previous chapter identified that SST research recognises customers’ active participation in SST service delivery (see for example, Meuter et al., 2005; Bitner et al., 2002), but how customers engage in service delivery has yet to be fully examined (Hilton et al., 2013; Hilton, 2008). During SST encounters, customers are active participants in the service delivery, and their inputs affect the service outcome (Klier, Klier, Muller and Rauch, 2015; Barrutia and Gilsanz, 2013). This active customer role in SSTs is not sufficiently addressed in SST adoption factor research which emphasises the active role of the service provider in managing customer decisions (Hilton and Hughes, 2013). Therefore, Hilton (2008) proposes the Service-Dominant (S-D) Logic in marketing (Vargo and Lusch, 2004) for its suitability to the study of customer usage of SSTs.

The S-D Logic is a marketing perspective conceptualising market exchange and economic value creation as a process of co-creation, initiated and evaluated by the customer (Barrutia and Gilsanz, 2013). From this perspective, customer usage of SSTs may be researched from the perspective of co-production (Mills and Morris, 1986) and co-creation (Prahalad and Ramaswamy, 2000) theories. From S-D Logic perspective and co-creation theory, Barrutia and Gilsanz (2013) have researched SST value co-creation as a product of customer quality perceptions regarding customer and service provider resources. Hilton et al., (2013) have applied co-production theory from an S-D
Logic perspective to SST encounters and uncovered the customer perspective on the resources that they integrate in SSTs. Even so, customer views on their role in co-producing in SSTs (Hilton, 2008), and the service situations leading to value-enhancing/-destroying experiences, require further study (Hilton et al., 2013).

The review of research literature on customer SST experiences in this chapter begins with a discussion of the relevant S-D Logic propositions and conceptualisations. From the perspective of the S-D Logic in marketing, the chapter reviews co-production and co-creation theory and adapts it to the context of SST usage. Literature pertaining to the adaptation of co-production and co-creation theory in an SST context is reviewed in the remainder of the chapter, including SST decision-making, customer service roles and concepts relating to the evaluation of SST experiences. The chapter concludes with an overview of the identified gaps in SST research.

3.2 SSTs from S-D Logic Perspective

The S-D Logic represents a pre-theoretical perspective of market exchange (Lusch and Vargo, 2011). Logic stands for the ‘individual and collective mind-set of scientists in a discipline’ (Vargo and Lusch, 2004, p. 2). The S-D Logic has been proposed by Vargo and Lusch (2004) and aims to represent a synthesised view of market exchange which has evolved over 50 years of marketing research. S-D Logic departs from the marketing view of operant and operand resources of market exchange (Campbell, O'Driscoll and Saren, 2012). Operand resources (raw materials, land) are those on which an operation or act is performed to produce effect, and operant resources (skills, knowledge) act on the operand resources (Campbell et al., 2012).
The main argument of the S-D Logic arises from contrasting it with what Vargo and Lusch call the ‘goods-dominant view’ or Goods-Dominant (G-D) Logic (2004, p.2). G-D Logic suggests that goods/operand resources are the primary unit of exchange in the market where producers determine and create the value offering while customers consume it (Vargo and Lusch, 2004). In contrast, the S-D Logic suggests that ‘service’ is the fundamental basis of exchange in the market which is transmitted via goods and services (Vargo and Lusch, 2008, p.6). This shift in perspective from operand resources as units of exchange to service as basis for market exchange has instigated a redefining of economic creation, presented in 10 fundamental premises (Vargo and Lusch, 2008). These premises define the roles and relations between customers, goods and producers in creating economic value in the market place (Campbell et al., 2012).

The first five fundamental premises (FP) of the S-D Logic (Vargo and Lusch, 2008, p.7) define market exchange as being service dominated (FP1 – ‘Service is the fundamental basis of exchange’) where the fundamental basis of exchange is indirect and complex (FP 2 – ‘Indirect exchange masks the fundamental basis of exchange’). Goods may be a mechanism for service provision (FP3 – ‘Goods are a distribution mechanism for service provision’), but the S-D Logic places primary importance on the operant resources (FP4 – ‘Operant resources are the source of competitive advantage’) and service as sources of economic growth (FP5 – ‘All economies are service economies’).

The remaining five FPs of the S-D Logic define service value in terms of how it is created and determined (Vargo and Lusch, 2008). Value is created through customer interactions in the consumption process (FP6 – ‘The customer is always a co-creator of value’) where the provider only makes value propositions (FP7 – ‘The enterprise cannot deliver value, but only offer value propositions’). The service-centred view of the S-D Logic is customer oriented and relational (FP8 – ‘A service-centred view is inherently...')
customer oriented and relational”), and customers and all other stakeholders integrate resources to co-create value (FP9 – ‘All social and economic actors are resource integrators’) which is determined by the beneficiary (FP10 – ‘Value is always uniquely and phenomenologically determined by the beneficiary’).

The S-D Logic has set a platform for discussion of marketing thought (Lusch et al., 2010) which has generated much debate and re-conceptualisation (see for example, Ramaswamy, 2011; Ballantyne and Varey, 2008; Gummesson, 2008). The S-D Logic is criticised by O’Shaughnessy and O’Shaughnessy (2009, p. 784) for being a ‘backward step’, not grounded in theory and of little value for service practitioners. In Lusch and Vargo’s (2011) response to this criticism, they highlight the large volume of studies in marketing which found the S-D Logic highly relevant and applicable. Although the S-D Logic concepts are undergoing constant re-definitions, they have succeeded in instigating debate and challenged marketing scholars to unite efforts towards developing a theoretical foundation of marketing (Grönroos and Gummerus, 2014).

Contributions of S-D Logic include the foregrounding of customers as operant resources who co-create value with the provider, and also the recognition that the customer/beneficiary subjectively determines the value in the service (Hilton et al., 2013; Helkkula and Kelleher, 2010). This formulation represents a shift in power relations between producers and consumers because the producer is not the only economic actor who may embed and determine the value in products (Vargo and Lusch, 2004). Therefore, the S-D Logic leverages the role of the consumer to be equal to that of the producer in terms of value creation in the economy (Vargo and Lusch, 2008). The S-D Logic claims to be customer-centric because providers can only create service offers, but the customer is the one who ultimately determines the value that they have derived
from using them (Vargo and Lusch, 2008). This aspect of S-D Logic draws on Consumer Culture Theory (Arnould and Thompson, 2005) which emphasises the experiential aspects of consumption (Arnould, 2006). Therefore, customer-centricity shifts the focus from measuring rational service outcomes, such as satisfaction and quality, to customer meanings, identities, symbols and emotions during consumption (see for example, Helkkula and Kelleher, 2010; Ruth, Brunel and Otens, 2004). Customer identities, including aspects such as social class, gender, profession, have been found to relate to customer buying preferences, behaviours and experiences (Champniss, Wilson and Macdonald, 2015).

The S-D Logic recognises the role of the customer which has evolved from a passive consumer of value to an active value co-creator (Lusch et al., 2010). Customers are always co-creators of value because value is realised only in the process of consumption of the service offering by the customer (Vargo and Lusch, 2008). Co-creation relates to the stage of consumption of the service by the customer (Roberts et al., 2013). For example, a car manufacturer transfers knowledge and expertise (operant resource) in providing a means of transport (service) via the produced car (operand resource). After this transfer, the customer becomes responsible for service and maintenance of the car; thus, applying customer operant resources in co-creating the service experience (Vargo and Lusch, 2004). Grönroos and Gummerus (2014) criticise the concept of co-creation of value as too abstract and metaphorical. They suggest the distinction of co-creation of value from the concept of customer value creation. Co-creation involves an interactive process between a service provider, for example, and a customer, while customer value creation takes place in the customer sphere and is out of the service provider’s sphere of influence (Grönroos and Gummerus, 2014, p.210):
Value co-creation is a joint process that takes place on a co-creation platform involving, for example, a service provider and a customer, where the service provider’s service (production) process and the customer’s consumption and value creation process merge into one process of direct interactions.

In addition to the role of a co-creator, the customer may also become a co-producer when engaging in the process of delivering the core service offering (Vargo and Lusch, 2008). In the context of products/goods, the stages of production and consumption are clearly defined and sequential (Jimenez, Voss and Frankwick, 2013). In contrast, in the context of services, the production and consumption stage may often take place simultaneously (Grönroos, 2008). This is the reason for the confusion in terms when it comes to services (Grönroos, 2008). Even so, the distinction needs to be made because co-production relates to the activities necessary for the delivery of the service offering, while value co-creation and value creation is associated with the subjective, customer value generated from consuming the service offering (Grönroos and Gummerus, 2014; Roberts et al., 2013; Etgar, 2008).

With the rise of new communication technologies and the increasing democratisation of service production, customer-centricity becomes even more urgent (McColl-Kennedy et al., 2012; Heinonen et al., 2010). In fact, Grönroos and Gummerus (2014) and Heinonen et al. (2010) suggest that the S-D Logic does not sufficiently explicate the customer-centric approach in the concepts of value and co-creation. The abstract nature of the S-D Logic provides for misinterpretations and G-D Logic nuances (Grönroos and Gummerus, 2014). A true customer-centric marketing logic should clearly highlight that it is not the company that involves the customer in service production activities, but rather the company gets involved with service provision in the life of the customer (Heinonen et al., 2010).
Later developments in the S-D Logic discussion criticise the conceptualisation of value creation as a customer-provider dyad, and propose a dynamic value network consisting of various stakeholders who engage in service-for-service exchanges (see for example, Grönroos and Gummerus, 2014; Vargo and Lusch, 2011; Lusch et al., 2010). Ballantyne and Varey (2008) suggest that value is not created only between customer-provider, but also between other co-creation groups such as customer-customer and provider-provider. Thus, all economic actors are leveraged and equalled in power in terms of value creation.

Based on the S-D Logic, Edvardsson et al. (2011, p.542) define a service value system as ‘a configuration of both customer and provider resources that enable, support and guide value co-creation, resulting in a customer experience’. Thus, the S-D Logic expands the roles of customers, providers and intermediaries and emphasises the relationships and communications between them (Ballantyne and Varey, 2008). This perspective suggests that it is more accurate to conceptualise all stakeholders in the value network as ‘actors’ rather than assigning them ‘provider’ and ‘consumer’ labels (Grönroos and Gummerus, 2014). The value network perspective does not clarify who determines the structure of the network and who is at the centre of the operation, which may be an avenue for further research (Lusch et al., 2010).

The infiltration of technology in the services sector has further facilitated increased customer co-production (Hilton and Hughes, 2013; Meuter et al., 2000). Unlike other services, such as getting a hair cut in the hairdresser’s or car repair in a garage, where the customer is a co-creator of the experience without being a co-producer, in SST service, the customer is always a co-producer (Hilton and Hughes, 2013; Hilton, 2008). This perspective is clearly evident in SSTs, where the provider has embedded skills and
knowledge in providing an SST, but the customer ‘operates’ it during a co-production process by applying customer skills and knowledge (Hilton and Hughes, 2013). During the SST service co-production process, the customer simultaneously consumes the service; hence, co-creation of value also takes place (Grönroos and Gummerus, 2014; Hilton et al., 2013). When the service co-production is completed, the co-creation of value continues by engaging in activities which re-visit the value in the experience originally determined (Helkkula and Kelleher, 2010). Value determination is discussed further in Section 3.5 in terms of evaluation of experiences.

The customer involvement in co-production may influence the co-creation of value in SSTs in a positive as well as negative way (Hilton et al., 2013; Hilton, 2008). The concept of value co-creation in S-D Logic suggests that value may not always be created for the customer in service, as SSTs may either enhance or destroy value for the customer (Hilton et al., 2013). Furthermore, Helkkula and Kelleher (2010) found that, from a customer perspective, both positive and negative value may be co-created in service. Therefore, how customers get involved in SST co-production is of primary importance for the co-creation of value enhancing SST experiences (Hilton et al., 2013).

Although S-D Logic broadly defines co-creation and co-production, it provides limited theoretical knowledge on the processes of co-production (Etgar, 2008; Xie, Bagozzi and Troye, 2008) and co-creation (McColl-Kennedy et al., 2012; Payne et al., 2008). Payne et al. (2008) propose that co-creation of value is conceptualised as a non-linear, interactive process model consisting of customer, service-provider and encounter processes. In the process of co-creating the service experience value, customers are individuals who ‘think’ (cognitive element), ‘feel’ (emotive element) and ‘do’ (behavioural element) (Payne et al., 2008). These elements represent customer
resources which are integrated with service provider resources (experience planning and
design, for example) through relational exchange (Payne et al., 2008). The co-creation
process model of Payne et al. (2008) has found application in conceptualising
technology-enabled tourism experiences (Neuhofer et al., 2013) and customer co-
creation styles (McColl-Kennedy et al., 2012).

Payne et al. (2008) state that they do not differentiate between co-creation and co-
production in their proposed model of co-creation. Since the SST service is based on co-
production, models of co-production would also have to be considered. There are a
number of proposed customer co-production models in the service management
literature (see for example, Guo et al., 2013; Etgar, 2008; Mills and Morris, 1986)
which are discussed in the following section. These models provide the theoretical
framework for understanding SST customer co-production and its relationship with co-
creation of value.

3.3 The Customer Service Co-production Process

The notion that customers represent a production resource for the company (Lovelock
and Young, 1979) has given rise to the idea of conceptualising customers as ‘partial
employees’ who have to be managed by the service company similarly to employees
(Mills and Morris, 1986). Mills and Morris (1986) present a succession of Customer
Participation Phases whereby customers gradually assume this role (see Figure 3.1).
The first phase, or pre-encounter stage, is the time when consumer role readiness is formed (Bowen, 1986). Customers bring some level of preparedness for co-production, already formed by consulting sources such as media, peers, family, education and previous experience with similar services (Mills and Morris, 1986). A central concept here is the role-readiness which encompasses the level of knowledge about the service role combined with the abilities, skills and predispositions needed to effectively perform it (Mills and Morris, 1986).

At the next stage of pre-encounter socialisation, customer role-readiness is enriched by the company with communications about the specific requirements of the customer production role (Mills and Morris, 1986). Customers, similarly to employees, are
introduced to their production role by the service provider through the process of
customer socialisation, which draws on similar practices such as employee
organisational socialisation (Kelley, Donnelly and Skinner, 1990; Goodwin, 1988; Mills
and Morris, 1986). Customer socialisation includes the acquiring of abilities, values and
self-perception needed to perform as a ‘partial employee’ (Goodwin, 1988).

There are a number of tested methods for customer socialisation, including distributing
of company marketing literature, incorporating cues into the service environment,
formal customer introduction to the organisation, reinforcement of desired behaviour,
and observation of other customers (Kelley et al., 1990). Cues in the design of the
service environment can be utilised by companies to indirectly manage customers’
participation (Ford and Bowen, 2003). Unlike employees, the approach to customer
training and socialisation needs to be indirect (Goodwin, 1988) and often companies
have very limited time (Ford and Bowen, 2003). Particularly for service relationships
with low commitment, companies have practically no time for training customers, and
customers have little motivation to learn (Goodwin, 1988). Another challenge to
customer socialisation is the transferring of learned analogous participatory roles
(Goodwin, 1988). Those customers may even resist socialisation attempts and indeed
the marketer may have to adapt to customer expectations (Goodwin, 1988).

Following the pre-encounter stage, the customer proceeds to the initial encounter which
starts at the moment the customer contacts the service company (Mills and Morris,
1986). The role readiness discussed above can seriously influence the quality of this
initial encounter (Mills and Morris, 1986). Low levels of role-readiness can increase the
cost of the provided service by extending the process of role negotiation and
acquisition, coupled with more stress for the organisational employees and the
customers (Mills and Morris, 1986). During the role negotiation process, the company defines the customer participation boundaries because not all processes are suitable for customer participation (Mills and Morris, 1986). For example, giving too much performance latitude to customers who do not have the required skills (for instance encouraging customers to participate in restaurant meal preparation) can lead to poor service (Mills and Morris, 1986).

After the service production process is completed, customers exit the service system, but ideally remain attached to the company and return for future service encounters (Mills and Morris, 1986). This exiting is termed ‘decoupling’ and it may be a challenging and sensitive stage for companies to manage because both parties may not have the same perception of when the service has been completed (Mills and Morris, 1986). The outcomes from customer participation would feedback into the consumer role-readiness for future participation in service production (Mills and Morris, 1986).

The Mills and Morris (1986) model presents customer participation as phases, which the company needs to manage. In contrast, the treatment of customers as a resource, fully managed by the company, has been criticised by Prahalad and Ramaswamy (2003) as counter-productive in creating personalised, superior customer experiences. Furthermore, co-production depends on customer decisions as to whether and how they will choose to get involved in co-production (Etgar, 2008). Conceptualising co-production as a customer decision-making process has been suggested by Etgar (2008). This process consists of three main stages, that of decision-making, activation and evaluation of the experience (Etgar, 2008).

The customer decision-making process begins with preconditions (such as cultural, technological, situational, consumer and product-related traits) and motivational drivers
(be they cost, control, reduction of service risk, customisation, psychological or social benefits) which need to be present for the customer to perform a cost-benefit analysis (Etgar, 2008). The customer co-production desires may also be linked to customer imagery, feeling and emotion (Payne et al., 2008). Bharti, Agrawal and Sharma (2014) present the factors affecting customer decisions to participate in product development in two groups, dispositional and situational. The dispositional factors include the customer skills (role clarity, experience, knowledge and ability), perceptions (mood) and motivation to contribute (intensity of need, recognition) together with the quality and commitment of their relationship with the service company (Bharti et al., 2014). The ease, location and time associated with participation in product development may represent situational factors (Bharti et al., 2014). The situational factors may also include social, community and cultural norms of conduct, communication and interaction (Bharti et al., 2014).

The cost-benefit analysis is an evaluation from the customer perspective of the potential cost associated with undertaking a role in co-production against the expected benefits (Etgar, 2008; Anitsal and Schumann, 2007). In an SST context, Anitsal and Schumann (2007) present the customer cost-benefit analysis as a process of evaluation of the required quality and quantity of customer labour against the service outputs that the customer will receive. The final result from the evaluation will be processed through the prism of customer perceptions of fairness in relation to the input-output ratio (Anitsal and Schumann, 2007).

After concluding the cost-benefit analysis, the customer reaches the stage of activation when the customer engages in co-production activities of their choice (Etgar, 2008). The understanding of the customer cost-benefit analysis before activation is essential.
because it determines how and what production activities the customer will choose to engage in (Etgar, 2008). In the second stage of activation, customers undertake service roles including that of partial employee (Mills and Morris, 1986), co-producer (Hilton et al., 2013) and value co-creator (Vargo and Lusch, 2008). The third stage of evaluation comprises of customer perceptions of satisfaction with the service (Meuter et al., 2000), quality (Barrutia and Gilsanz, 2013) and fairness (Anitsal and Schumann, 2007) which interact to form the customer perceptions of service value (Baruttia and Gilsanz, 2013). The co-production process concludes with an evaluation of the co-production experience (Etgar, 2008).

A three-staged conceptualisation of the co-production process is also employed in Guo et al. (2013) with stages of organisational socialisation processes, co-production behaviours and co-production outcomes. Guo et al. (2013) empirically test how three types of socialisation processes (that of role clarity, task mastery and goal congruence) impact three types of co-production behaviours (compliance, individual initiative and civic virtue) which in turn influence two co-production outcomes (satisfaction and well-being). The results show that different socialisation processes impact different co-production behaviours and outcomes (Guo et al., 2013). These findings suggest that co-production should not be regarded as a uniform process (see for example, Buttgen, Schumann, and Ates, 2012), but a multi-dimensional one, where each dimension is influenced by different socialisation processes and produces different outcomes (Guo et al., 2013). These findings support the proposition of Etgar (2008) that the differences in the decision-making stage would impact the choice of co-production activities that customers would engage in.
In summary, co-production has been conceptualised as a three-stage process of decision-making/pre-encounter stage, activation/role adoption, and consumption and evaluation of the experience (Guo et al., 2013; Etgar, 2008; Mills and Morris, 1986). As identified in Chapter Two, SST research has focused predominantly on understanding the decision-making stage. The literature review continues with a discussion of literature relevant to each of these three stages of SST co-production.

3.4 Decision-Making Stage

The decision-making processes behind human behaviour have been of research interest in psychology and the social sciences and have resulted in a number of motivational theories (Solomon, Bamossy, Askegaard and Hogg, 2013). This section will commence with a review of major motivational theories applicable to the decision-making stage of SST co-production, such as human needs theories (see for example, Ryan and Deci, 2000; Maslow, 1987), Expectancy Theory (Vroom, 1964) and Theory of Reasoned Action (Fishbein and Ajzen, 1975). Customer SST research has been predominantly based on the theoretical foundations of the Technology Acceptance Model (Davis et al., 1989), which is an adaptation of the Theory of Reasoned Action within a context of information systems usage (Patsiotis et al., 2013). Another influential theory is the Diffusion of Innovations Theory (Rogers, 1995) and specifically the aspect of consumer adoption of innovations (see for example, Meuter et al., 2005). Based on these theories, customer usage of SSTs has been studied as a process managed by the service company through the manipulation of various factors including trust, risk, consumer readiness and technology anxiety (Patsiotis et al., 2013; Eastlick et al., 2012). The major factors influencing SST adoption, as identified in the literature, are outlined later in this section.
3.4.1 Motivational Theories and SST Research

Customer decision-making in relation to SSTs has been of research interest because of the importance of customer participation for the effective implementation of these technologies (Patsiotis et al., 2013). There are a number of motivational theories which explain human behaviour as driven by biological and psychological needs (see for example, Maslow’s hierarchy of needs), outcome expectations (Expectancy theory of Vroom, 1964) and values (Gutman, 1982). The foundational theory of human needs was proposed by Maslow in 1943 in the introduction of the hierarchy of human needs (Maslow, 1987). Based on the notion that human behaviour is motivated by biological and psychological needs, a number of later theories were introduced, such as Alderfer’s ERG theory (1969), Herzberg’s Motivation-hygiene theory (1966) and Deci and Ryan’s Self-Determination Theory (1985). The application of human needs theories in SST research is limited, but has been suggested as a promising avenue for further research and hence is reviewed in this section (Leung and Matanda, 2013; Wünderlich et al., 2013).

Human behaviour has been explained based on the cognitive drive of expectations; that is, the expectation that a certain action will generate a desired outcome (Vroom, 1964). This notion is the basis of the Expectancy-Valence Theory (Vroom, 1964) and other generative theories such as Means-end Chain Model (Gutman, 1982), the Theory of Reasoned Action (Fishbein and Ajzen, 1975) and the Technology Acceptance Model (Davis et al., 1989). The Technology Acceptance Model (TAM) is one of the most widely applied theories in the study of customer SST adoption behaviour (Patsiotis et al., 2013). In addition to human needs and expectancy of outcome theories, SST research has also drawn on the Diffusion of Innovations Theory (Davis, 1995) and conceptualised SST adoption as a staged process (Bitner et al., 2002). This section
begins with a discussion of the application of motivational theories based on human physiological and psychological needs to SST research, followed by the theories based on expectations for an achievement of a desired outcome and diffusion of innovations.

**3.4.1.1 Human Needs Theories**

SST usage may be researched as behaviour driven by the necessity to satisfy human needs (Leung and Matanda, 2013). Human needs and the unpleasant state of arousal which occurs when they are not met can motivate behaviour (Maslow, 1987). When people are in this state of imbalance, they engage in goal-oriented behaviours which satisfy needs and return the balance (Solomon et al., 2013). Human needs may be satisfied directly or through the achievement of an outcome which indirectly satisfies the need (Ryan and Deci, 2000). Therefore, if an action directly satisfies a need, it will be performed more willingly by an individual than if it leads to an external outcome which only partly satisfies the need (Deci and Ryan, 2012). This statement forms the basis of the self-determination theory of human needs (Deci and Ryan, 2012). This theory is applicable to SST adoption research because the effective adoption of SSTs by customers is dependent on the customers’ willing engagement (Leung and Matanda, 2013).

Self-determination theory (SDT) is based on the proposition that all human beings have basic psychological needs to feel competent in their context, to be related to others and to be autonomous in the determination of their own behaviour and life (Deci and Ryan, 2012). The satisfaction of these needs represents the internal motivation of people to act (Ryan and Deci, 2000). Furthermore, these needs have to be satisfied within various social contexts, be they proximal (for instance family and friends) or distal (such as cultural and economic values) (Deci and Ryan, 2012). These contexts affect whether the
basic human needs are satisfied directly or by an achievement of a separate outcome (Deci and Ryan, 2012).

The satisfaction of basic human needs determines the internal motivation which is also characterised by strength (Ryan and Deci, 2000). The strength of motivation is influenced by the individual’s evaluation of internal and external stimuli which lead to goal formulation and action (Bagozzi and Dholakia, 1999). The orientation of motivation is defined as intrinsic and extrinsic, representing the goal of an action and its locus of control (Deci, Eghrari, Partick and Leone, 1994). Intrinsic motivation has internal causality; for instance, the individual feels like the agent of their actions, and it triggers activities which are pursued because they are inherently interesting or enjoyable (Ryan and Deci, 2000). Extrinsic motivation refers to the undertaking of an activity because it will lead to the attainment of a separable outcome/goal; thus, the activity is only instrumental (Ryan and Deci, 2000). Intrinsically motivated activities have been proven to result in better performance and experience for the individual (Deci and Ryan, 2012; Ryan and Deci, 2000). Since SSTs rely on customer willingness and quality of inputs during co-producing of the service, the SDT suggestion that internalising motivation will lead to better performance and experience of an activity has been rendered as applicable to SST adoption research (see for example, Leung and Matanda, 2013; Wünderlich et al., 2013).

SDT represents intrinsic and extrinsic motivation on a continuum depending on the level of internalisation of the locus of control of the behaviour (Deci et al., 1994). Fully externally motivated behaviour is orientated towards the achievement of externally imposed rewards and it is discontinued when the reward is withdrawn (Deci et al., 1994). Through the process of introjection, external goals are somewhat internalised and
the behaviour is enacted under the internal regulatory mechanisms of guilt or promised self-approval (Deci et al., 1994). For example, a child may do their homework because if they do not, they would disappoint their parents (Ryan and Deci, 2000). These forms of extrinsic motivation are very similar to intrinsic motivation, but they are still extrinsic because the activity has an instrumental meaning towards achieving of a separate outcome (Ryan and Deci, 2000). The impact of internal/external motivation on the customer decision to try SSTs has been explored by Meuter et al. (2005). Their findings suggest that external motivation, such as control, convenience and savings, has a stronger influence on the decision to try SSTs than internal motivation, such as independence and enjoyment (Meuter et al., 2005). Even so, Meuter et al. (2005) do not consider the locus of control of the external motivations, which may determine more clearly the extent to which the external motivations may approximate to the internal end of the internal/external continuum (Leung and Matanda, 2013).

The goals which people pursue can also be classified as intrinsic when they directly satisfy a basic human need or extrinsic when they are not as effective in achieving the same level of psychological wellbeing (Deci and Ryan, 2012). Extrinsic life goals represent becoming rich and famous and maintaining a positive social image, while intrinsic life goals may represent personal growth, contributing to the community, being healthy and developing meaningful relationships (Deci and Ryan, 2012). Goal-driven behaviour is the focus of expectancy theories of human behaviour, discussed in Section 3.4.1.2.

Although the SDT needs of relatedness/anonymity, competency and autonomy have been confirmed to drive SST usage decisions (see for example, Leung and Matanda, 2013; Oh et al., 2013), other human needs, such as trust and need for novelty, may also
be applicable (Leung and Matanda, 2013). Human needs have been classified by Maslow (1987) into a five level hierarchy pyramid where the bottom level represents the physiological human needs of food, water and sleep. The upper levels include the needs for safety (security and shelter), belongingness (love, friendship and acceptance), ego needs (accomplishment and status) and self-actualisation (self-fulfilment and enriching experiences) (Maslow, 1987). The needs from the lower level have to be fulfilled before the needs from the higher levels may arise (Maslow, 1987).

The value of Maslow’s hierarchy is in the concept of levels of needs but the accuracy of its levelling has been criticised (Solomon et al., 2013). For example, in some Asian cultures, the need for belongingness may be placed before the needs of the ego, or in some cases, people may be more motivated by their spiritual survival than their biological survival (Solomon et al., 2013). Alderfer (1969) proposed an alternative needs theory of need-satisfaction and strength of desires. This alternative theory is based on a three-fold conceptualisation of human needs: existence, relatedness, and growth (ERG). The ERG theory does not assume lower-level satisfaction as a prerequisite for the emergence of higher-order needs, but it suggests the impact of higher-order frustration to the strength of lower-order needs (Alderfer, 1969). Although human needs theories offer potential for SST research, much of the existing SST research is based on expectancy theories of human behaviour, discussed in the following section.

3.4.1.2 Expectancy Theories

While the theories of Maslow, Alderfer and SDT explain human behaviour using biological and psychological drivers, a strand of motivational theory focuses on the cognitive drive of expectations (Solomon et al., 2013). The expectancy theory of Vroom
Expectancy theories explain behaviours which are purposeful and goal orientated (Steers et al., 2004), and consist of three elements: expectancy, instrumentality and valence (Vroom, 1964). Expectancy relates to the belief that a person is able to achieve a desired goal; instrumentality represents the belief that undertaking action will lead to attainment of the goal; and valence represents the value of achieving the goal (Vroom, 1964). The Expectancy-Valence Theory has been applied successfully in an SST context by Meuter et al. (2005). The justification for employing this motivational theory is that for customers to form the intention to try the SST mode of service, they would need to have expectations that it will excel the service mode they have previously been using in fulfilling their consumption goals (Meuter et al., 2005). A large stream of SST research is based on exploring customer attitudes towards SST usage which are based on beliefs that SST usage will lead to a desired outcome (Eastlick et al., 2012). The power of attitudes to predict human behaviour is the focus of the Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975). Elements of TRA have been applied to SST context because it has been confirmed as suitable to predict specific behaviours (see for example, Curran and Meuter, 2007; Dabholkar and Bobbitt, 2001). SST research has also applied a derivative and adaptation of the TRA to technology acceptance, known as the Technology Acceptance Model (Davis et al., 1989), reviewed in the following section.

3.4.1.2.1 Technology Acceptance Model

Since SSTs are technological interfaces, a large stream of SST customer behaviour research has been based on the Technology Acceptance Model (TAM) (Davis et al.,
1989) which predicts customer acceptance of new technology systems (see for example, Hsiao and Tang, 2015; Yang, Lee, Park and Lee, 2014; Lin and Chang, 2011; Gefen et al., 2003). Although the TAM model proved to be a good, basic theoretical foundation to research customer intentions to use SSTs, it requires adaptation to suit the SST context (see for example, Eastlick et al., 2012; Dabholkar and Bagozzi, 2002; Gefen et al., 2003).

Davis et al. (1989) developed TAM (illustrated in Figure 3.2 below) on the basis of the TRA by Fishbein and Ajzen (1975). TAM suggests that the extent to which a consumer believes a technology is useful and easy to use would form the attitude towards that information system and the behavioural intention to use it (Davis et al., 1989). Davis (1989) justifies the choice of perceived ease of use and perceived usefulness as key determinants of technology adoption behaviour based on a literature review of multiple disciplines underpinning innovation adoption research. Perceived ease of use is introduced in the information systems literature by Davis (1989, p.320) and defined as ‘the degree to which a person believes that using a particular system would be free of effort’. Perceived usefulness is defined as ‘the degree to which a person believes that using a particular system would enhance his or her job performance’ (Davis, 1989, p.320). Factors such as technology characteristics, consumer demographics and psychographics are external variables which affect behavioural intentions only through the mediating variables of perceived usefulness and perceived ease of use (Davis et al., 1989).
Figure 3.2 Technology Acceptance Model (TAM)


Davis et al. (1989) tested TAM in a university setting among 107 first year MBA students in the University of Michigan. The students were introduced for an hour to a word processing programme and then asked to complete a questionnaire. The same group of students was surveyed 14 weeks later at the end of the semester. The findings from the analysis confirmed that perceived usefulness, perceived ease of use and behavioural intentions are the three variables which can predict acceptance of new technologies (Davis et al., 1989). Certain changes were observed in the relationships between the variables in the initial introduction to the new technology and in the period of actual use (Davis et al., 1989). The importance of perceived ease of use lessened while perceived usefulness became the main determinant of usage. Although the TAM model was originally developed in the USA, it has proven to hold well in other countries (Madhurima and Lomo-David, 2014).

SST research based on TAM has provided valuable insights in understanding customer SST adoption (Lin and Chang, 2011). Even so, TAM has undergone adaptations to the SST context which has led to additions to the core theory concepts, such as the inclusion of trust (Madhurima and Lomo-David, 2014; Gefen et al., 2003).
(Dabholkar and Bagozzi, 2002), self-efficacy (Hsiao and Tang, 2015), attitude towards co-production (Eastlick et al., 2013) and need for interaction (Oh et al., 2013). For example, Dabholkar and Bagozzi (2002) substitute the TAM variable of usefulness with performance as more accurately reflecting the SST context where the technology element is maintained by the service provider. Dabholkar and Bagozzi (2002) confirm that there are three, not two, belief variables which determine the attitude and usage intentions of retail self-service check-outs, that of ease of use, performance and fun.

Perceived ease of use and perceived usefulness are both significantly related to online shopping usage, alongside trust in Gefen et al. (2003). A study by Oh et al. (2013) provides an empirical basis to support the premise that the two variables which relate to predicting SST usage intentions are perceived usefulness and need for interaction. Customers who had high need for interaction are less likely to use SSTs in a holiday resort because the SST transaction does not satisfy their emotional need for social contact with the staff, according to Oh et al., 2013. In the original TAM, the attitude towards the technology predicts the intentions to use it. In an SST context, the attitude towards the SST has been proven to be significantly related to SST usage (Curran and Meuter, 2007), but Eastlick et al. (2012) also confirm that the intention to use SSTs is predicted by the attitude towards co-producing the service. The importance of researching attitudes other than just the attitude towards the SST is highlighted in the multi-attitude conceptual SST adoption model proposed by Bobbitt and Dabholkar (2001), where attitude towards using self-service options is included as a variable. This limitation of the TAM arises from the fact that it was designed to predict technology usage, while SSTs also involve active customer co-production of a service with the service provider (Eastlick et al., 2012; Meuter et al., 2005).
The original TAM does not include all aspects of TRA which has been recognised as a shortcoming of the model (Venkatesh, Morris, Davis and Davis, 2003). TRA suggests that there are situational influences on the link between behavioural intentions and actual behaviour (Fishbein and Ajzen, 1975). The original TAM does not account for such situational influences, but SST adoption research has confirmed the significant mediating effects of situational factors (see for example, Collier et al., 2015; Yang et al., 2014; Wang et al., 2012; Dabholkar and Bagozzi, 2002). Dabholkar and Bagozzi (2002) confirm the moderating effect of perceived waiting time on the link between attitude towards using SST and intentions. Wang et al. (2012) add further situational influences, such as length of the queue at the personal check-out compared to the self-service check-out, perceived task complexity and other accompanying customers. Yang et al. (2014) also find that SST adoption is mediated by the availability of the service in another service channel, for instance if customers have already used the service in another service channel of the company, then trust is not as essential as for radically new services. In Kinard et al. (2009) crowdedness of the store (that is, presence of other customers) is of importance only for novelty customers and its influence on SST usage diminishes with increased familiarity. Furthermore, employee presence, location convenience, tolerance to wait and order size display significant influences on customer attitude towards using an SST (Collier et al., 2015). It appears that customer attitudes towards SSTs are not stable and are affected by the specific service context and the situation when the service is delivered (Collier et al., 2015).

Even though TAM has been applied successfully to SST research, the scope of the findings is delimited by the general limitations of TRA as its foundation. Firstly, TRA claims that there is a strong correlation between intentions and actual behaviour provided that the behaviour is within the actor’s control and the measurement of
intentions is as close as possible to the execution of the actual behaviour (Azjen, 1988). Therefore, if the behaviour requires skills, assistance from others, resources or overcoming of environmental obstacles, then the predictive power of TRA may be limited (Sheppard, Hartwick and Warshaw, 1988). Secondly, TRA aims at predicting behaviours, but not the attainment of the goals which this behaviour is supposed to achieve (Sheppard et al., 1988). For example, TRA may predict that a customer will buy diet pills, but it may not predict if they will lose weight which is the goal of the behaviour (Sheppard et al., 1988). Customer goals and values are the focus of the Means-End Chain Model (Gutman, 1982) which has found limited application in SST research, but may provide a suitable framework for understanding the customer perspective on their motivation (Tussyadiah, 2014) and is presented in the following section.

### 3.4.1.2.2 Means-End Chain Model

Another expectancy theory which has been found to be applicable to understanding customer motivation to use SSTs is the Means-End Chain Model (Cetto et al., 2015; Tussyadiah, 2014). Gutman (1982) introduced the Means-End Chain Model which links personal values to consumer product attributes. Customer behaviour may also be pulled by value-oriented goals (Solomon et al., 2013). Values are enduring beliefs that a certain mode of existence is socially or personally desirable (Gutman, 1982) and are instilled by society, and are culturally laden (Solomon et al., 2013). Therefore, value-driven behaviour will aim at achieving a goal relating to a value, such as healthy lifestyle, world peace and wellbeing, or religion. Hence, customers may have preferences for certain product attributes because they view them as instrumental in attaining a desired outcome (benefit) relating to a personal value (Gutman, 1982). For example, a customer may drink a low alcohol beer at a party because they do not want
to get drunk, but they do not want to get drunk because they would like to have a meaningful conversation with others and cultivate a sense of belonging (Reynolds and Gutman, 1988). Through the process of ladder ing from the product attribute to the end value, it becomes evident that the product characteristic of low alcohol content is the ‘means’ to achieve a desired state of belonging which is the ‘end’ (Reynolds and Gutman, 1988).

Values have been classified as terminal values, which represent desired end-states of existence (happiness, accomplishment), and instrumental values, which are modes of behaviour (honest, good-mannered) that serve to achieve the terminal values (Gutman, 1982). Consumption values have been identified as efficiency, excellence, status, self-esteem, play, aesthetics, ethics and spirituality (Holbrook, 1999). A trend in tourism consumption has been the desire for ethical consumption, which is a value motivating customers to choose environmentally friendly products and experiences (Cohen, Prayag and Moital, 2013).

Bagozzi and Dholakia (1999) highlight the limitations of expectancy theory and the Means-End Chain Model in that they fail to link the values to the instigation of behaviour. Therefore, a model of goal setting and implementation is introduced by Bagozzi and Dholakia (1999) consisting of five stages. The first two stages represent the goal setting and formation of intentions to act towards achieving the goal, followed by action planning, action initiation and goal attainment/failure (Bagozzi and Dholakia, 1999). The Bagozzi and Dholakia (1999) model improves upon the Means-End Chain Model by diagnosing which values lead to the formulation of goal-oriented actions rather than just linking these values to product attributes. Furthermore, expectancy theory fails to account for contingencies leading to an action as well as the prioritisation
of goals (Bagozzi and Dholakia, 1999). For example, a customer may have as a goal to go on a holiday. They may have the money and time to do so (expectancy), attractive holiday packages may be on offer (instrumentality), they may value the experience they will obtain (valence), but they may not instigate action towards purchasing a vacation because they are saving money for a new home (Bagozzi and Dholakia, 1999).

The discussion on customer SST usage motivation in this section identifies that behavioural intention to use SSTs may be predicted by customer beliefs, attitudes, needs and values. Furthermore, SST adoption may be researched as an innovation adoption behaviour undergoing a number of stages from awareness to commitment (Bitner et al., 2002). SST research based on the Diffusion of Innovations Theory is discussed in the following section.

3.4.1.3 Diffusion of Innovations Theory

The introduction of a new SST represents a technological, service innovation (Bitner et al., 2002). Therefore, the Diffusion of Innovations Theory (DOI) (Rogers, 2003) has been suggested by Meuter et al. (2005) and Bitner et al. (2002) as a suitable theoretical foundation to study SST adoption. DOI was first introduced in 1962 in the context of agricultural and health innovations diffusion (Rogers, 2003). The DOI theory deals with the dissemination of innovations in society and the process of adoption by individual consumers (Rogers, 2003). DOI suggests that individuals adopt innovations following a five-stage rational decision-making model, from knowledge, persuasion and decision to implementation and confirmation (Rogers, 2003). In the first stage, individuals become aware of the existence of an innovation; they may then develop an interest and seek further information about it which may result in a decision to implement it (Rogers,
Following the implementation stage, the individual confirms their decision to continue using the innovation (Rogers, 2003).

The decision of individuals to adopt an innovation is determined by their personal characteristics together with the innovation characteristics (Montoya-Weiss et al., 2003). The personal characteristics include a socio-demographic element, that is, people more likely to be amongst the first to adopt an innovation are also more likely to be better educated, wealthier and of higher social standing (Rogers, 2003). The personality traits of these people include intelligence, ambition, ability to deal with concepts, and less dogmatism and fatalism (Rogers, 2003). The innovation characteristics which DOI proposes include relative advantage (the degree to which an innovation is perceived as better than its predecessor), compatibility with the consumers lifestyle and beliefs, triability before implementation, observability (the outcomes from implementation are easily observable), complexity (how easy is the innovation to use) and perceived risk of using the innovation (Rogers, 2003).

The DOI has received some criticism because it is regarded as too generalisable and simplifies the complex structures of the innovation diffusion process (Lyytinen and Damsgaard, 2001). For example, large-scale, complex and networked technological innovations may follow more complicated adoption paths where realignment of strategic structures and resources may follow alongside networked collaboration (Lyytinen and Damsgaard, 2001). Furthermore, innovation and personal characteristics may not be the only groups of factors affecting innovation adoption, but they may be complemented by political interests and social learning factors (Cooper and Zmud, 1990). This is particularly true for organisational adoption of technological innovation after the initial trial and towards the blending of the technology in the organisation.
(Cooper and Zmud, 1990). Lyytinen and Damsgaard (2001) also question the applicability of the innovation characteristics for all innovation diffusion contexts. Despite the criticism, the DOI theory has informed much of the SST adoption research and has proven to be effective (see for example, Eastlick et al., 2012; Meuter et al., 2005; Bitner et al., 2002).

DOI-based research presents SST adoption as a process of innovation adoption phases which may be affected by different customer and SST characteristics (Wang, 2012). An early conceptualisation model of customer adoption of SSTs based on DOI was introduced by Bitner et al. (2002) who recognise SST adoption as a customer decision-making process and propose a six stage model, namely, awareness, investigation, evaluation, trial, repeated use and commitment (see Figure 3.3 below). Bitner et al. (2002) conducted 22 in-depth interviews with customers of a healthcare company which was in the process of implementing a voice response ordering system for prescription refills (Bitner et al., 2002). The results confirm that awareness of the SST instigated the consumer to collect additional information and evaluate the advantages and drawbacks of the new SST, over the traditional method of service delivery. If the evaluation was positive, the customer was likely to try the SST. The stages of the model before trial suggest that customers take the time to rationally evaluate and decide their participation in SSTs. The evaluation stage of the model also suggests that customers have choices to evaluate and the trial stage is an option which occurs only if the outcome from the evaluation stage is favourable. The outcome from the trial would then determine if the usage was repeated and the customer became committed to the SST (Bitner et al., 2002).
A concept that is incorporated in Bitner et al.’s (2002) model is the consumer readiness to use SSTs. The in-depth interviews reveal that even if customers held positive evaluations of SSTs, they still needed to be ready to use them and this was particularly prominent in the trial stage. Bitner et al. (2002) recognise the active participative role of customers in the SST adoption by referring to Bowen (1986) who suggests that customers need to be strategically treated as ‘partial employees’ of the service organisation. Bowen (1986) advocates that in order for customers to be effective in their role as ‘partial employees’ of the company, they need to have the ability to enact the role assigned by the service provider, combined with clarity about their role and motivation to perform it. Those concepts of ability, role clarity and motivation are incorporated in the consumer readiness concept of Bitner et al.’s (2002) adoption model. Therefore, Bitner et al.’s (2002) model integrates the ‘partial employee’ paradigm (Mills and Morris, 1986) with the process of customer adoption of SSTs. This conceptualisation recognises the customer active production role in SST delivery (Meuter et al., 2005) and the co-production aspect of SST service processes (Eastlick et al., 2012).
Figure 3.3 Model of SST Adoption


Meuter et al. (2005) build on Bitner et al.’s (2002) research by exploring more extensively how consumer readiness influences the trial of SSTs. Consumer readiness is defined as ‘a condition or state in which a consumer is prepared and likely to use an innovation for the first time’ (Meuter et al., 2005, p.64). Meuter et al. (2005) state that the aim of their research is to introduce new factors to SST adoption by incorporating them in a conceptual model based on well-established innovation and adoption models (see Figure 3.4 below). Meuter et al. (2005) treat the adoption of an SST as similar to the adoption of a technological innovation, hence the employment of factors affecting the adoption of innovations in DOI. Meuter et al. (2005) highlight that, theoretically, their conceptual model goes beyond the emphasis on attitudes and intentions of SST usage, which dominate SST adoption research.

The set of factors influencing the constructs of consumer readiness is derived from previous innovation and SST adoption literature (Meuter et al., 2005). Those
antecedents to consumer readiness to try SSTs include innovation characteristics (for example, compatibility, relative advantage, complexity, observability, triability and perceived risk) and individual differences (such as inertia, technology anxiety, need for interaction, previous experience, age, gender, education and income). Following the original Bitner et al. (2002) model, Meuter et al. (2005) preserve the suggested structure that the construct of consumer readiness will affect the trial stage of the process. The research confirms that the dimensions of the consumer readiness construct mediate the set of individual differences and innovation characteristics tested. Role clarity and extrinsic motivation emerge as the consumer readiness factors which mediated the largest amount of antecedent predictors (Meuter et al., 2005).

Figure 3.4 Model for Adoption of SSTs

Meuter et al. (2005) employ measures of motivation based on the Expectancy-Valence theory of Vroom (1964) with motivational construct measures including expectancy, instrumentality and valence (Meuter et al., 2005). The intrinsic/extrinsic motivation divide is based on the self-determination theory of Ryan and Deci (2000) where internal motivation refers to undertaking of activities because they satisfy inherent needs while externally motivated activities are aimed at achieving an outcome separate to the activity itself. The self-determination theory places internal/external motivation on a continuum based on the locus of control (Ryan and Deci, 2000). Leung and Matanda (2013) and Wünrich et al. (2013) confirm that self-determined motivation (internal locus of control) is a better motivator of SST adoption intentions than when the motivation is perceived as external to the customer goals and needs. In a self-service check-out context, there is a correlation between self-determined motivation and the basic human needs of autonomy, competency and anonymity (Leung and Matanda, 2013). Leung and Matanda (2013) suggest that future research should further explore how self-determined motivation affects SST usage behaviour and what other human needs in addition to autonomy, relatedness and competency may be relevant. For example, they suggest that the need for trust and novelty may have a relationship to self-determined motivation (Leung and Matanda, 2013).

Following from Meuter et al. (2005), Eastlick et al. (2012) tested the impact of further variables on customers’ extrinsic motivation, ability and role clarity in using supermarket self-service check-outs. In line with Meuter et al. (2005), previous self-scanning experience and technology anxiety had a significant impact on consumer preparedness (role clarity and ability) and the innovation characteristics of ease of use, compatibility and relative advantage were significantly related to the motivation to use the SST (Eastlick et al., 2012). Furthermore, the belief about retailer’s transfer of
service responsibilities impacted the motivation construct (Eastlick et al., 2012). Therefore, while the innovation and customer characteristics are found to be important for predicting SST usage, they are not the only two groups of variables impacting the customer decision. Eastlick et al. (2012) introduce and confirm the impact of another attitudinal mediator of the link between motivation and intentions for SST usage, that of attitude towards co-producing the scanning service. Furthermore, Heidenreich and Handrich (2015) confirm the mediating influence of customer willingness to co-create on the predictive power of innovation and customer characteristics on SST usage intentions. These findings further emphasise that the nature of SST usage is not only related to the adoption of a new technology, but also the co-production of a service where the customer and the service provider assume certain responsibilities (Heidenreich and Handrich, 2015; Eastlick et al., 2012).

Although the importance of customer and service provider responsibilities has been found to have significant impact on their decision to try an SST, the nature and specific definitions of these responsibilities remain unclear (Eastlick et al., 2012). A qualitative study by Hilton et al. (2013) reveals that both customers and service companies provided resources towards the SST provision, thus suggesting the customer/service provider responsibilities may merit further research (Eastlick et al., 2012). Furthermore, the customer evaluation of the fairness of the provided inputs in relation to the obtained outputs is proposed as influencing the customer decision to use an SST (Anitsal and Schumann, 2007).

Meuter et al. (2005) suggest the need for further research regarding the exploration of the other steps of the adoption process from awareness to commitment, as well as in-depth research of the most influential mediator of role clarity. The need for exploring
factors beyond initial trial of SSTs is recognised as important because many SSTs are presently tried and tested by customers (Chen, Chen and Chen, 2009; Curran and Meuter, 2007; Beatson et al., 2007; Veijters et al., 2007; Meuter et al., 2005; Bitner et al., 2002). Bitner et al. (2002, p.103) emphasise that, ‘although trial is a critical step in the adoption process, for many companies the ultimate objective is to encourage customers to continue using the SST on a regular basis.’ Furthermore, the level of usage of the adopted innovation would be of importance to providers for realising profits (Rogers, 2003). The predominant research attention on the early stages of SST usage may be explained with its critical importance for the adoption of the SST (Wang, 2012; Meuter et al., 2005). Wang’s (2012) longitudinal study into supermarket self-service check-out adoption confirms that while satisfaction with trial is of critical importance in the early usage stages, the influence of habit on SST usage grows stronger over time. Thus, the factors which affect the customer decision-making process change over time with the extended usage of SSTs (Wang, 2012).

The discussion of the motivational theories relating to SST research suggests that customer decision-making is complex and a number of theoretical approaches may be applicable. The study of SST adoption has been facilitated by integrating aspects of motivational theories (Patsiotis et al., 2013). For example, Meuter et al. (2005) construct a conceptual model based on DOI, consumer readiness and expectancy theory of motivation. Eastlick et al. (2012) integrate customer motivations and attitudes in a model predicting SST trial, while Wünderlich et al. (2013) test a model based on self-determination theory and TAM. Both TAM and DOI have proven an effective theoretical foundation for the research of customer SST decision-making, where in places these theories have been integrated (see for example, Patsiotis et al., 2013; Eastlick et al., 2012). In their essence, both theories are designed to predict customer
usage of SSTs, which is an essential step towards the actual usage of SSTs (Hilton and Hughes, 2013). In addition to the basic concepts of the SST adoption models, other adoption factors have been hypothesised and confirmed for their influence on SST usage intentions and behaviour. These factors are discussed in the following section.

3.4.2 SST Adoption Factors Research

The research of SST adoption factors is the predominant trend in SST customer behaviour studies in the past decade (Hilton et al., 2013). The following sub-sections discuss empirical research into SST adoption factors. The review of the technology adoption models has already highlighted major factors such as situational influences (Wang et al., 2012; Dabholkar and Bgozzi, 2002), SST characteristics (such as ease of use and usefulness) (Gefen et al., 2003), customer motivations (Leung and Matanda, 2013; Eastlick et al., 2012) and role clarity (Meuter et al., 2005). The following discussion of SST adoption factors is structured around six concepts which emerged as attracting significant research attention, namely, technology readiness, technology anxiety, preference for personal contact, demographic variables, trust and risk.

3.4.2.1 Technology Readiness

The first of six SST adoption factors under review is Technology Readiness (TR). For customers to consider using an SST, they need to believe that they have the skill and knowledge to operate the technology (Meuter et al., 2005) and a general positive attitude towards technology (Chen et al., 2009; Curran and Meuter, 2007). Technology readiness (TR) is a measure of general customer beliefs and attitudes towards technology introduced by Parasuraman (2000), which has found extensive application in SST research (see for example, Elliott et al., 2013; Liljander et al., 2006).
Parasuraman (2000, p.308) defines TR as ‘people’s propensity to embrace and use new technologies for accomplishing goals in home life and at work’. TR is based on the notion that people have positive and negative feelings towards technology, as identified by Mick and Fournier (1998). Mick and Fournier (1998) describe these opposing feelings as technology paradoxes with which consumers have to cope, and these paradoxes include binaries such as control/chaos, freedom/enslavement, new/obsolete, competence/incompetence, efficiency/inefficiency, fulfils/creates needs, assimilation/isolation and engaging/disengaging. The paradoxes and the way customers cope with them define how and when the technology is adopted (Mick and Fournier, 1998). Parasuraman (2000) contends that consumer beliefs of optimism and innovativeness are contributors to TR whilst discomfort and insecurity act as inhibitors. Parasuraman (2000) introduces a measure for TR, called a Technology Readiness Index (TRI), which incorporates the four groups of beliefs relating to technology.

Findings on the impact of TR on intentions towards using SST are conflicting (Elliott et al., 2013). Lin and Hsieh (2007) empirically tested how TR influenced satisfaction and behavioural intentions. The data, collected via questionnaires administered to consumers in Taiwan, supports the hypothesis that TR has an influence on SST usage intentions. Similarly, Tsikriktsis (2004) confirms that segmenting customers based on their TR is effective in predicting their SST usage intentions. In contrast, Chiu, Fang and Tseng (2010), Chen et al. (2009) and Liljander et al. (2006) challenge the importance of TR in explaining SST adoption behaviour. TR of adopters and non-adopters of airport self-service check-in does not differ significantly while other factors such as efficiency of service, control, perceived benefits, preference for personal contact and convenience emerge as stronger predictors (Liljander et al., 2006). Rosenbaum and Wong (2015) confirm that TR does not impact significantly the customer evaluation of
the importance of SSTs in hospitality settings. Elliot *et al.* (2013) also fail to find a strong connection between TR and customer intentions to use self-scanning in shops. However, TR influences customer perceptions of perceived reliability and perceived fun, which directly influence usage intentions (Elliott *et al.*, 2013).

This insignificant influence of TR may be explained with the accuracy of TR measurements in the specific SST contexts (Chiu *et al.*, 2010; Liljander *et al.*, 2006). For example, some customers may experience discomfort with purchasing online, but may feel comfortable purchasing online from a particular company (Chen *et al.*, 2009). Also, hospitality customers suggest that they are taking a ‘technological pause’ while on vacation although they display overall positive attitude and TR (Rosenbaum and Wong, 2015). SST usage is perceived as work which contradicts the perceptions of vacation when people take a break from work; hence, SST usage is rejected (Rosenbaum and Wong, 2015). Therefore, service context may influence customer decisions more than personal factors (Collier *et al.*, 2015). Furthermore, Elliott and Hall (2005) find a relationship between TRI and culture in their study of American and Chinese consumers which reveals that Americans scored better on the TRI measured than Chinese. Gender differences in the scores on TRI were also confirmed, with men scoring higher values (Rosenbaum and Wong, 2015; Elliott, Meng and Hall, 2008). The TRI measure is refined in a later study by Lin and Hsieh (2012) who test the TRI instrument across various SST services and cultures in an attempt to refine a measure which is stable across contexts (Lin and Hsieh, 2012).

Elliott *et al.* (2013) do not question the reliability of the TR measure, but confirm the mediating influence of other variables on the TR’s impact on SST usage intentions. The findings that TR’s influence on SST usage intentions is mediated by perceptions of
reliability and fun may explain why people with high TR may still not choose to use SSTs (Elliot et al., 2013). For continued usage of SSTs, the TR dimensions of optimism and innovativeness are found to have influence on satisfaction and intentions for repeated usage of banking SSTs, while the inhibitor dimensions of discomfort and insecurity have no influence (Chen et al., 2009). The insignificance of the negative dimensions may be explained with the reduction of discomfort and insecurity beliefs because of the accumulated experience and trust in the institution (Chen et al., 2009). According to Mick and Fournier’s (1998) model of technology paradoxes and coping strategies, technology paradoxes create discomfort and emotions of anxiety. Technology anxiety has been found to directly influence SST usage intentions (Meuter et al., 2003) and is examined in the following section.

3.4.2.2 Technology Anxiety

The second of the six factors under review is Technology Anxiety (TA) which is another construct relating to customer attitude towards technology, which has been researched in an SST context (Meuter et al., 2003). Meuter et al. (2003, p.900) define TA as ‘the user’s state of mind regarding their ability and willingness to use technology-related tools’. TA can negatively influence customer adoption of SSTs (Zhao et al., 2008; Meuter et al., 2003). Meuter et al. (2003) and Lu and Su (2009) report a strong negative impact of TA on SST usage intentions while Meuter et al. (2003) find that TA is a better predictor of SST usage than demographic factors. TA is also found to have a direct negative relationship to mobile shopping intentions (Lu and Su, 2009), and the usage intention of hotel, shopping and library kiosks (Oyedele and Simpson, 2007).
Furthermore, TA has been proven to affect SST usage intentions through the mediating influence of other variables such as ease of use (Zhao et al., 2008) and consumer readiness (Eastlick et al., 2012; Meuter et al., 2005). Zhao et al.’s (2008) study concludes that although TA does not display a strong, direct correlation to behavioural intentions to use library service SSTs, TA affects SST usage through the mediating variable of ease of use. Ease of use is found to be significantly related to usage intentions, which suggests that although TA may not be a strong predictor of behavioural intention, it is still a factor which indirectly impacts the usage of SSTs (Zhao et al., 2008). Similarly, TA is found to be correlated to the consumer readiness construct which influences customer trial of SSTs (Eastlick et al., 2012; Meuter et al., 2005).

The research into antecedents to TA has provided understanding of the marketing segments more likely to display higher TA (Lee et al., 2010) and the possible factors which may affect TA levels (Zhao et al., 2008). Lee et al. (2010) provide empirical evidence suggesting that demographic variables such as age, gender and income have a statistically significant relationship to TA. Women, older people and consumers with lower incomes displayed greater levels of TA (Lee et al., 2010). Therefore, even though Meuter et al. (2003) find that TA is a better predictor of SST usage than demographics, there is a relationship between TA and age, gender and income. As such, although the influence of TA on SST usage is explicit, its antecedents require further research (Meuter et al., 2003). For example, the design of the interface, customer training, provision of service choices and incentives may include possible factors influencing TA (Meuter et al., 2003).
In addition to the influence of TA on concepts of consumer ability to use the SST, such as self-efficacy and ease of use, Oyedele and Simpson (2007) suggest that the inability of customers to use the SST raises their TA. There is empirical confirmation of the positive affect of mobile skilfulness on TA (Lu and Su, 2009) and self-efficacy on TA (Zhao et al., 2008). These findings empirically confirm the two-way relationship between TA and customer perceptions of their ability to use the SST. Therefore, Zhao et al. (2008) confirm that training customers to use SSTs improves their self-efficacy perceptions and decreases their TA. Another factor which affects the TA construct is forced usage, that is, when customers have no other option available to them to deliver the service but an SST (Liu, 2012). This is described in Liu (2012) who finds a positive association between forced usage and TA. This impact of forced usage on TA may be alleviated through training customers and raising their overall confidence with SSTs which would lower their TA (Liu, 2012; Zhu et al., 2008). Another factor which is found to have a negative impact on SST usage and association with TA is the preference for personal contact (Eastlick et al., 2012), discussed in the next section.

3.4.2.3 Preference for Personal Contact

The third factor which affects SST adoption is the customer’s preference for personal contact/need for interaction (see for example, Oh et al., 2013; Lee et al., 2010; Walker and Johnson, 2006). The importance of exploring customer preference for personal contact is suggested by Walker and Johnson (2006) who report that 35% of participants in their research always prefer personal contact and 65% prefer it on some occasions, such as when they want to complain or require prompt resolution of a problem. Customers also develop negative attitudes towards a company if they are not offered a personal option of service delivery, or there is no personal backup when something has gone wrong (Reinders et al., 2008).
The direct negative effect of preference for personal contact on retail self-scanning usage is empirically confirmed in Lee et al. (2010) and Dean (2008). Meuter et al. (2005) find support that a need for interaction had a negative influence on banking SST trial through the mediating influence of consumer readiness. Oh et al. (2013) also confirm the direct negative effect of a need for interaction on guests’ usage of resort check-in systems. Dabholkar and Bagozzi (2002) highlight a moderating effect of the need for interaction on customer perceptions of ease of use, usefulness and fun, which determine the customer attitude and intentions to use retail self-scanning.

In contrast, Curran and Meuter (2005) find no support for the influence of need for interaction on intentions to use three SST types, namely ATM, banking by phone and internet banking. Curran and Meuter (2005) note that a need for interaction was not found to be a significant belief antecedent to the attitude towards SSTs in their study, but acknowledge that in other contexts and research settings, this construct can be of more importance. Similarly, Hsiao and Tsang (2015) and Eastlick et al. (2012) did not get support for the influence of preference for personal contact on customer motivation to use SSTs. The inconsistency in results regarding the influence of preference for personal contact on SST usage has been suggested to be context bound (Eastlick et al., 2012). For example, Eastlick et al. (2012) suggests that the context of their research was characterised by the physical presence of employees, so customers could interact with them if they had a high need for interaction before they got to the self-service checkout. Therefore, further research is needed to explore the relationship between preference for personal contact and service context (Eastlick et al., 2012).

The determinants of the preference for the personal service construct have been explored by Simon and Usunier (2007). Their research concludes that personal
cognitive style (rational/experiential) and age have the strongest influence on the preference for the personal service. Cognitive style refers to the way people process information and differentiates between two modes, rational system and experiential system (Simon and Usunier, 2007). The rational system is analytical, verbal and associated with mental activities on the conscious level, while the experiential system is more automatic and associated with affect (Simon and Usunier, 2007). The desire for personal interaction is found to relate negatively to the customer desire for autonomy and the perceptions of SST ease of use, but it relates positively to the desire for effectiveness (Oh et al., 2013). Research evidence suggests that preference for personal contact also grows stronger with age (see for example, Lee et al., 2010; Dean, 2008; Simon and Usunier, 2007). Research on how demographics may be associated with customer characteristics and perceptions is discussed in the next sub-section.

3.4.2.4 Demographic Variables

The fourth of six SST adoption factors reviewed in this section is demographic variables, including age, gender, education and income (see for example, Lee et al., 2010; Nilsson, 2007; Chang and Samuel, 2004; Wu, 2003). The possible effects of demographic variables on SST adoption decisions have attracted research attention because they may provide a convenient ground for marketing segmentation (Lee et al., 2010). Demographic characteristics may affect SST usage directly (Nilsson 2007; Chang and Samuel, 2004), by influencing beliefs and attitudes related to SST usage (Weijters et al., 2007; Elliott and Hall, 2005; Wu, 2003) or have a connection to personality traits which affect SST usage (Lee et al., 2010).

Moital, Vaughan and Edwards’ (2009) study shows that demographic variables like age, education and gender had no influence on the online purchasing behaviour of their
Portuguese research sample. Similar results are reported by Weijters et al. (2007), whose research in a retail context confirms that demographics have no significant effect on beliefs and attitudes towards SSTs. Weijters et al. (2007) found that age has no influence on attitudes and usage of SSTs, but they found that education has a positive relationship with *perceived newness* and that men focus more on the benefits from using technology. Dabholkar et al. (2003) found that shopper age had little influence on adoption of self-scanning in grocery shops. Even if customer demographics display some limited influence on the adoption of SSTs, their influence may be weakened when consumers gain more SST usage experience (Moital et al., 2009; Nilsson, 2007; Dabholkar et al., 2003).

Some studies do confirm differences associated with age (see for example, Dean, 2008; Simon and Usunier, 2007; Turner, Turner and van de Walle, 2007; Chang and Samuel, 2004). Dean (2008) found differences in the adoption of SSTs between the age groups of 18-28 years, 29-48 years and 49+ years. The increase in age was found to have a negative effect on consumers’ preferences for SST to human contact, confidence to use SSTs, and belief in the benefit from using technology. Simon and Usunier’s (2007) study of factors affecting consumers’ preferences for personal contact over SSTs also found that age had a strong negative effect on preferences for SSTs.

Turner et al. (2007) undertook a qualitative, longitudinal study of older adults’ experiences of information technology with a sample of adults aged 70-85 who completed a computer learning course. The study finds some age specific factors which can be detrimental to learning and, hence, adoption of technology. Some interviewees identify that, because of their age, they had no motivation to learn and expressed
resistance to change while others reported memory problems and lack of time (Turner et al., 2007).

Lee et al. (2010) attempt to solve the dilemma as to whether personality traits or demographics are better predictors of SST adoption through an exploration of the interaction between customer demographic characteristics and personality traits and their influence on customer SST usage intentions. The study concludes that the selected demographics of age, gender, education and income influence SST usage through the mediating effect of the personality traits of technology anxiety, need for interaction and technology innovativeness (Lee et al., 2010). For example, technology innovativeness and technology anxiety were influenced by gender, with men exhibiting a greater level of technology innovativeness and less technology anxiety (Lee et al., 2010). Age affected all three personality traits, where older people needed more personal contact, showed more technology anxiety and less technology innovativeness (Lee et al., 2010). Similar results have been reported by Rosenbaum and Wong (2015) who found that TR is higher amongst young males with higher education. Income affected technology anxiety, with higher income earners being less anxious about technology. The education construct was the only one which did not show significant relationship to any of the three personality traits in Lee et al.’s (2010) study.

Changes in society (Chang and Samuel, 2004) and differences in cultures may also explain some of the difference in results of the influence of demographics on SST usage (Nilsson, 2007). Nilsson (2007) found that demographic profiles of consumers in Western markets were different than in Eastern, developing countries. The statistical analysis confirmed that the typical user of online banking in Estonia was a young, well-educated male with high income, whilst Swedish users did not display differences
across age, gender, education and income groups. Finally, Wang, Wang, Lin and Tang (2003) suggest that if the ultimate objective of a company is for an SST to reach different demographic groups, then the effects of age, gender and education should have few implications for marketers in the long term. This means that over time with the wider dissemination of technology in society, it will become accessible to all customer segments (Wang et al., 2003). Therefore the focus should be on how to facilitate the usage needs of all customer segments, instead of targeting the ones who are more likely to adopt it (Nilsson, 2007).

In addition to the examined adoption factors of technology readiness, technology anxiety, preference for personal contact and demographic variables, the customer perceptions of trust and risk have been posited as important predictors of SST adoption (see for example, Chang and Chen, 2008; Gefen et al., 2003) and are discussed in the following sections.

3.4.2.5 Trust

The fifth SST adoption factor is trust which is a direct antecedent of behavioural intentions in electronic environments (see for example, Yousafzai et al., 2009; Gefen et al., 2003; McKnight et al., 2002). Bitner et al. (2000) acknowledge that the infusion of technologies in service may not be welcomed by all customers, regardless of benefits. Meuter et al. (2000) suggest that developing trust with customers during SST service is essential, but could be more challenging than during face-to-face customer-employee service encounters.

The trust construct is regarded in the literature as challenging to measure as a one dimensional phenomenon (McKnight et al. 2002). McKnight et al.’s (2002) conceptual model, based on a review of the extant literature on trust has been empirically tested on
1403 undergraduate and graduate students at three large US universities. The model tests how disposition to trust and institution-based trust affect trusting beliefs and trusting intentions. The findings from statistical analysis identify a relationship between disposition to trust and trusting beliefs, and trusting beliefs and trusting intentions (McKnight et al., 2002). None of the paths from institution-based trust to trusting beliefs and trusting intentions were supported. This finding was not expected and it was interpreted as a shortcoming of the definition of institution-based trust as a general belief in the internet rather than a specific website context, and suggests a need for further attention (McKnight et al., 2002). The authors suggest that there is potential for the model to be tested in an e-vendor context and examined for changes beyond the initial trust and moving into on-going commercial relationships. Similarly, Yousafzai et al. (2009) have examined the antecedents of trust in an internet bank setting. Their study finds that the antecedent of trust is perceived trustworthiness (ability, integrity and benevolence of the organisation), which is mediated by perceived security and perceived privacy.

Factors influencing trust in internet shopping in Ireland have been tested by Connolly and Bannister (2008). They employed, as a measurement instrument, the conceptual model developed by Cheung and Lee (2000) which posits that trust in internet shopping is determined by two groups of antecedent predictors, that of trustworthiness of the internet vendor (consisting of perceived security control, perceived privacy control, perceived integrity and perceived competence) and the external environment (consisting of third party recognition and legal framework). The influence of the listed predictors on trust in internet shopping is mediated by the personality trait of propensity to trust, which represents the general disposition to trust (Cheung and Lee, 2000). The empirical testing of the model by Connolly and Bannister (2008) argues that external environment
factors, such as placing third party recognition links on the website, have a very weak influence on consumer trust and that the moderating effect of propensity to trust is non-existent. In an Irish context, the trustworthiness of the internet vendor, combined with previous experience (which is part of the propensity to trust variable) were the two direct antecedents of trust while higher technical awareness led to the perception of higher trustworthiness of the internet vendor (Connolly and Bannister, 2008). The Cheung and Lee model did not hold in an Irish context; therefore, global factors influencing consumer trust in internet shopping require further research (Connolly and Bannister, 2008).

Trust is essential not only in the early stages of adoption of an SST, but also for stimulating continued usage (Gefen et al., 2003). The measures of trust in internet shopping that Gefen et al. (2003) employ, similar to that used in McKnight et al. (2002), include integrity, benevolence, ability and predictability of the internet vendor. Gefen et al. (2003) confirm the direct influence of trust on continued usage of online shopping websites. From the discussion of SST trust construct research, it is clear that this factor is of primary importance in the adoption and continued usage of internet SSTs, particularly e-commerce websites. The most defined dimension of trust in internet shopping is the trust in the internet vendor (Connolly and Bannister, 2008; Gefen et al., 2003; McKnight et al., 2002) which is measured by the vendor’s benevolence, integrity, ability and predictability (Gefen et al., 2003; McKnight et al., 2002). The trust construct is often researched together with risk and the relationship between them is confirmed to be reciprocal, meaning that increasing trust reduces risk and vice versa (Chang and Chen, 2008).
3.4.2.6 Risk

The sixth factor affecting users’ adoption of SSTs is the perception of risk. Dimensions of risk affecting user adoption of SSTs include performance risk, security risk, financial risk, physical risk, psychological risk (Kim et al., 2009). The usage of non-generalisable student samples and single measures has been recognised as a common weakness in the research of risk in internet shopping (see for example, Kim et al., 2009; Cunningham et al., 2005). Cases (2002) studied risk within a very specific research context, that of online clothes shopping, which she recognised as a shortcoming of the research. Payment and privacy security appear as major risk factors in internet shopping settings (Forsythe and Shi, 2003; Cases, 2002; Liebermann and Stashevsky, 2002). Demographic characteristics, such as shopping experience, gender, marital status, age, professional position and income have a significant influence on the risk perception variable in Kim et al. (2009). Liebermann and Stashevsky (2002) also confirm that risk is perceived differently depending on gender, age, marital status and education. The best risk reduction strategies include shopping around over the web; reputation of the web vendor; recommendations of family and friends; and the incorporation of symbols of security in the company website (Kim et al., 2009).

Risk is recognised as an evolving construct in Cunningham, Gerlach and Harper (2004) who follow how internet risk perceptions change during the five stages of an online airplane ticket buying process, from problem recognition, information search and evaluation of alternatives, to the purchase and post-purchase. The main findings from the questionnaire survey, administered by Cunningham et al. (2004), show that the internet is perceived as a riskier medium in comparison to off-line purchasing of airline tickets. Furthermore, the risk perceptions of customers changed from relatively high in stage one, lowered at stage two when consumers gathered information, peaked at stages
three and four when the customer had to decide between alternatives and purchase, and lowered but remained high, in the last post-purchase stage. Cunningham et al. (2004) conclude their study by suggesting further examination of the risk variable is required, particularly in the purchase stage when risk is deemed to be at its highest.

Risk in travel and tourism is further intensified by the specific characteristics of the tourism context (Kim et al., 2009). Kim et al. (2009) summarise the characteristics of the tourism context that contribute to its relatively high perception of risk in comparison to other service contexts. Firstly, most tourism services, such as a visit to a museum or a fine dining experience, represent intangible experiences which are interpreted subjectively by the customer. Secondly, some tourism services are purchased before experience, which increases the risk of not meeting the customer expectations. Thirdly, there could be variations in performance due to dependence on situational variables like weather, performance of the different components of the package and other tourists. And lastly, tourism services are perishable, so the service quality is largely dependent on fluctuations in demand.

SST decision-making has been described in this section as being underpinned by motivational theories of human needs and expectancy theories. Throughout the literature review, SST decision-making has been treated as voluntary behaviour whereby it is the customer’s choice to engage in SST usage. The reviewed SST adoption factors affect the customer’s independent decision to engage with SSTs. Rogers (2003) suggests that consumer adoption of service innovations is voluntary as no company would risk losing custom by forcing unwanted technology while Baron et al. (2006) indicate that the voluntary/mandatory construct from technology acceptance in work environment is not applicable to consumer technology acceptance. Despite
these suggestions that customers always voluntarily adopt technology, Meuter et al. (2000) has stated that customers are given the option to use SSTs as an alternative to personal service or are asked by companies to use those (Meuter et al., 2000). Customers may not always be given a choice of service delivery channels (Reinders et al., 2008). Therefore, the following section discusses customer forced usage of SSTs.

3.4.3 Empowerment versus Forced Usage

Research suggests that the increase in service delivery options for the customer, and specifically SSTs, empowers the customer to deliver more satisfying (Lawlor, 2006) and meaningful (Neuhofer et al., 2014) service experiences. Customer empowerment is a power relations concept in which power is passed from one entity, the organisation, to another, the customer (Harrison, Waite and Hunter, 2006). The process of empowerment is defined as the ‘giving of power and authority to make decisions’ (Pires et al., 2006, p. 938). The definition of empowerment implies freedom of choice and power to actualise ones choices (McGregor, 2005).

Consumer empowerment in the information age is associated with the ‘democratisation of information’, which is largely aided by the internet (Harrison, Waite and Hunter, 2006; Pires et al., 2006). In the context of the internet, the main changes which can increase customer power have been identified by Pires et al. (2006). These include the increase in search options and choice in services, combined with the opportunity to freely exchange information about products with peers, independent of company communications. The internet has empowered the consumer beyond interactions that the service company has access to (Pires et al., 2006). Social media sites and travel advice sites allow consumers to act as marketers to service providers independent of the knowledge or permission of those companies (Pires et al., 2006). Furthermore, the
increased access to information about service providers from all over the world has increased the quality and value expectations of consumers (Pires et al., 2006).

McGregor (2005) suggests that the above view of consumer empowerment is dated and should be conceptually changed, when aiming for sustainable consumer empowerment. Traditionally, an empowered consumer is one who has enough information and access to competition to be able to assert his/her rights and not let producers take advantage of him/her (McGregor, 2005). The empowered consumer knows what the return policy of a shop is before they purchase a product, or how to react if their flight is cancelled. McGregor (2005) advocates a more holistic view of consumer empowerment, with the empowered responsible global citizen in their consumer role. The global citizen is ecologically and socially responsible and aware of their inner powers to change the world (McGregor, 2005). The empowered consumer within the global citizen concept does not accept the dominating role of service providers, but rather combines powers with other consumers to challenge the status quo (McGregor, 2005). The sustainable consumer empowerment is not a threat to service providers as responsible customers will take less advantage of the company, will be more willing to share product knowledge, and will have high moral values (McGregor, 2005).

Customer empowerment is achieved through customer education (McGregor, 2005) and customer inclusion in the service process through self-service (Harrison et al., 2006). When customers are given a choice to obtain a service via an interaction with a service employee or via an SST interaction, they are empowered. By encouraging customer participation in service delivery, companies are allowing for customers to broach the boundaries of the organisation, thus invariably transferring more power to them (Prahalad and Ramaswamy, 2000). If customers choose to use the SST, they should feel
even more empowered because technically they are in control of the service transaction (Lawlor, 2006). Customer empowerment should result in mutually rewarding outcomes for both the customer and the service provider (Lawlor, 2010; Lovelock and Young, 1979) because customers are put in charge of their service experience, while the service provider is saving on production costs (Harrison et al., 2006; Pires et al., 2006).

Service companies may offer multiple channels of contact with the customer as multi-channel customers have been found to be of higher value for a company (Bergman and Thelen, 2004) and the service may reach wider geographical areas and customer bases (Schroeder and Zaharia, 2008). The optimal service situation would be to have a number of service delivery channels from which the customer may choose, however maintaining too many channels may affect the profits of the company and the consistency of service quality across channels (Bergman and Thelen, 2004). The purpose of researching customer decision-making with SSTs has been to identify factors which SST providers may influence and thus increase adoption rates amongst their customers (Leung and Matanda, 2013; Patsiotis et al., 2013).

The strategy of persuading customers to interact with the most cost-efficient channel for the company amongst its service channels has been termed ‘right-channelling’ (Neslin and Shankar, 2009). Channelling customers may be achieved by manipulating the attractiveness of the different channel attributes (Curran, Meuter and Surprenant, 2003; Verhoef, Reinarzt and Krafft, 2007). For example, if customers avoid the internet channel because of privacy concerns, its attractiveness may be increased by publishing a transparent privacy policy (Verhoef et al., 2007). Another strategy for channelling customers is the manipulation of the retaining power of a channel, or ‘channel lock-in’, and the complementarities between channels, also termed ‘cross-channel synergies’
For example, an online shop may increase the online channel lock-in by remembering customer data, while a furniture shop may prefer to increase the cross-channel synergy between its website and off-line store in order to attract customers to the store and realise more sales (Verhoef et al., 2007).

Customer channel usage may be managed by the company through cost incentives to ‘right-channel’ or by removing the undesired channels and forcing customers to interact with the remaining options (Hughes, 2006). Examples include railway stations where tickets can be purchased only from a ticketing kiosk (Reinders et al., 2008), hotels with no onsite reception desk (Castro et al., 2010) and airlines who fine their customers for not checking in online (Lawlor, 2010). These companies are dictating their customers’ SSTs use, thus leaving them with no choice. This phenomenon of leaving customers only with an SST option of service delivery has been termed ‘forced’ usage by Reinders et al. (2008). The existence of this phenomenon is also indicated by customers in Meuter et al. (2003) who have found that one of the reasons for customers to use SSTs is that in some situations no other option was provided to them. Customer reactions to being channelled towards the most cost efficient for the company SST option has attracted research attention because of its benefit for service providers (see for example, Liu, 2012; Konus et al., 2009; Reinders et al., 2008).

When SST usage is imposed on customers, this may result in severely negative customer experiences (see for example, Konus et al., 2009; Reinders et al., 2008). Empirical research by Reinders et al. (2008) into the consequences of forcing consumers to use SSTs concludes that when consumers are left with no choice but to use an SST, they develop negative attitudes towards the company, their switching intentions rise and negative word-of-mouth may result. Furthermore, the reduction in
customer freedom of channel choice results in negative emotional reactance and reduced satisfaction levels (Konus et al., 2009). The negative customer outcomes were found to be alleviated if the customer has experience with the SST or a fall-back option is offered (Reinders et al., 2008). The introduction of monetary incentives may also contribute towards alleviation of the negative customer emotions associated with reduced channel choice (Konus et al., 2009).

Therefore, the provision to customers of information and access to service processes does not automatically ensure empowered customers (McGregor, 2005). If customers are not ready to accept and utilise this power, it may actually become unwanted/forced self-service (Reinders et al., 2008; Walker et al., 2002) and too much unnecessary information (Harrison et al., 2006). Walker et al. (2002) suggest that empowerment relates to customer willingness and ability to use SSTs. They define four customer clusters based on their views of SSTs. These clusters are listed below with indications of their estimated capability and willingness to use SSTs:

- People-people pragmatists – they possess above average capability to use technology and are reasonably willing to use it.

- Techno-warries – they have concerns about using technology and appear largely unwilling to use it. They do recognise the benefits of using SSTs.

- Techno-beneficiaries – they are able and willing to use SSTs. They are strong believers in the advantages of using technology.

- Techno-phobes – they perceive mainly the risks and difficulties of using SSTs and do not use them or are highly unwilling to use them.
Walker et al.’s (2002, p.102) clusters indicate that not all customers display an equally strong desire to use SSTs which represents a marketing challenge to convert ‘non-voluntary users to more willing and confident users’. Walker and Johnson (2006) suggest that marketers should be equally concerned with strengthening the capabilities of their customers and instilling positive attitudes to use SSTs. Walker et al. (2002, p.102) use terms such as ‘voluntary’ and ‘non-voluntary’ users of SSTs and suggest that SST adoption can be characterised by feelings of ‘having to’ and ‘compelled to’, rather than ‘wanting to’. Therefore, the process of customer empowerment through SSTs may have a positive or negative impact on the customer service experience (Pires et al., 2006). Right-channelling customers and forcing them to interact with SSTs raises the question as to whether customers welcome these technologies and are adapting to their active service production role (Lawlor, 2010; Ritzer and Jurgenson, 2010; Pires et al., 2006). Having reviewed the literature on customer SST decision-making, the following section discusses the next stage of co-production when customers actively engage in service delivery.

3.5 Activation Stage

As the review of co-production models identifies, the decision-making stage is followed by the stage of activation when customers take part in co-production activities (Etgar, 2008). Customer participation in services has been conceptualised in terms of roles that customers undertake (Moeller et al., 2013; Bitner et al., 1997). Customers have been viewed as ‘partial employees’ who affect the overall productivity of the organisation (Mills and Morris, 1986). The partial employee perspective suggests that customers are social actors following service scripts, defined and managed by the organisation (Kelley et al., 1990; Solomon, Surprenant, Czeliel and Gutman, 1985).
The rise of technology and the democratisation of customer participation in service has challenged the inadequacies of the ‘partial employee’ perspective in fully reflecting increased customer power (Hibbert, Winklhofer and Temerak, 2012; Graf, 2007). The adoption of a customer-centric view recognises the value-creating power of customers as self-initiating co-creators towards achieving their consumption goals (Grönroos and Gummerus, 2014; Vargo and Lusch, 2008). This view presents the customer as a central actor who may choose to involve service providers in achieving their consumption goals (Heinonen et al., 2010). This section provides an overview of the various conceptualisations of the partial employee and the evolvement of the co-creator view of customer roles in services.

3.5.1 The Partial Employee

Before the industrial revolution, market exchange was characterised by goods exchange between producers and consumers (Vargo and Lusch, 2004). The industrial revolution and the manufacturing industry increased wealth and decreased the human labour necessary to produce goods, which led to a boom in the services industry (Mills and Morris, 1986). Therefore, the pre-industrial roles of customers, as buyers, and producers, as sellers, who are engaged in a goods exchange had to be reconsidered (Graf, 2007; Vargo and Lusch, 2004). Lovelock and Young (1979) recognised that one of the ways to increase company productivity and reduce costs was to involve customers in the service production process and not only in consumption.

The role of the customer as an active participant in service delivery became a well-established paradigm in the service management literature, even before the appearance of SSTs (see for example, Bitner et al., 1997; Mills and Morris, 1986; Lovelock and Young, 1979). Concepts such as ‘partial employee’ (Mills and Morris, 1986), ‘quasi-
employee’ (Ford and Heaton, 2001) and ‘transient employee’ (Namasivayam, 2003) reflect the active role ascribed to customers in the service production process. The partial employee perspective has given rise to the conceptualisation of general customer service roles as well as strategies for customer management (see for example, Chervonnaya, 2003; Bitner et al., 1997).

From the partial employee view, customers may undertake various roles during service production (Bitner et al., 1997) which may be defined as the customer contributions and inputs to the service process (Groth, 2005; Bitner et al., 1997). The customer provides inputs as a producer of the service (Groth, 2005; Bitner et al., 1997), contributor to quality (Bitner et al., 1997), competitor to the organisation (Bitner et al., 1997) or engages in voluntary, citizenship behaviours which are beneficial to the organisation (Groth, 2005). Customer roles have also been employed to represent the job descriptions of customer positions similar to those of employees of the organisation, such as consultant, quality control inspector and manager (Namasivayan, 2003; Ford and Heaton, 2001). Customer roles may also represent the customer activities, skills and motivation to follow scripts during service encounters (Moeller et al., 2013). The customer roles have been linked to service classifications (Moeller et al., 2013; Chervonnaya, 2003) or types of service situations (Guiry, 1992).

The customer contributions to the service process have been defined by Bitner et al. (1997) in terms of three customer roles: the customer as a productive resource; the customer as a contributor to quality, satisfaction and value; and the customer as a competitor to the service organisation (Bitner et al. 1997). In the first role, the customer as a productive resource contributes information or actions towards the delivery of the service. Halbesleben and Buckley (2004, p.361) define the productive resource function
of customers in service as a ‘strategic partner’ or ‘employee replacement’. The
distinction between those customer contributions is that strategic partners provide
information or action inputs to help employees perform their duties, while employee
replacements perform the duties of employees. Groth (2005) suggest that there are
compulsory customer contributions required for the completion of the service, such as
giving specifications of the required service, paying for the service or providing
information.

The second customer role defined by Bitner et al. (1997) is the customer as a
contributor to quality, satisfaction and value. Customers in their productive resource
role provide the necessary inputs for co-production of the services, but the quality of
their inputs shapes their role as a contributor to their own satisfaction (Bitner et al.,
1997). This is particularly true for services such as healthcare, fitness and education,
where the consumer directly contributes to the outcome of the service through the
quality of their inputs (Bitner et al., 1997). The customer role as contributor to
satisfaction may be affected by self-service bias whereby the customer is more likely to
attribute credit for positive outcomes to themselves and blame for negative outcomes to
the service provider (Bendapudi and Leone, 2003). These findings emphasise that
increased customer input in service production may amplify customer
satisfaction/dissatisfaction with the service (Bendapudi and Leone, 2003).

Customers can also act as competitors to the company by choosing to perform the
service themselves; for example, a car owner who does his own maintenance instead of
going to a garage. In this role, customers contribute to the company business by putting
pressure on reconceptualising service value offerings (Bitner et al., 1997). Customers
may also act as benevolent, voluntary contributors to the wellbeing of the company
when they engage in citizenship behaviours (Groth, 2005; Lengnick-Hall, Claycomb and Inks, 2000). Citizenship behaviours are not compulsory and may include helping other customers, providing feedback to the service provider and recommending the service (Groth, 2005).

The partial employee view of customers has also been conceptualised as customer roles analogous to employee job positions (see for example, Namasivayam, Ford and Heaton, 2001). These roles represent the service provider’s perspective of the employee positions which customers may undertake and thus increase the productivity of the organisation (Ford and Heaton, 2001). Namasivayam (2003) conceptualised four customer roles based on concepts from employee management. These include the nature of job demand (workload) and decision latitude (the employee’s authority to make decisions on the job) as concepts contributing towards employee job satisfaction. When customers have a high workload and have limited authority to make decisions, this leads to dissatisfaction with co-production (Namasivayam, 2003). For example, a role which is high in demand and low in controllability, immigration control, is termed a ‘high strain’ job and it is likely to lead to dissatisfaction for the customer (Namasivayam, 2003). In contrast, a high demand, high control customer role is termed an ‘active’ job, such as visiting a theme park, and is likely to lead to exciting experiences (Namasivayam, 2003). A ‘low strain’ job is low in work load and high in control, such as using a self-service buffet, and it may lead to satisfaction. The fourth role is termed a ‘passive’ one, accompanied by a neither satisfied nor dissatisfied experience, and it is reflected with ordering in a fast food restaurant.

Another strand of the literature on customer roles is based on role theory (Biddle, 1986; Solomon et al., 1985) and conceptualises service encounters as dramaturgical
performances, where all actors undertake ‘roles’ (Chervonnaya, 2003; Guiry, 1992), and fulfil ‘scripts’ (Chervonnaya, 2003; Parker and Ward, 2000). Customer roles represent distinctive patterns of ‘visible’ and ‘invisible’ actions which customers perform in service situations (Chervonnaya, 2003). These customer roles reflect the enactment of a script, which makes them different from the previously discussed roles based on customer contributions. From a role theory perspective, Moeller et al. (2013) identify four aspects of customer script performance in services which may be applied as dimensions in defining customer roles. These aspects include the collaboration activities of customers with the service provider, the customer ability, the customer motivation to enact the specified role, and the possible challenges in terms of role conflict or functional barriers (Moeller et al., 2013).

Chervonnaya (2003) proposes 10 customer roles which describe the activities and required customer skills in services. Customers act as ‘decision-makers’ when they choose between self-service and personal options of service delivery, or as ‘hunters’ when they make a choice of service provider (Chervonnaya, 2003). Customers are called ‘ingredient’ when they provide necessary service specifications, ‘Janus’ when they co-produce the service with an employee, or ‘competitor’ when they choose self-service (Chervonnaya, 2003). Customers may also play the role of an ‘auditor’ when they evaluate the quality of the service, and they may share product information with the company as ‘instructors’ or with other customers as a ‘marketer’ (Chervonnaya, 2003). When the customer role during service delivery is passive, they are in an ‘inert’ or ‘idle’ role. Each of these roles is then linked to a two-dimensional service processes classification; that of the standardisation of the service and the provider monopoly over the knowledge pertaining to processes (Chervonnaya, 2003).
From a role theory perspective, customer roles may be specific to the service context, and not only the service type (see for example, Guiry, 1992). A variety of service contexts where customers have interactions with a service contact employee were explored in Guiry such as restaurants and retail (1992). Guiry (1992) specifies three customer perspectives on their role during customer-employee interactions: the customer roles of dependence whereby the customer receives employee advice and assistance; autonomy, when the customer independently delivers the service; and mutuality whereby the customer and employee co-produce the experience. The customer expectations of undertaking each of the three roles are determined by their experience and perceptions of the service context (Guiry, 1992). For example, when clothes shopping in a department store, some customers perceived themselves as able to make decisions on their own and preferred to look around without shop assistant intervention (Guiry, 1992). The extent to which customers actually undertook their expected role was linked to their satisfaction with the service encounter (Guiry, 1992).

Parker and Ward (2000) have identified customer-to-customer interaction as an important area of research in the context of service delivery. Parker and Ward (2000) propose that customers may play four roles during customer-to-customer interactions, such as proactive help seeker, reactive help seeker, reactive helper and proactive helper. These roles were found to have their specific motivation: proactive helpers wanted to display their expertise, reactive helpers and proactive help seekers were seeking social interaction, and reactive helpers wanted to prevent fellow customers from purchase risk (Parker and Ward, 2000). In the context of SSTs, customer-to-customer interactions have not attracted research attention, which is identified as a fruitful research gap by Nicholls (2010). Many SST services are delivered in non-employee service contexts such as kiosks, ATMs and websites, where customers may come in direct contact,
without the supervision of employees (Nicholls, 2010). It is of importance to explore to what extent customer interactions in such contexts affect the service experience (Nicholls, 2010).

With the rise of technology in services, customer roles are evolving and becoming more sophisticated, including roles such as the customer as a source of competence, the customer as an innovator and the customer as an advocate (Graf, 2007). The customer as a source of competence contributes by being knowledgeable about the service production process, thus challenging the company to improve its internal functions in order to provide more efficient service (Graf, 2007). The customer may take on the role of an innovator when participating in the development of new products, such as when ‘lead-users’ develop new software (Graf, 2007, p. 494). These developments may take the form of ‘crowd sourcing’ by companies (Accenture, 2015). The connectedness of technological platforms increases the customer opportunities to get involved in product building communities set up by companies, or between users (Accenture, 2015). The role of the customer as an advocate is based on the view of customers participating in a community and building a product together, and managing this process themselves (Graf, 2007). An example of this is the open source movement in software development which has changed the face of the software industry (Accenture, 2014). The open source Linux operating system is at the base of the Android mobile operating system which is forecasted to be used by over 70% of mobile devices by 2017 (Accenture, 2014). An example of the customer as an advocate, from the tourism industry, would be the Aloft brand of hotels in the virtual world, Second Life. This brand was developed with the help of customers playing the role of cyber-architects of a virtual hotel (Egger, 2010). Customers interacted with company employees, and with other customers in Second
Life, and created this virtual hotel brand that led to the building of real life Starwood Hotels (Egger, 2010).

The extant research into SST adoption by customers treats the customer as a ‘partial employee’ who is managed by the company (see for example, Meuter et al., 2005; Bitner et al., 2002). The focus is on communicating to the customer their production role which is defined by the company (see for example, ‘role clarity’ as identified by Meuter et al., 2005), training customers to improve their skills (Zhao et al., 2008) and understanding the factors behind customer attitudes towards the SST and how to craft strategies to change these attitudes (see for example, Dabholkar et al., 2003). This perspective of managing the customer may have been effective during the stage of SST introduction to customer markets, but at present customers are becoming ever more independent and tech-savvy (Accenture, 2015). Therefore, SST research would benefit more from understanding how the service company may get involved in facilitating customer consumption goals through service, rather than only involving customers in the production process of the company (Heidenreich and Handrich, 2015; Grönroos and Gummerus, 2014; Heinonen et al., 2010). The following section examines the research on the customer perspective as a co-creator of value.

### 3.5.2 The Co-Creator of Value

The publication of Vargo and Lusch’s (2004) S-D Logic has stimulated debate and reformulation of the customer roles in service. The customer-centric perspective has introduced a shift from the view of the ‘partial employee’ who is a resource managed by the organisation, to the ‘co-creator of value’ who engages the service provider in the fulfilment of their consumption goals (Grönroos and Gummerus, 2014). The focus is diverted from production to consumption because this is when value is co-created with
the customer (Vargo and Lusch, 2004). This shift represents a change in the power relations between the service company and the customer in co-creating and determining service value (Prahalad and Ramaswamy, 2003).

Grönroos and Gummerus (2014) propose a differentiation between value co-creator and value creator to constitute the domain where value is created. Value creation occurs in the customer domain independent and unobservable from the service provider, while value co-creation refers to joint creation of value in a process of interaction between the customer and the service provider or other stakeholders (Grönroos and Gummerus, 2014). The present study adopts the term of co-creator of value as defined by the S-D Logic, relating to the process of consumption and customer determination of consumption value. The interactions occurring during the service production are treated as co-production which is directly related to the customer co-creation of value, whereby the value co-created is dependent on the service co-produced.

As identified in Section 3.2.1, co-creation has been conceptualised as customer and supplier processes aimed at creating value for the customer (Payne et al., 2008). These processes involve customer activities categorised as emotion/feeling, cognition/thinking and behaviour/doing (Payne et al., 2008). The limitation of the customer-provider co-creation view is in its scope (Gummesson, Kuusela and Narvanen, 2014; Gummesson, 2008); as discussed earlier, the notion of a value network in the co-creation of value may be a more accurate way of approaching co-creation of value (Lusch et al., 2010; Gummesson, 2008). For example, Ballentyne and Varey (2008) suggest that value may be co-created between other co-creation groups such as customer-customer and producer-producer. Therefore, there is a need to expand the research scope from the
customer-SST encounter to include the SST value-creation system with all its stakeholders and resources (Vargo and Lusch, 2011; Lusch et al., 2010).

Empirical support for the necessity to understand co-creation in a hospitality context, beyond the customer-provider dyad, has been provided by Lugosi (2007). Lugosi’s (2007, p.234) qualitative study of customer participation in the value co-creation of a bar experience distinguishes between ‘service relationships’ and ‘hospitable relationships’. While service relationships include the functional customer-provider exchanges, hospitable relationships explicate social and cultural environments created by customers (Lugosi, 2007). This study of the hospitality experience advocates the expansion of consumer behaviour research to include the social experience aspects of services, such as group values, norms and obligations (Lugosi, 2007).

Despite the conceptual formulation of co-creation in process models (Barrutia and Gilsanz, 2013; Payne et al., 2008), actual customer co-creation may involve different approaches when it comes to the integration of resources (Payne et al., 2008). Co-creation is not a homogeneous process, but rather one where individuals can become involved in different ways (McColl-Kennedy et al., 2012; McColl-Kennedy, Vargo, Dagger and Sweeney, 2009). These varying approaches have been explored in a qualitative study of cancer patients where a number of co-creation styles emerged including the team manager, isolate controller, partner, spiritualist, adaptive realist and passive compliant (McColl-Kennedy et al., 2009). These co-creation styles were further refined in McColl-Kennedy et al. (2012) to team management, pragmatic adapting, insular controlling, partnering and passive compliance. These co-creation styles represent co-creation activities (behavioural and cognitive) employed by patients in co-creating their experience of cancer treatment (McColl-Kennedy et al., 2009). For
example, team management involved the assembling and directing of a support ‘team’ of doctors, friends, family, support organisations and online communities/forums, while the passive compliance style relied exclusively on the adherence to the instructions of the doctor (McColl-Kennedy et al., 2012). The various co-creation styles related to the quality of the patient’s life which highlights the importance of understanding the customer views on co-creation (McColl-Kennedy et al., 2012).

McColl-Kennedy et al. (2012) suggest that the S-D Logic perspective of the customer requires further understanding of the customer roles in specific service contexts. The reason for this is grounded in the proposition that customers phenomenologically determine the value in service (McColl-Kennedy et al., 2012). The necessity to understand customer roles in specific service contexts has also been highlighted by Moeller et al. (2013) who have conceptualised value-creation customer roles based on role theory (Biddle, 1986). Four dimensions were used to define roles: customer collaboration activities with the service provider, abilities, motivation, and challenges (Moeller et al., 2013). Five roles emerged in the analysis, which were linked to three types of service offerings: (i) configuration offerings where the customer configures the offering through providing customising inputs; (ii) solution offerings where customers solve problems through collaboration with the provider; and (iii) network offerings such as customer networking services. The customer roles pertaining to configuration offerings include the self-reliant customiser who customises the service through little contact with provider and is not economically driven, and the bargain-hunting independent who is willing to contribute to service production independently of the service provider and is driven by economic benefits (Moeller et al., 2013). Solution offerings are characterised by the customer value creating roles of comprehensive help-seeker who finds contribution to service challenging so is willing to co-operate with the
service provider or other sources in enhancing their abilities, and engaged problem
solver who sees the service provider as the principle problem-solver and is willing to
collaborate. Network offerings were linked to the customer role of a tech-savvy
networker who is driven by hedonic motivation to interact with other customers
(Moeller et al., 2013).

It is noticeable that Moeller et al.’s (2013) classification of co-creation roles does
include an overlap with co-production activities, previously identified in the discussion
of co-production and co-creation in Section 3.2.1. Even though the overlap of the
customer roles of co-producer and co-creator of value is due to the simultaneous
provision and consumption of some services, a distinction is necessary (Grönroos,
2008). The co-producer role takes place during service provision (Roberts et al., 2013),
when the customer gets involved in the production process by the service company on
its terms, and performs scripts designed by the organisation (Prahalad and Ramaswamy,
2003).

The various customer roles in service, from a partial employee and co-creator of value
view, discussed in this section, are summarised in Table 3.1 below. A careful
examination of Table 3.1 reveals that customer service roles have been predominantly
conceptualised from a service provider’s point of view and have been supported by little
empirical study, which is indicated as an avenue for further research (Lusch et al.,
2010). Despite the recognition of the research necessity to understand the customer’s
role in co-creation (Hilton et al., 2013; Lusch et al., 2010), with few exceptions (see for
example, McColl-Kennedy et al., 2012; Guiry, 1992), there is a dearth of empirical
research of the customer perspective on their roles in various service contexts (McColl-
Kennedy et al., 2009).
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<td>Role theory perspective; include activities, abilities, motivation and challenges in undertaking co-creation role</td>
<td>Empirical Customer</td>
<td>Value-creation roles: Bargain-hunting independent Comprehensive help-seeker Self-reliant customiser Technology-savvy networker Engaged problem solver</td>
</tr>
</tbody>
</table>

Source: The Author.
3.5.3 Service Failure

Although SSTs may empower customers, they often suffer from malfunctions, technical and human errors (Zhu et al., 2013). SSTs introduce the concept of customer failure whereby the customer fails to use the SST (Forbes, 2008; Meuter et al., 2000). Hence, as SST failures may be due to customer errors, customer involvement in service recovery has started gaining research interest (see for example, Zhu et al., 2013; Dong, Evans and Zou, 2008). The S-D Logic has also led to a questioning of the customer role during service failure episodes which can also be a part of the service process (Dong et al., 2008). The customers’ role has mostly been limited to evaluating the company recovery efforts (Zhu et al., 2013) but this fails to acknowledge the potential for customer involvement in the actual recovery of the service failure. The customer service failure role of evaluating the service recovery efforts of the company is relevant to the evaluation stage of the co-production model examined here.

Although the customer plays an active production role during SST encounters (Meuter et al., 2000), this production role has not been recognised during service failure episodes (Zhu et al., 2013; Dong et al., 2008). Furthermore, the SST context introduces another mode of service failure, that of customer failure to complete the service successfully (Robertson, 2012; Meuter et al., 2000). With the exception of Zhu et al. (2013), research attention has been predominantly on the service company’s responses to service failures; thus, suggesting that only service providers have an active role to play during service recovery, but not customers (Dong et al., 2008). The customer activities relating to the co-production of service recovery include voicing of complaints (Robertson and Shaw, 2009), providing inputs towards joint service recovery with the service provider (Dong et al., 2008) and self-recovery (Zhu et al., 2013).
Robertson and Shaw (2009) have addressed the likelihood of consumers to voice complaints in an SST context, termed likelihood of voice. They define six variables and have tested how they influence the likelihood of voice: (i) likelihood of voice success, (ii) ease of voice, (iii) causal locus, (iv) SST self-efficacy, (v) SST powerlessness and (vi) need to vent. They found *ease of voice* to be the strongest predictor of consumers’ likelihood to voice their complaints. As previous research has shown that customers tend to complain more in an SST environment (Forbes, 2008; Forbes *et al*., 2005; Holloway and Beatty, 2003; Meuter *et al*., 2000), the authors refer to the problem of illegitimate complaints which can be further facilitated if complaining procedures are made extremely easy. Voicing of complaints in an SST context may be eased by applying service guarantees (Robertson, 2012). These may include fixing the problem, providing a choice of compensation, providing a personal response, compensating if the problem cannot be fixed and providing an easy means for guarantee invocation (Robertson, 2012).

The second form of customer participation in the service recovery includes the customer co-operation with the service provider (Dong *et al*., 2008). The joint service recovery involves the customer providing information about the service failure and then following instruction by the service provider on how to fix the problem (Dong *et al*., 2008). SST customers may also be able to recover failures themselves and avoid contacting an employee (Dong *et al*., 2008). In an SST context, customers may repeat a transaction or try an alternative route to solve the problem (Zhu *et al*., 2013). Customers were found to be more likely to attempt self-recovery if they expected to be able to recover the service (Zhu *et al*., 2013). The customer recovery expectancy was affected positively by internal attribution of the fault for the failure, perceived control over the
SST and SST interactivity, but negatively affected by easily available information about the competition (Zhu et al., 2013).

The third form of customer participation in SST recovery is self-recovery (Dong et al., 2008). When SST customers are able to recover failures themselves and avoid contacting an employee, this may increase their satisfaction with the service recovery (Dong et al., 2008). Empirical evidence from Dong et al.’s (2008) scenario-based research confirms that customer participation in service recovery has a positive effect on satisfaction and on the customer role clarity for subsequent service encounters. Empirical evidence from actual SST failures and the roles customers undertake has been suggested as an avenue for further research (Zhu et al., 2013; Dong et al., 2008). The research of Forbes et al. (2005) and Forbes (2008) provides some evidence on the possible customer responses during SST failures, including contacting the company, re-purchasing or doing nothing. It is obvious that these customer responses do not include active involvement in solving the problem which caused the service failure (Zhu et al., 2013). The rationale behind customer responses to service failure also requires further understanding (Zhu et al., 2013; Forbes, 2008).

The three stages of customer co-production, as identified in the review of the co-production literature, are decision-making, activation and evaluation of the experience. The decision-making stage has been adapted to the SST context through a review of research on factors and motivations affecting customer decisions to use SSTs. During the second stage, activation, customers undertake production activities which were also conceptualised in terms of customer roles (see for example, Moeller et al., 2013; Chervonnaya, 2003). Following the review of roles which customers may undertake, the
following section examines the third stage of the SST service co-production process, customer evaluations of their SST usage.

### 3.6 Evaluation of SST Usage

As a growing part of the tourism experience, it is important to understand how customers evaluate SST usage (Neuhofer et al., 2013). The traditional approach to the study of customer service evaluation has been guided by measures of service quality and satisfaction (Fisk, Brown and Bitner, 1993; Westbrook and Oliver, 1991). Service quality measures the customer evaluations of the service characteristics (Zeithaml, Parasuraman and Malhotra, 2002) and satisfaction represents an evaluation of customer expectations against outcomes from the service (Oliver, 1980). Although the measures of quality and satisfaction have been established in service research, the phenomenological customer perspective of value is gaining in importance as it provides more insights into customer consumption (Helkkula et al., 2012). Value is defined as the evaluation of the trade-off between service benefits and sacrifices towards obtaining these benefits (Barrutia and Gilsanz, 2013). There are established connections between the concepts of quality, value and satisfaction (Narteh, 2015; Barrutia and Gilsanz, 2013; Parasuraman and Grewal, 2000) and these are examined in the following sections as a foundation to understanding customer evaluations of their SST usage.

#### 3.6.1 Customer Satisfaction

With the exception of Hilton et al. (2013), who has explored the customer perspective on customer value in SST service, SST research has focused on outcomes, such as satisfaction (Narteh, 2015; Reinders et al., 2015; Wang, 2012; Weijters et al., 2007), intentions for repeat usage (Reinders et al., 2008), word-of-mouth (Reinders et al., 2008) and commitment (Beatson et al., 2007). Satisfaction with service in general has
proven to be an effective predictor of repeat usage (Fisk et al., 1993), which is the reason for the focus of SST research on the behavioural outcomes and antecedents of customer satisfaction with SSTs (see for example, Wang, 2012; Beatson et al., 2007; Weijters et al., 2007). The positive correlation between satisfaction and continued usage intentions of SSTs in a retail context is confirmed by Wang (2012) and Weijters et al. (2007). Furthermore, satisfaction affects the behavioural intention variables of word-of-mouth (Groth, 2005) and commitment (Beatson et al., 2007).

Determinants of customer satisfaction with SSTs include the perceptions of control, enjoyment and convenience (Narteh, 2015; Wang, 2012), reliability, responsiveness (Narteh, 2015) and perceived waiting time (Weijters et al., 2007). Customers are satisfied with SSTs when they solve an intense need or perform better than the alternative in saving time, money and customer effort (Meuter et al., 2000). The perceptions of speed and accuracy of SST transactions have also been found to affect evaluations of satisfaction in Collier and Kimes (2013). Furthermore, Weijters et al. (2007) suggest that the outcomes from SST usage on one occasion may influence the attitude and consumer behaviour in subsequent SST encounters. Therefore, the outcomes from SST encounters accumulate and form the previous experience construct which affects customer beliefs, attitudes and intentions towards future SST usage (Wang et al., 2012; Weijters et al., 2007). The Mills and Morris (1986, p.730) customer participation model emphasises the cyclical nature of customer role performances, where the outcomes from undertaking a production role feed back into the role readiness for subsequent service encounters.

Therefore, the evaluation of satisfaction may be affected by determinants of customer performance, such as customer role readiness (Mills and Morris, 1986), customer
expertise (Reinders et al., 2015) and technology anxiety (Zhao et al., 2008). The importance of the quality of customer inputs is further emphasised in service contexts where customers come in contact or share resources, as the underperformance of a customer may affect the quality of the service received by other customers (Bateson, 1985). The roles that customers undertake were discussed in the previous section as impacting customer satisfaction with the experience (McColl-Kennedy et al., 2012; Guiry, 1992). The technology anxiety (TA) of library kiosk users has been found to affect not only their usage intentions, but also the customer evaluations of the service (Zhao et al., 2008). Customers with higher TA were less satisfied with the SST service (Meuter et al., 2003; Zhao et al., 2008). Liu (2012) has also found that TA affects satisfaction directly and through trust in technology. Customer expertise with technology and services was found to have a counter intuitive relationship with satisfaction in Reinders et al. (2015). Contrary to expectations, customers with high service and technology expertise report less favourable experiences with SSTs than customers who are experts only in the service or in technology (Reinders et al., 2015).

Some SST service encounters may also include service failure and recovery experiences Meuter et al., 2000) which may influence the overall satisfaction with SSTs (Meuter et al., 2000). SST service recovery has been studied in terms of the effectiveness of service company recovery strategies (see for example, Forbes, 2008; Forbes et al., 2005; Mattila, Cho and Ro, 2011). Service failure and recovery are focused on as negative events, so the effectiveness of recovery efforts has been measured by their ability to reduce negative experiences. Recovery efforts may reduce negative attributions to the technology, company and employees (Dabholkar and Spaid, 2012), improve customer service fairness perceptions (Mattila et al., 2011), satisfaction (Dabholkar and Spaid, 2012, Forbes, 2008, Forbes et al., 2005) and intentions for re-
patronage of the service company (Forbes, 2008; Forbes et al., 2005; Holloway and Beatty, 2003). Online recovery strategies may include a refund, an apology, replacement either in the original channel or at the offline store, and a strategy of doing nothing (Forbes et al., 2005). The strategies which appear most effective in terms of customer satisfaction and continued patronage of the service provider prove to be product replacement and refund (Forbes et al., 2005). In an online catering order context, Mattila et al. (2011) have examined how the recovery strategies of apology and compensation offered in person or over an email affected customer fairness perceptions. The research finds that when a failure occurred during an online SST encounter, a compensation or apology offered in the same delivery channel is more effective than when offered by a contact-employee. However, when the SST failure was very severe, an employee apology is necessary to restore the relationship with the customer (Mattila et al., 2011).

In the case of on-site SST failure, the most likely response was that both the company and the customer did nothing to recover the failure, or the customer re-purchased (Forbes, 2008). Both of these strategies are rated as least favourable in terms of customer satisfaction and repeat purchase intentions (Forbes, 2008). The strategy which is rated highest in terms of customer satisfaction emerges as being managerial intervention unprompted by the customer, where the issue got resolved or the customer received a discount (Forbes, 2008). The on-site kiosk failure strategies of immediate problem-resolution and employee assistance have been examined by Dabholkar and Spaid (2012). When an immediate problem resolution was provided during the service encounter, rather than afterwards, the customer was more satisfied and had less negative attributions to the company (Dabholkar and Spaid, 2012). For on-site SST options, a
less crowded environment around the technology was found to contribute towards better evaluations of the service recovery by the customer (Dabholkar and Spaid, 2012).

In addition to customer satisfaction, the measure of customer perceptions of service quality has attracted research attention and is examined in the following section.

### 3.6.2 Service Quality

The impact of technology on service quality and satisfaction has been a main theme in SST research (Bitner et al., 2000; Meuter et al., 2000; Dabholkar, 1996). Parasuraman, Zeithaml and Berry (1988) designed an instrument measuring perceived service quality dimensions, called SERVQUAL. The main dimensions of service quality which emerged from the research comprise tangibles, reliability, responsiveness, assurance and empathy (Parasuraman, Zeithaml and Berry, 1988). With the rise of SSTs and the internet, Zeithaml et al. (2002) have drawn attention to the importance of understanding how customers perceive and evaluate online services in order to be able to deliver superior experiences. They define e-Service Quality (e-SQ) as ‘the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery of products and services’ (Zeithaml et al., 2002, p.363).

Building on SERVQUAL, Zeithaml, Parasuraman and Malhotra (2000) have developed a scale for measuring e-service quality named e-SERVQUAL. The four dimensions of e-SERVQUAL comprise efficiency, reliability, fulfilment and privacy (Zeithaml et al., 2000). These dimensions are further sub-divided into access, ease of navigation, efficiency, flexibility, reliability, customisation/personalisation, security/privacy, responsiveness, assurance/trust, site aesthetics and price knowledge (Zeithaml et al., 2000). Wolfinbarger and Gilly (2003) have similarly conducted a study with the aim of producing a scale for measuring electronic, retail service quality, called eTailQ.
encompasses the whole service experience in one scale which includes four main dimensions which echo those of Zeithaml et al. (2000), namely fulfilment/reliability, website design, privacy/security and customer service. Similarly, Narteh (2015) found that the SST quality dimensions of convenience, reliability, ease of use, responsiveness and fulfilment impact on customer satisfaction with ATMs.

A further study to refine the e-SERVQUAL instrument by Parasuraman, Zeithaml and Malhotra (2005) has introduced two scales: e-S-QUAL (measuring electronic service quality and e-RecS-QUAL (measuring electronic service recovery quality). The first scale comprises four dimensions: efficiency, fulfilment, system availability and privacy. The second scale measures the quality of the recovery service provided along three dimensions: responsiveness, compensation and contact (Parasuraman et al., 2005). Parasuraman et al. (2005) point to a limitation of the research due to the small sample which experienced service recovery, so the results of the eRecS-QUAL should be treated only as a preliminary scale. There has been little agreement established on the measurement of e-service quality as concluded from the literature review of Stiakakis and Georgiadis (2009).

SST quality has been researched in terms of its effect on satisfaction and usage intentions (Makarem et al., 2009; Shamdasani, Mukherjee and Malhotra 2008; Zeithaml et al., 2002) similar to traditional service quality (Saha and Theingi, 2009). Shamdasani et al. (2008) have proposed a conceptual model of antecedents and consequences of service quality in an internet banking context. The results from the empirical testing of the model revealed that the control variable has the strongest influence on the perception of service quality out of the five proposed antecedents (speed of service, ease of use, reliability, enjoyment and control). Similarly, Liu (2012) and Johnson, Bardhi
and Dunn (2008) found that controllability leads to higher satisfaction. However, Shamdasani et al. (2008) did not prove satisfaction to be the main predictor of intentions for continued use, neither did service quality directly. The construct of perceived value, which is determined by service quality and perceived risk, had the strongest correlation with intentions for continued interaction (Shamdasani et al., 2008). Service outcomes such as satisfaction and quality have also been found to relate to customer perceptions of service fairness (Chiu, Lin, Sun and Hsu, 2009; Clark, Adjei and Yancey, 2009; Carr, 2007; Sindhav, Holland, Risch Rodie, Adidam and Pol, 2006), examined in the following section.

3.6.3 Service Fairness

Service fairness is defined by Seiders and Berry (1998, p.9) as ‘customer’s perception of the degree of justice in a service firm’s behaviour’. There are three main dimensions of justice or service fairness as appropriate in services settings: distributive justice, procedural justice and interactional justice (Clark et al., 2009; Carr, 2007; Sindhav et al., 2006). Distributive justice refers to the outcome of a decision (Seiders and Berry, 1998) and, in a service context, the extent to which consumers perceive that their input is fair when compared with the final service output (Chiu et al., 2009). A customer in a restaurant experiences distributive justice if the meal and service correspond to the price paid (Seiders and Berry, 1998). Procedural justice refers to the perceived fairness of the transactions and procedures which lead to the service outcome (Chiu et al., 2009; Seiders and Berry, 1998). If the restaurant customer was left with the perception that the service in the restaurant was efficient, this means that he experienced procedural justice (Seiders and Berry, 1998). Interactional justice is part of procedural justice, and it refers to the extent to which customers feel that they were treated well by the company employees throughout the service process (Chiu et al., 2009; Seiders and Berry, 1998).
It reflects the relationship between customer and service provider, including concepts such as friendliness, honesty, bias, expression of interest, politeness and sensitivity (Teo and Lim, 2001).

Customers believe that they should be treated fairly by service providers at all times, so they do not react to such treatment (Seiders and Berry, 1998). It is when customer standards of fairness are in conflict with experiences of the service that strong consumer reactions may be triggered (Seiders and Berry, 1998). Service unfairness surfaces when customers feel vulnerable and perceive the service situation as unfair (Seiders and Berry, 1998). The perceptions of unfairness are intensified if the outcome from the service is severely negative and the event is recurrent and perceived as controllable by the service provider (Seiders and Berry, 1998). For example, if a customer inserts their last coins for a can of drink at a vending machine and the money is swallowed but no drink is dispensed, then the customer is likely to experience feelings of unfairness. If on another occasion, they attempt to buy a drink from the vending machine and the same thing happens, they are likely to be more angered because apparently the machine is not being serviced regularly. The possible responses to unfair service can include retaliation and deterrence, such as attempts to restore the justice or switching the service provider (Seiders and Berry, 1988). Customers can go to lengths to restore the fairness in a service situation; some examples include criticising the company on the internet, complaining to a regulatory agency or even a lawsuit (Seiders and Berry, 1998).

3.6.4 Customer Value

Whilst satisfaction has been proven to be a good predictor of customer behaviour in an SST context (see for example, Wang, 2012; Beatson et al., 2007), customer co-creation of value ‘should incorporate a deep understanding of customer experiences and
processes’ (Payne et al., 2008, p.89). Since the recognition of the experiential dimension of consumption by Holbrook and Hirschman (1982), service research has leveraged the understanding of subjective customer experiences in marketing (see for example, Helkkula and Kelleher, 2010; Thompson, Locander and Pollio, 1989). S-D Logic’s tenth fundamental premise is that ‘value is always uniquely and phenomenologically determined by the beneficiary’ (Vargo and Lusch, 2008, p.7). This premise emphasises the nature of value determination as being rooted in customer experiences, meanings and contexts (Vargo and Lusch, 2008; Arnould, 2006). Concepts such as value-in-use (Vargo and Lusch, 2004) and value-in-experience (Heinonen et al., 2013) explicate the value from service as being intertwined with the consumption experience (Heinonen et al., 2010). The focus is shifting, therefore, from measuring rational evaluation outcomes to the phenomenological formation of value with the customer (Helkkula and Kelleher, 2010). This aspect of S-D Logic draws on consumer culture theory (Arnould and Thompson, 2005) which emphasises the experiential aspects of consumption (Arnould, 2006).

The value in service is negotiated through a hermeneutical customer process where previous experience, imaginary experience, social context and other life events are contributory factors (Helkkula and Kelleher, 2010). Customer experiences and value perceptions are intertwined, where negative experiences have been found to relate to negative perceived customer value, while positive experiences resulted in positive perceived value (Helkkula and Kelleher, 2010). Furthermore, the value determination is not a definitive, end-outcome evaluation, but rather a back and forth process of value re-negotiation (Helkkula et al., 2012). For example, a customer getting a new hairstyle may be initially dubious if the hair cut was good value for money, but after receiving positive feedback from friends may re-negotiate the experience value (Helkkula et al.,
To give another example, a customer obtaining a service through an SST may evaluate it in comparison to the personal service mode (Hilton and Hughes, 2013). Furthermore, the value negotiation takes place in a social network frame where customers construct their evaluations in reference to other customers’ value perceptions (Helkkula et al., 2012). Social identities may also play a role in customer experience evaluation (Champniss et al., 2015); when service consumption may reinforce a customer’s identity or a customer may attain a desired social identity, this will create value for them (Champniss et al., 2015).

From an S-D Logic perspective on value co-creation, Barrutia and Gilsanz (2013) propose that customer value is determined by customer resources such as customer competency, social competency and innovativeness and the customer perceptions of the service provider resources, including efficiency, system availability, design, information, privacy, enjoyment and outcome quality. The findings suggest that both resources have a bearing on the customer determination of value, but e-SERVQUAL perceptions have a stronger impact on the value construct (Barrutia and Gilsanz, 2013). Further research is suggested in order to determine if customer resources may have a bearing on the perceptions of the quality of service provider resources (Barrutia and Gilsanz, 2013).

Barrutia and Gilsanz (2013) measure value in the dimensions of convenience, control and value for money. Hilton and Hughes (2013) suggest that SST value should not be defined only in terms of benefits achieved, but also customer feelings and perceptions. Hence an obvious gap in the SST research literature appears to be the lack of focus on customer experiences in terms of symbols, meanings and emotions which represent value for the customer (Hilton and Hughes, 2013). Hilton et al. (2013) applied the S-D
Logic to explore the customer perspective on resources and value in SSTs. The findings suggest that SST experiences can be both value-enhancing and value-destroying; it is therefore of importance for future research to understand the service contexts which enhance or destroy customer perceptions of value in SSTs (Hilton et al., 2013). From the review in this section, it may be suggested that perceptions of value may be influenced by a number of variables including customer resources (Barrutia and Gilsanz, 2013), service quality perceptions (Barrutia and Gilsanz, 2013; Makarem et al., 2009), service benefits (Meuter et al., 2000) and fairness perceptions (Mattilla et al., 2011; Chiu et al., 2009).

The literature review so far identified concepts and research findings relating to the study of customer SST experiences. A number of research gaps emerged in the discussion of the literature, which are reviewed in the following section.

**3.7 Gaps in the Research of Customer SST Usage**

As demonstrated throughout the review of literature relating to SST customer co-production and value co-creation, there are numerous research gaps which require further attention. The literature has been reviewed in the order of the three stages of co-production: decision-making, SST usage activation and evaluation. The literature pertaining to decision-making included SST adoption factors research. The stage of activation presented the roles customers undertake during co-production (production) and co-creation (consumption). Finally, literature on SST customer satisfaction, e-service quality, fairness and value perceptions was reviewed under the SST usage evaluation stage.
The motivational theories dominating SST adoption research are TAM and the DOI based adoption model of Bitner et al. (2002) (Patsiotis et al., 2013). Even so, other theories of motivation, such as the self-determination theory (SDT), are being researched and proven for their contribution to understanding SST behaviour (Leung and Matanda, 2013; Oh et al., 2013). The findings relating to the influence of various SST adoption factors on customer behaviours and decisions have displayed inconsistencies which suggest the necessity for further research to establish possible connections and interdependencies between them (Lin and Chang, 2011). SST adoption research to date has been largely based on quantitative methodologies (Lee et al., 2010; Meuter et al., 2005; Walker and Johnson, 2006), which has been recognised by Baron et al. (2006) as a shortcoming. There is room for qualitative research which may uncover adoption factors and relations between them which have been overlooked or not included in tested models to date (Baron et al. 2006; Beatson et al., 2008). The quantitative approach, while providing accurate statistical results, may fail to fully capture the ‘subtleties of consumer behaviours’ (Lin and Chang, 2011, p.439). For example, the employment of a qualitative methodology has previously proven useful in discovering situational factors affecting supermarket self-service check-out usage in a study by Wang et al. (2012).

Another shortcoming of SST adoption research constitutes the wide usage of student samples, on the grounds that young people tend to be the major adopters of new technologies, and they present a ready available sample. However, this is recognised as a limitation to generalising the findings to other user groups (see for example, Cunningham et al., 2005; Dabholkar and Bagozzi, 2002; Kim et al., 2009; Oyedele and Simpson, 2007). Furthermore, web surveys are gaining popularity in SST adoption research because of their wide reach, fast response and low cost, but with the limitation
that customers who have no access to the internet are automatically excluded from participation (Lee *et al.*, 2010; Lu and Su, 2009; Forsythe and Shi, 2002; Meuter *et al.*, 2000).

The review of customer service roles provided a number of perspectives on the role of customers during service production and consumption. However, customer service roles have been predominantly conceptualised from a service provider perspective and have been supported by little empirical evidence (Lusch *et al.*, 2010). Service management literature conceptualises customer roles as general representations of customer activities during services (see for example, Moeller *et al.*, 2013; Chervonnaya, 2003). There is only limited research attempting to capture subjective customer meanings and perceptions of their roles in specific service contexts (see for example, McColl-Kennedy *et al.*, 2012). The understanding of customer meanings and perceptions has been called for because it determines the creation of value in consumption experiences (Helkkula *et al.*, 2012). The conceptualisation of customers as co-producers and co-creators of value (Vargo and Lusch, 2008) is rather abstract as customers may adopt various styles when co-creating experiences (McColl-Kennedy *et al.* 2012). Hence, there is a necessity to explore how customer roles are undertaken in various service contexts (McColl-Kennedy *et al.*, 2009).

Furthermore, customer roles have been researched in light of the service encounter, but service failure episodes often represent a part of some service encounters. The customer role in service failure situations has largely been represented as a passive one, where the service provider is the active party in recovering the failure (Dong *et al.*, 2008). The active customer role during SST encounters, coupled with the often non-employee
service environment, calls for examining the role of the customer as an active participant in SST failure episodes (Zhu et al., 2013; Dong et al., 2008).

During the last stage of the co-production process, the usage is evaluated by the customer (Hilton et al., 2013). Although the measures of quality and satisfaction have been established in service research as providing accurate understanding of the outcomes for the customer, the processes of customer value formation provide a more in-depth understanding (Helkkula et al., 2012). Concepts such as value-in-use (Vargo and Lusch, 2004) and value-in-experience (Heinonen et al., 2013) highlight the subjective and process nature of value formation (Heinonen et al., 2010). Therefore, a research gap arises in understanding of the processes of value formation for the customer (Helkkula and Kelleher, 2010). Hence, there is a necessity to understand customer SST experiences in terms of symbols, meanings and emotions which represent value for the customer (Hilton and Hughes, 2013).

3.8 Conceptual Model of SST Usage

As discussed in section 3.2.1, the S-D Logic in marketing suggests that customer service experiences are the result of a process of exchange of resources between the customer and stakeholders in the value-creation system (Lusch et al., 2010). The value co-created is phenomenologically determined by the beneficiary, which in this case is the customer (Vargo and Lusch, 2008). This formulation, provided by the S-D Logic, has been found to provide valuable insights into how experience value is co-created and evaluated by the customer and not just the customer decisions to try or continue using the SST option (see for example, Barrutia and Gilsand, 2013; Hilton et al., 2013).
In Chapter Two, it was identified that the research of SST customer behaviour, purely as a technology adoption process, presents limitations to fully understanding the customer SST experience (Hilton and Hughes, 2012). The limitation of this strand of research is in the notion that during SST service, customers co-produce the core offering and this affects the experience value realised in the consumption stage (Hilton et al., 2013). Therefore, the examination of customer SST usage as a co-production process would provide a more comprehensive understanding of customer SST experiences (Barrutia and Gilsand, 2013; Hilton and Hughes, 2012). Chapter Three has discussed relevant literature in formulating a conceptual model of customer SST co-production. Based on the constructs and concepts which emerged in the discussion of the literature in SST and service research, the conceptual model presented in Figure 3.5 has been developed by the author.

This model presents a synthesised visual map of the concepts relating to SST co-production. The conceptual model is based on a process of co-production (decision-making, activation and evaluation) as SST usage involves co-production as a compulsory basic element (Hilton et al., 2013).
The left-hand box represents the initial decision-making stage before the customer becomes actively involved in co-production (Etgar, 2008), and it depicts the customer’s cognitive processing of various factors in reaching a decision to engage in SST co-production. The cognitive processes may be understood by applying various motivational theories, such as TRA (Walker and Johnson, 2006; Dabholak and Bagozzi, 2002), DOI (Meuter et al., 2005; Bitner et al., 2002) and SDT (Leung and Matanda, 2013). The processes in the decision-making stage determine the activities and roles that
customers will undertake during the activation stage (Etgar, 2008; Mills and Morris, 1986).

The second stage of activation of SST usage is represented on the right of the model. During the activation stage, the customer undertakes co-production roles (Etgar, 2008). In the production stage of services, consumption of the service may take place simultaneously (Grönroos, 2008). Therefore, customer roles characteristic of the consumption stage may overlap with production roles, with the customer becoming both co-producer and co-creator of value (Grönroos, 2008). The simultaneous production and consumption of SST services is depicted in Figure 3.5 in intersection of the production and consumption Venn diagram.

The third stage of the co-production process is the evaluation of SST usage (Etgar, 2008), which is depicted on the bottom right of Figure 3.5. The roles which customers undertake in services have been empirically linked to the value and quality of the customer experiences (see for example, McColl- Kennedy et al., 2012; Bitner et al., 1997; Guiry, 1992). The evaluation of co-production experiences is a complex cognitive process (Etgar, 2008) which also has a bidirectional relationship with the decision-making stage (motivation, technology readiness, role clarity) (Mills and Morris, 1986). For example, aspects of the decision-making stage may affect the evaluation of experiences, such as technology anxiety (Zhao et al., 2008), and the value in the experience may form the motivation and role clarity for subsequent encounters (Hilton and Hughes, 2012; Etgar, 2008).
3.9 Conclusion

This chapter has outlined the theoretical foundations and conceptual model of this research. Chapter Two concluded that customer SST service co-production process requires research attention (Hilton et al., 2013). Following from Chapter Two, Chapter Three has given an overview of the S-D Logic in marketing as a viable theoretical perspective to study customer co-production of SST service (Barrutia and Gilsanz, 2013; Hilton and Hughes, 2013). A review of customer co-production process models (such as Guo et al., 2013; Mills and Morris, 1986) identifies that the common ground between these models represents the three stages of decision-making, activation and evaluation of SST usage. The remainder of the chapter reviewed research literature relevant to each of these co-production stages in an SST context. This review concludes with an overview of the gaps in the research of customer SST usage. Having identified the main concepts and research gaps in the customer SST literature, Chapter Four defines the research objectives of the present study and the research process employed.
Chapter 4 Research Methodology

4.1 Introduction

The following chapter presents the stages and justification of this PhD’s research process. The aim of this research is to explore customers’ perspectives on their usage and experiences of SSTs in the tourism sector. The chapter begins by providing the theoretical background and gaps in the SST research literature underpinning each of the research objectives. This is followed by a justification of the interpretivist approach and qualitative methodology employed in the present study in light of the nature of the research objectives. The chapter continues with a discussion of the data collection and analysis procedures during the two phases of research. The initial Stage One consisted of short qualitative interviews with 133 airport passengers, which aimed at gaining a broad perspective of customer usage of SSTs. Stage Two included 32 in-depth interviews with SST users and a projective sentence technique component, in order to explore further the issues which emerged in Stage One. Special attention is given to ethical considerations throughout the research process and the steps followed in the data analysis process. The chapter concludes with a discussion of the limitations of this research approach.

4.2 Research Aim

The purpose statement, or research aim, conveys the overall purpose of the research (Saunders, Lewis and Thornhill, 2009). Firstly, the research aim reflects the chosen
philosophical approach: positivist research would seek to test theory, while interpretivist research would aim to understand and explore processes and phenomena (Hussey and Hussey, 1997). Secondly, the research aim has to define the units of research and the topic of investigation (Hussey and Hussey, 1997).

The aim of this research emerged from the dearth of knowledge of the effects of ICTs on the conceptualisation and understanding of the tourism experience (Neuhofer et al., 2013; Gretzel and Jamal, 2009). SSTs, as a group of ICTs which allow customers to deliver self-service, have been permeating the tourism sector and demanding active customer participation (Kelly et al., 2013a). Therefore, the customer experiences with SSTs will affect the overall tourism experience (Quan and Wang, 2004). Customer experiences with SSTs themselves represent another research gap (Halstead and Richards, 2015; Hilton et al., 2013).

Thus, the research aim is also based on the dearth of research into the customer usage of SSTs (Gelderman et al., 2011; Meuter et al., 2005) and the limitations of the Technology Adoption Model (TAM) and Diffusion Of Innovations (DOI) Theory to provide further insights into SST customer behaviour (Eastlick et al., 2012; Baron et al., 2006). SST research has mainly focused on the influence of various factors on the customer decision to choose to interact with the SST option (Patsiotis et al., 2013). Although this knowledge is vital for the understanding of SST adoption by customers, SST usage represents a process whereby the customer co-produces the main service offering with the service provider (Hilton et al., 2013). Hence, the understanding of customer co-production may provide further insight into customer SST behaviour and the resulting experiences (Hilton et al., 2013).
Customer co-production in service delivery and co-creation of consumption experiences have been highlighted in service research and are part of the Service-Dominant (S-D) Logic in marketing (Vargo and Lusch, 2008). The customer perspective on their service roles has been identified as a research direction because of the vital role of customers in service delivery and determination of the service value (Lusch et al., 2010; Payne et al., 2008). In the context of SST co-production, where the customer plays a major part in the service delivery, the understanding of the customer perspective on co-production and co-creation has been suggested as important in providing managerial insights (see for example, Barrutia and Gilsanz, 2013; Hilton et al., 2013; Hilton and Hughes, 2013; Solomon et al., 1985). Furthermore, co-production has direct implications for value co-creation because customers’ expertise and skills in service delivery determine the value in the SST experience (Barrutia and Gilsanz, 2013). Therefore, the research aim of this PhD research is as follows:

*To explore customers’ perspectives on their usage and experiences of SSTs in the tourism sector.*

This statement clearly communicates the interpretivist approach of this research in terms of the research topic, namely customer usage and experiences of SSTs in tourism, and the units of research, being SST customers.

**4.3 Research Objectives**

The research aim is refined by the specification of research objectives or hypotheses (Creswell, 2009). Research hypotheses relate to quantitative research and research objectives to qualitative research (Saunders et al., 2009). Marshall and Rossman (2011) suggest that the qualitative objectives should be focused enough so that the research
does not appear unworthy, but at the same time should be kept broad to allow for flexibility and new discoveries. This section presents the three objectives of this research, justified by the corresponding gaps from the literature review.

4.3.1 Research Objective One: To investigate customers’ motivations for using SSTs in the tourism sector

The nature of customer SST usage is shaped by the customer decision-making stage (Roberts et al., 2013; Etgar, 2008). The customer motivation and influencing factors determine the customer engagement in co-production (Etgar, 2008) and the quality of customer experiences (Leung and Matanda, 2013; Deci and Ryan, 2012). Therefore, it is of importance to understand the decision-making stage in order to gain a full understanding of the customer experience of SST co-production (Etgar, 2008).

The literature review outlined that the current SST research has focused on the customer decision-making process in terms of reaching a decision to use an SST (Patsiotis et al., 2013). Reasons for customer decisions to use SSTs include cost savings (Meuter et al., 2003), convenience (Liljander et al., 2006; Dabholkar et al., 2003; Mauter et al., 2003), habit (Liljander et al., 2006), control and independence (Liljander et al., 2006; Dabholkar et al., 2003; Mauter et al., 2003), enjoyment (Curran and Meuter, 2007) and the lack of other options (Meuter et al., 2003). Although these reasons may provide some explanation of customer motivations, the customer needs, goals and values which motivate SST usage have received limited attention (Leund and Matanda, 2013; Wünderlich et al., 2013). The predominant focus has been on the functional benefits, which may not provide sufficient understanding of SST usage motivation as SSTs are being implemented in novel service environments (Cetto et al., 2015; Collier and Barnes, 2015). The customer perspective on their motivation to co-produce may also
include customer values, social influences and perceptions which need further exploration (Etgar, 2008). The customer co-creation desires may also be linked to customer imagery, feeling and emotion (Payne et al., 2008).

Towards understanding customer views on their SST co-production motivations, research needs to account for the multi-channel and multi-company nature of the contemporary service environment (Wang et al., 2012). In this environment, the customer is provided with, and has to make a choice between multiple service channels (Montoya-Weiss et al., 2004) or is channelled accordingly by the service provider (Neslin and Shankar, 2009; Hughes, 2006). In recent years, another service platform centred on mobile devices such as smart phones and tablets has rapidly entered the service market (comScore, 2015). The tourism industry has introduced a wide range of SSTs, with airlines in particular at the forefront of technological innovation (smart phone check-in being an example). The tourism context is therefore ideal for exploring customer SST usage in the context of a multitude of companies and channels.

4.3.2 Research Objective Two: To explore the customer experience of SSTs in the tourism sector

As the purpose statement of this research suggests, the focus of this thesis is the customer perspective on SST usage and experiences in the tourism context. The customer experiences with SSTs have been researched by measuring the consequences for the customer from SST usage (Wang et al., 2012; Weijters et al., 2007). Therefore, SST research has tested how SST usage affects customer satisfaction (Narteh, 2015; Weijters et al., 2007), quality perceptions (Barrutia and Gilsanz, 2013) and value (Hilton et al., 2013). Satisfaction with service is a proven predictor of repeat usage, which is the reason for SST researchers’ interest in the behavioural outcomes and
antecedents of customer satisfaction with SSTs (see for example, Narteh, 2015; Wang, 2012; Beatson et al., 2007; Weijters et al., 2007).

The intangible character of much of tourism service provision has attracted research into the tourism experience, but the development of ICTs requires further understanding of the technology-enhanced tourism experience aspect (Neuhofer et al., 2013; Gretzel and Jamal, 2009). Although satisfaction and quality perceptions are good traditional measures in marketing research (Fisk et al., 1992), customer value co-creation and experiences have been gaining attention as providing more comprehensive understanding of customer evaluations of service (Barrutia and Gilsanz, 2013; Heinonen et al., 2010; Helkkula and Kelleher, 2010). The research of customer co-creation during service requires the understanding of customer experiences in terms of cognitive, emotional and behavioural aspects (Payne et al., 2008). This suggestion expands the research focus from the customer evaluation of SST encounters to include customer perceptions, symbolisms, meanings and emotions (Hilton and Hughes, 2013).

The post-usage psychological outcomes for the customer from SST encounters are an under-researched area (Weijters et al., 2007). Therefore, the understanding of customer perceptions during SST encounters may require further research because of its importance in determining future usage and experiences with SSTs (Harrison et al., 2006). Anitsal and Schumann (2007) further emphasise the importance that customer perceptions may play during SST encounters. If customers perceive that their investments in time, effort and money are bigger than the benefits received during their SST encounter, they are unlikely to view it positively and remain loyal to the service company (Anitsal and Achumann, 2007). Therefore, Anitsal and Schuman (2007)
suggest that customer perceptions of the service encounter, and particularly their perceptions of fairness during SST encounters, deserve research attention.

With the exception of Hilton et al. (2013), who explore the customer perspective on value in SST experiences, customer SST experiences have not received comprehensive, qualitative research attention (Lin and Chang, 2011). The finding that SST experiences may be value-enhancing or value-destroying necessitates the understanding of the SST usage from a customer perspective (Hilton et al., 2013).

4.3.3 Research Objective Three: To examine the roles that customers undertake in SST encounters in the tourism sector

During the activation stage of SST co-production, customers undertake co-creation and co-production roles (Etgar, 2008; Payne et al., 2008) because of the overlap between production and consumption of the service by the customer (Grönroos, 2008). Insights into customer participation in service have been provided by the conceptualising of various general customer service roles (Bitner et al., 1997). These roles reflect customer inputs (Bitner et al., 1997), actions and skills (Chervonnya, 2003), service scripts (Parker and Ward, 2000) and co-creation styles (McColl-Kennedy et al., 2009).

Customer service roles have been predominantly conceptualised from a service providers’ point of view and have been supported by little empirical study, which has been identified as an avenue for further research (Namasivayam, 2003; Bateson, 2002). Despite the recognition of the necessity to understand the customer’s roles in service (Hilton et al., 2013; Lusch et al., 2010), with few exceptions (see for example, McColl-Kennedy et al., 2012), there is a dearth of empirical research of the customer perspective on their role in specific service contexts (McColl-Kennedy et al., 2009). McColl-Kennedy et al. (2012) have explored how cancer patients co-create in health
care services and uncovered a number of customer ‘styles of co-creation’. Therefore, customer roles require further understanding in specific service contexts (McColl-Kennedy et al., 2012). Hence, a gap prevails in terms of understanding customer subjective meanings and perceptions of their roles during SST service encounters (Hilton and Hughes, 2013).

Although the customer has been recognised as playing an active production role during SST encounters (Meuter et al., 2000), this role has not been transferred to the service recovery episodes (Zhu et al., 2013; Dong et al., 2008). The research attention has tended to focus on the service company’s responses to service failures; thus, suggesting that only service providers have a role to play during service recovery, but not customers (Dong et al., 2008). The predominant attention on the service provider role during SST failure/recovery episodes is in contrast with the active customer role propositions of the S-D Logic in services marketing and hence constitutes a research gap (Dong et al., 2008).

The three research objectives outlined refine the research aim of exploring the customer perspective on their SST usage and experiences in tourism, in terms of their motivations, experiences and roles. SST encounters have been studied predominantly from a positivist perspective (see for example, Lee et al., 2010; Meuter et al., 2005) which has been identified as a research gap since the customer experience, the social context and service settings can significantly change the usage patterns and adoption of SSTs (Wang et al., 2012; Baron et al., 2006; Walker and Johnson, 2006). Therefore, there is room for qualitative research to provide more holistic and in-depth understanding of customer behaviour (Lin and Chang, 2011; Baron et al., 2006; Beatson
et al., 2007). Based on the aim and objectives of this research, the following section locates the present study on the research paradigm spectrum.

4.4 The Research Paradigm

A paradigm is defined as ‘a basic set of beliefs that guide action’ (Denzin and Lincoln, 2005, p.183). A paradigm is constructed of four main terms: axiology (the moral values of the researcher); epistemology (refers to the relationship between the researcher and the world); ontology (the nature of reality and the place of the human being in the world) and methodology (the means for acquiring knowledge about the world) (Denzin and Lincoln, 2005). Academic disciplines are traditionally guided by certain paradigms, which determine the acceptable methods for acquiring and evaluating new knowledge (Saunders et al., 2009).

The two main research paradigms are positivism and interpretivism and they occupy two extremes of a continuum (Hussey and Hussey, 1997). Historically, the positivist paradigm was born before the interpretivist paradigm, and it is rooted in the natural sciences, such as biology, botany and physics (Hussey and Hussey, 1997). This paradigm states that the world is objective and organised, and external to the researcher. Knowledge is generated by collecting objective facts and uncovering causal relationships between variables which obey strict, generalisable laws (Saunders et al., 2009).

With the development of the social sciences, the positivist paradigm has been criticised as being inadequate to explain some complex social phenomena as people, unlike objects, behave differently in various contexts (Denzin and Lincoln, 2005; Hussey and Hussey, 1997). Interpretivism is the collective umbrella for research philosophies which
consider the central role of the researcher in the research process and the acceptance of subjective meaning as credible knowledge (Carson et al., 2001). Interpretivism encompasses the theoretical traditions of numerous philosophies, such as constructivism, humanism, hermeneutics, natural inquiry and phenomenology (Carson et al., 2001). Researching people and phenomena in an ever-changing, multi-faceted social world cannot be adequately done using generalisable statistical measures (Denzin and Lincoln, 2005). The social world is complicated and subjective, constructed of multiple realities (Denzin and Lincoln, 2005). Subjective meanings and context specific social phenomena constitute credible data and the researcher is an integral part of the knowledge construction process (Saunders et al., 2009).

4.4.1 Research Paradigms and SST Research

The various academic disciplines are traditionally associated with specific paradigms and research traditions (Saunders et al., 2009). For example, the natural sciences, by default, adopt a positivist world view and test natural laws and causalities (Denzin and Lincoln, 2005). Therefore, the scientific discipline may determine the applicability of a paradigm choice. As identified in the literature review, the theoretical location of this research encompasses the disciplines of service management and marketing, and tourism. The main literature domain is SSTs research, a strand of service marketing and management (Bitner et al., 2002). The SST research draws on theory from marketing (Hilton and Hughes, 2013), information systems adoption (Gefen et al., 2003), innovation adoption (Meuter et al., 2005) and consumer behaviour (Bitner et al., 2002). Furthermore, SST research partly overlaps with multi-channel service research (Wang et al., 2012) and the customer role in service delivery (Hilton and Hughes, 2013). The second academic discipline is tourism, and more specifically the tourism experience
relating to ICT developments (Gretzel and Jamal, 2009). The overarching academic literature domains informing this research are presented visually in Figure 4.1 below.

Figure 4.1 Academic Disciplines Relating to this Research

Tourism as a discipline draws on multiple scientific disciplines and research perspectives (Frochot and Batat, 2013). Specifically, the tourism experience may be researched both from a positivist world view, as influenced by various factors (Quinlan-Cutler and Carmichael, 2010), or from an interpretivist perspective, as a subjective interpretation (Uriely, 2005). As discussed in Chapter Two, Section 2.2, both the positivist and interpretivist perspective have contributed towards the understanding of the tourism experience and are considered viable research paradigms.

The service management and marketing research was dominated by the positivist paradigm until the 1980s, but researchers have since recognised the advantages of adopting the interpretivist approach in understanding complex processes and interactions (Tronvoll, Brown, Gremler and Edvardsson, 2011). Therefore, service management and marketing research may adopt either a positivist or interpretivist
ontological perspective depending on the research aim (Tronvoll et al., 2011). Epistemologically, service management and marketing studies may be considered as being snapshot/static or process/dynamic, depending on the timescale, i.e. taking a cross-section of the phenomenon at a given time or following its dynamics over a period of time (Tronvoll et al., 2011). Therefore, service management and marketing research does not impose limitations on the adoption of either a positivist or an interpretivist paradigm.

The adoption of an interpretivist perspective means the recognition that consumer behaviour is unpredictable and often irrational (Goulding, 1999); therefore, the understanding of consumer behaviour is subjective and context-specific (Goulding, 2002). As already identified, the phenomenon of SST adoption and usage has been studied predominantly from a positivist perspective (see for example, Patsiotis et al., 2013; Meuter et al., 2005). Social context and service settings can, however, significantly change the usage patterns and the factors which contribute to SST usage, suggesting room for an alternative approach (Baron et al., 2006; Walker and Johnson, 2006). Following the above discussion, the chosen philosophical underpinning of this research is interpretivism, outlined below.

4.4.2 Interpretivist Approach

The primary focus of this research is an exploration of customer usage and experiences of SSTs. Research to date has focused on uncovering causal relationships between SST adoption factors and explaining why customers use these technologies (see for example, Lin and Chang, 2011; Meuter et al., 2003). Considerably less attention has been given to how customers interpret value and experiences in SST usage, which may be as important in understanding their decisions regarding SST adoption (Hilton et al., 2013).
The search for understanding of subjective perspectives and meaning suggests the adoption of an interpretivist world view. As identified earlier, the interpretivist approach is based on philosophies which view the world as consisting of multiple realities, which justifies the acceptance of subjective customer meanings and perspectives as credible knowledge (Carson et al., 2001).

The positivist approach in SST research is expressed by the presumption that customers make rational decisions to use SSTs affected by certain factors (Meuter et al. 2000). Much positivist SST research has shown inconsistencies which were attributed to the service context (Meuter et al., 2003), SST interface differences (Walker and Johnson, 2006), cultural differences (Nilsson, 2007) and construct measurement issues (Liljander et al., 2007). Furthermore, relationships between SST adoption factors have proven to be complex, where one construct may influence SST usage decisions directly, as a moderator or as a mediator of other factors (see for example, Lee et al., 2010; Meuter et al., 2005). The complexity and contextual dependency of customer SST adoption suggests the suitability of an interpretivist perspective (Lin and Chang, 2011). Although the positivist approach has helped to explain why customers use SSTs, customer behaviour is not always based on rational and simple cause-effect laws (Baron et al., 2006). In fact, customer usage of technology may be determined by paradoxes and idiosyncrasies bound in subjective customer meanings and perceptions (Baron et al., 2006). Therefore, the present study adopted an interpretivist approach where the focus was on the subjective customer usage and experiences of SSTs.

Interpretivism attributes importance to the customer experience in understanding experiential patterns in context (Thompson et al., 1989; Schutz, 1972). The difference between adopting a positivist perspective and an interpretivist perspective would
constitute the emphasis on the subjective, customer experience (Carson et al., 2001). For example, from an objective point of view, customer usage of SSTs would constitute the fact that a customer interacted with the SST, obtained a service and certain factors appeared to have an influence on this process. From an interpretivist perspective, no two interactions with that SST may be considered quite the same. The final, objective result may indeed be that the customer obtained the service through an SST interaction, but the nature of this experience remains hidden unless the researcher involves the customer in describing and reflecting on the SST interaction (Thompson et al., 1989). Therefore, from an interpretivist perspective, the present study foregrounded the SST customer perspective as expressed by customers and not what appeared to be their observable actions and affecting factors.

Interpretivism recognises the existence of patterns of human behaviour, but they are dependent on the context and motives of the actors and may be very complex to describe in simple stimulus-response laws (Thompson et al., 1989). It promotes the understanding of the context and the actor as a system whose parts do not function independently and cannot be studied separately (Thompson et al., 1989). From an interpretivist perspective, the study of customer SST usage and experiences includes the holistic examination of the customer interpretation of the service context and their role in the specific service situation.

In contrast to positivism, interpretivism recognises the role of the researcher as a social actor in the creation of knowledge (Saunders et al., 2009). While positivist social scientists may observe and test the actions of another human being, this provides only partial understanding, interpreted through the lens of the observer (Schutz, 1972). The meaning of this action to the actor remains unknown to the observer, unless they engage
in a social interaction of exchanging words (Schutz, 1972). The interpretivist researcher invites the participant to reflect on an experience which until then may have had no meaning for the participant (Thompson et al., 1989). Thus, the meaning of customer experiences emerges in the conversation between the participant and the researcher; as such it is co-created (Thompson et al., 1989). Hence, the understanding of the customer perspective on SST usage may be reached only through the ‘act of reflective attention’ on the part of the actor (Schutz 1972, p.51).

The following section discusses the data collection methods considered and selected by the author to collect customer experiences with SSTs from an interpretivist perspective.

4.5 Qualitative Methodology

Following the determination of the research aim, the researcher has to align the philosophical paradigm, the research methodology and the research aim and objectives in a logical and cohesive manner (Goulding, 2002). The research question has to be answered by choosing the appropriate methodology and strategy for data collection and analysis (Saunders et al., 2009). Carson et al. (2001) suggest two approaches to research strategy: (i) structured, when the data collection and analysis instrument are predetermined; and (ii) unstructured, when the research process does not have a clear structure from the outset but evolves and allows for flexibility in accordance with the emerging findings. Hussey and Hussey (1997) and Creswell (2009) divide the research methodologies into three broad groups: quantitative, qualitative and mixed methods.

Traditionally, the positivist paradigm is associated with the application of quantitative data collection methods and the interpretivist paradigm with qualitative methods (Creswell, 2009). Quantitative methods may include surveys, experiments and
observation of large sample sizes with the aim of representativeness of the results of the population (Saunders et al., 2009). Alternatively, qualitative methods, such as interviews and focus groups, deal with smaller sample sizes and aim to explore a phenomenon in depth, but not necessarily be representative of a defined population (Creswell, 2009). Some research designs may include both qualitative and quantitative methods, termed mixed methods research (Saunders et al., 2009).

The interpretivist approach, which underpinned this research, is traditionally associated with the adoption of qualitative methodologies, such as action research, case study, grounded theory, ethnography and phenomenology (Saunders et al., 2009; Goulding, 2005; Carson et al., 2001). Each of those methodologies has a prescribed procedure for data collection and analysis, with a certain level of overlap or adaptation being noticeable (Goulding, 1999). The interpretivist paradigm emphasises the central position of the participants and phenomenon under study and their relationship with the researcher in uncovering new knowledge (Denzin and Lincoln, 2005). Therefore, the primary emphasis in qualitative research is to remain loyal to the phenomenon under study rather than the careful adherence to strict methodological rules (Goulding, 1999).

Qualitative methodologies may be creatively adapted to the idiosyncrasies of the phenomenon under investigation, but not to the extent of creating unjustified confusion (Goulding, 1999). When a researcher employs an interpretivist world view, this means that the research field is entered with little preconceptions, with the researcher keeping an open mind to any new discoveries that may arise during the investigation (Creswell and Plano Clark, 2011). The research process is characterised by data collection, accompanied by ongoing analysis and adaptation of the research inquiry (Fisher, 2010).
The main data collection instruments as listed by Hussey and Hussey (1997) include critical incident technique, diaries, focus groups, interviews, observation, protocol analysis and questionnaires. All of these listed data collection methods can theoretically be utilised to gather both quantitative and qualitative data (Sekaran and Bougie, 2010). Even so, closed questionnaires, structured observation, structured diaries and structured interviews are most often connected to the positivist paradigm as they generally produce highly structured data from large population samples (Hussey and Hussey, 1997). Alternatively, in-depth interviews, participant and field observation, focus groups and open diaries produce more unstructured, detailed data which is often not statistically representative of a defined population (Hussey and Hussey, 1997).

Qualitative data is generally obtained from smaller samples which are purposive in nature rather than statistically significant (Saunders et al., 2009). The data collection and analysis in qualitative research is concerned more with the meaning of phenomena and concepts and produces insights about hard to understand behaviours and events (Fisher, 2010). In that respect, qualitative research does not claim to be objective as the close inspection of the research units cannot exclude the ‘contamination’ by the research process and the role of the researcher (Alaszewski, 2006). The aim of qualitative research is analytical generalisation across cases, or the application of knowledge learned from one research study to a similar situation (Saunders et al., 2009).

Since the aim of the present study was not to test hypotheses, but to search for unexplored aspects of a social and business phenomenon, it was justified earlier in this chapter that the collection of qualitative data is likely to produce better answers to the set research objectives. The chosen research instruments should allow for the participants to reflect on their experiences of the phenomenon under investigation.
Some of the advantages of qualitative research include the production of deep insights and rich data which is highly reliable (Saunders et al., 2009). The drawbacks are that it is very time consuming and expensive which limits the amount of cases which can be researched (Fisher, 2010). This poses a risk that concentrating on a relatively small sample of SST users may leave out important facets of the explored phenomenon.

A range of data collection methods were evaluated for their suitability for this research. The remainder of this section discusses a range of qualitative methods, including online forums, customer diaries, in-depth interviews and short qualitative interviews, with each methodological choice explicitly qualified.

4.5.1 Data Collection Techniques Considered - Online Forums and Internet Communities

A method considered, but ultimately not employed, is the observation or facilitation of an online conversation about SST usage experiences. Internet communities and forums have facilitated the creation of large volumes of user-generated content online, and have enabled a new form of ethnographic research, termed netnography by Kozinets (2002). Netnography may include non-participant observation of an online community, or the set-up of a blog or online group for the purposes of the research (Saunders et al., 2009). Social media platforms also allow for the set-up of groups and pages which may generate considerable discussion on topics (Kozinets, 2010). Onwuegbuzie, Leech and Collins (2010) observet that social media is not a well utilised method for research as yet, but suggest it has significant potential. Millions of people have embraced social media and they engage with different platforms on a daily basis; such social media users might feel more relaxed participating in research in this familiar environment (Onwuegbuzie et al., 2010). A limitation of this method would be the inclusion only of
participants who use the chosen social media or internet community platform (Saunders et al., 2009).

The reason for considering netnography for the purposes of the present study is that it is less intrusive on the participants, allowing them to respond in their own time (Kozinets, 2002). The first form of netnography considered was an online forum or community which may be observed by the researcher without intervention (non-participant netnography) (Kozinets, 2010). While this form of netnography offers advantages in terms of unobtrusive observation, unaffected by the researcher, it may be limited by ethical norms and the extent to which the research objectives may be achieved (Saunders et al., 2009). For example, the objectives of this research would require in-depth customer discussion of their SST experiences. The author conducted an online search via the search engine Google for online customer discussions of SST usage. Some limited discussion was found about supermarket check-outs on Boards.ie, the largest online community in Ireland (www.boards.ie). TripAdvisor and Lonely Planet provided only minor discussion threads about problems with online plane ticket bookings and the Harvard Business Review blog identified discussions about supermarket check-outs. The conclusion was that the existing discussion online about SSTs was not substantial. The information was very incomplete; therefore, non-participant netnography was deemed unfeasible for this research topic.

The second form of netnography, where the researcher is part of the community and interacts with members, is classified as human subjects research (Kozinets, 2010). The researcher may facilitate a discussion on an already existing blog, page and forum, or set up one for the purposes of the research (Onwuegbuzie et al., 2010). The dilemma of public/private content applicable to non-interventional observation is no longer valid.
and the ethical standards require for formal access to the community to be granted by the appropriate gatekeepers, together with consent from each member involved (Kozinets, 2010). Where the research is carried out on a commercial site, the user agreements and terms of usage need to be consulted and observed by the researcher (Kozinets, 2010).

Following these recommendations, the author sought formal access to conduct interventional research at a selected online community. The web abounds with user-generated content, but identifying an online community appropriate for the specific research at hand is not a straightforward task (Saunders et al., 2009). Two options were evaluated for the purposes of this research: (i) to post on a pre-existing travel/tourism forum and generate discussion on SST usage or (ii) to create a page within a social media platform. The largest social media platform at the time, Facebook, with 1.1 billion active monthly users (Facebook Newsroom, 2013), allows for the creation and management of a company, brand or an interest page. For the purpose of this research, the author considered creating a forum page for a discussion of users’ experiences with tourism SSTs. However, the development of a Facebook page was abandoned for three reasons. Firstly, Facebook pages are searchable by keywords, so a page on SSTs may predominantly generate traffic from businesses offering/seeking SSTs, which is not the purpose of the page. Secondly, Facebook requires users to provide their real names and the majority of users provide a personal picture; therefore, the ethical research requirements of confidentiality and anonymity would be violated. Thirdly, the Facebook Statement of Rights and Responsibilities suggests that Facebook will have transferable rights to all the comments which participants may post, as may be identified in the following excerpt from Facebook’s website:
The above cited excerpts from Facebook’s Statement of Rights and Responsibilities discouraged the author from using the social media platform for research due to the ethical issues posed in terms of the content shared by participants. Furthermore, the author automatically gives permission that the data collected for the purposes of this research may be used for other projects or purposes. This may have posed problems in the future dissemination and publication of this PhD research.

The author also considered three of the largest, established online travel communities as suggested by www.skift.com, www.travelsuperlink.com, namely TripAdvisor, Lonely Planet and Virtual Tourist. All three of the online communities provide forums where users may start conversations and discuss tourism related issues. An option was, with the permission of the site administration, to start a conversation on the topic of customer experiences of SSTs in tourism. The author would clearly identify her PhD candidature, the purpose of the discussion and the way the collected data would be used. The drawback of this approach may be that users primarily visit online travel communities to discuss travel-related issues and may not be inclined to contribute to a research-related thread. Furthermore, a research focused discussion may appear as a form of marketing activity to the users and interfere with their usual usage of the online forum. The Virtual Tourist site format allows for members to open and maintain their own profile pages where other members may post comments to. This option could allow for generating a discussion among the travel community members about their usage of
SSTs without being intrusive on their general forum discussions about travel issues and recommendations.

Therefore, the selected forum, considered by the author to undertake her research, was the Virtualtourist.com platform. It is one of the largest online tourism and travel communities with over 1.2 million active members (www.virtualtourist.com, 2012). The author created her own personal page on the site and explored the options for creating content on this page. A review of the Virtualtourist Privacy Statement and User Agreement did not cover the usage of the personal profile for research purposes. Therefore, the author contacted the site seeking clarification of the User Agreement and sought permission to conduct research via her Virtualtourist.com page. The site was contacted by sending an email on 6th July, 2012 to the suggested link provided in the Contact Us section on the Virtualtourist.com home page. In the absence of a reply, the email was re-sent on 19th July, 2012. The email enquiry letter sent to Virtualtourist.com is enclosed in Appendix A. However, the author did not receive a response and therefore decided not to utilise this data collection method.

4.5.2 Data Collection Techniques Considered - Customer Diaries

The author also considered the use of customer diaries as a qualitative research method to collect customer experiences, but this method was not selected. Alaszewski (2006, p.37) defines diaries ‘as a document created by an individual who has maintained a regular, personal and contemporaneous record’. The origin of diaries dates back as far as tenth century Japan and England (Alaszewski, 2006). In research, diaries can be used as a data collection instrument (for example, solicited diaries) or analysed as an existing document (unsolicited diaries) (Alaszewski, 2006). The phenomenon of SST usage in tourism is unlikely to have been documented comprehensively in unsolicited customer
diaries which the author may trace and collect. Therefore, the soliciting of such diaries for this research would be necessary. The keeping of customer diaries has been employed successfully by Baron et al. (2006) in exploring customer usage of short message services on mobile phones. There are certain disadvantages associated with the soliciting of diaries, such as changes in the behaviour under study influenced by the diary keeping (Alaszewski, 2006), but those can be outweighed by the advantages that this method offers.

Some of the advantages of the diary method include the flexibility in accessing reliable information about everyday activities and access to hard-to-observe phenomena which may be collected over a long period of time (Alaszewski, 2006). Ideally, for this research, diaries may be kept by participants in the pre-travel to the destination booking stage, while at the destination and following the return from the trip. The participants could be asked to reflect on their usage of SSTs for this trip and later these participants may be invited for in-depth interviews. Despite all the advantages of diaries, two considerations discouraged the author to employ this method. Firstly, the period of booking a trip, stay at the destination and the return from the trip may be quite extended, for example one year, suggesting that the diary could be abandoned or forgotten. Secondly, asking participants to fill out a diary during a holiday trip may be regarded as insensitive and intrusive. The following sections identify the research methods employed in the design of this research: short qualitative interviews, in-depth interviews and projective techniques.

4.5.3 Data Collection Technique Employed - Interviews

The third method that the author evaluated, and subsequently selected, was the interview. The interview is the primary data collection method in eliciting customer
experiences (Thompson et al., 1989). In-depth interviews are a fundamental data collection method in qualitative research which may be used as part of most interpretivist methodologies such as grounded theory, case study, ethnography and phenomenology (Kvale, 2007; Carson et al., 2001). In-depth interviews generate deep insights and rich data that is highly reliable and participants can be guided by the researcher to cover themes for discussion which are of interest to the research (Saunders et al., 2009). Those deep discussions are very time consuming, which poses a limitation to the number of participants which may be included in the research (Kvale, 2007).

Fisher (2007) represents the interviewing method as a continuum between structured questionnaires at one end and unstructured in-depth interviews at the other end, with critical incident technique (CIT) located in the middle as a semi-structured interviewing technique. Critical incidents, in their essence, collect qualitative data, but can be analysed both qualitatively and quantitatively which makes them a semi-structured research method (Fisher, 2007). A drawback of self-administered open questions, such as the CIT instrument, constitutes the often limited depth of the provided answers (Fowler, 2009).

The limitations of the in-depth interview in capturing larger numbers of participants could be overcome by the qualitative research method of short qualitative survey (Carson et al., 2001). The short qualitative survey may be administered to a larger cross-section of participants for the inclusion of various viewpoints in a short time (Carson et al., 2001). This data collection method is appropriate for identifying central research topics within a subject area, but it poses limitations to the depth of discussion (Carson et al., 2001).
The exploratory nature of this research influenced the choice of data collection methods which allowed for flexibility and openness. Therefore, a two-stage research design was chosen in order that the first stage may inform and focus the inquiry in the second stage. In Stage One of the research, the author combined the benefits of an in-depth interview and the breadth of a short qualitative survey resulting in a method called here a short qualitative interview. This type of interview was rendered suitable for this research because it allowed for the collection of a broad range of SST usage experiences. Following the suggestion by Carson et al. (2001), these short qualitative interviews were followed by the more comprehensive data collection method of in-depth interviews. This second stage of the research allowed for a more comprehensive examination of the themes emerging from the short qualitative interviews. This research design allowed for breadth and depth, as well as increased the quality of the research findings (Ruth et al., 2004). The application of the selected interviewing instruments in the design of this PhD research is outlined in the following two sub-sections.

4.5.3.1 Stage One: Short Qualitative Interviews

The preferred initial research instrument for this thesis was identified as an interviewer-administered short qualitative interview. The interviews were administered following a theme sheet which aimed to capture an overview of participants’ SST activities and experiences. The aim of the short qualitative interviews was to capture a wealth of customer reflections on their experiences of SSTs. Furthermore, the short qualitative interview allowed for the data collection to take place at a location where the researcher had fast, convenient access to customers, in this case an airport with attendant passengers who had potentially used SSTs to pre-book, or utilise during their trip.
The short qualitative interview is different from the short semi-structured interview, which has been previously used in SST research (see for example, Wang, 2012; Andrews, 2009). In a supermarket checkout context, short semi-structured interviews of 5-10 minutes were employed successfully by Wang (2012) and Andrews (2009) to interview customers. These interviews managed to collect sufficient descriptions of customer past experiences with self-service checkouts and generate grounded theory findings (Wang, 2012). Wang (2012) used a questionnaire consisting of six open questions asking customers to reflect on their self-checkout usage and recount positive/negative usage experiences. Similarly, Andrews (2009) included four open questions: the customer’s general view of self-checkouts, their reasons for preferring them over personal checkouts, any problems that they experience and their observations on other customers’ usage of self-checkouts.

Another form of semi-structured interview used in SST research is the Critical Incident Technique (CIT) method. CIT has been applied in SST research both as a self-administered instrument (Meuter et al., 2000) and as a face-to-face interview (Forbes, 2008). CIT is used in management research to identify the critical requirements which lead to a task being completed successfully or unsuccessfully (Fisher, 2007). For example, Fisher (2007) asked supervisors to recall an incident when they thought they dealt with an employee issue well and describe the situation, their thoughts and feelings, what they did and why and what were the consequences.

Although various types of short, semi-structured interviews have proven successful in gathering qualitative data in SST research, the areas for discussion were predetermined. It was established previously that the present study requires a flexible research instrument which may accommodate any unsolicited discussion on the topic of SST
usage. Therefore, the short qualitative interview differed from the semi-structured interview in that it took the shape of a natural discussion, guided by a theme sheet, allowing for the participant to freely express their views and the interviewer to adapt the questions to the discussion. A theme sheet was designed to explore the various customer uses of SSTs and the perceptions and outcomes for the customer arising from engagement with SSTs (see Appendix B). Although a pilot interview is recommended for the refinement of the theme sheet (King and Horrocks, 2012), this step was not conducted for the following reason. The short qualitative interviews were conducted at an airport and the resultant constraints of this research setting, including security restrictions, the stressful environment and time-pressed passengers, precluded pretesting. Furthermore, the author exhaustively discussed the potential themes with her supervisor, with a view to ascertaining any possible flaws or limitations pertaining to the theme sheet.

The main advantage from conducting short qualitative interviews as Stage One of this research was the convenient collection of the range of customer perspectives on SSTs (Carson et al., 2001). The reduced length of the short qualitative interview eliminated the lengthy process of recruiting participants for in-depth interviews which includes scheduling of interviews and organising a suitable location. The short qualitative interview was conducted in such a way that it did not require participants to set time aside for interviewing, but rather the interview fitted into their down time while waiting for a flight. Due to the spontaneous nature of interviewee recruitment, the short qualitative interview is claimed to have accessed the most salient customer SST perceptions and experiences.
The participants were initially asked to talk about their SST usage in relation to their current travel, and were then encouraged to discuss examples, or particularly memorable experiences (positive or negative) with an SST. The short qualitative interview method was enriched with a CIT technique in order to explore any positive/negative episodes that participants may recount. For each experience provided, the author applied the CIT questioning technique, with a focus on what happened, why it happened, how the participant felt and what the outcome was. The theme sheet concluded with brief demographic information about the participant. The demographic information collected from the participants in this research was determined on the basis of three of the most researched demographic variables in SST research, age, gender and education (Lee et al., 2010). The participants were also asked to provide their nationality, as Nilsson (2007) suggests that cultural differences may affect SST usage patterns. Following the recommendation for qualitative interview data collection, the short qualitative interviews were sound recorded for the purposes of increasing the reliability of the data interpretation process (King and Horrocks, 2012). Ethical considerations during recording are discussed further in Section 4.9.

Although short qualitative interviews aim at gaining a fast and general idea of the main issues characterising a marketing phenomenon, this method may be powerful enough to be used on its own to gain valuable insights (Carson et al., 2001). Therefore, all sound recordings were transcribed verbatim and analysed comprehensively. Carson et al. (2001) recommend that the short qualitative interview is used together with another more comprehensive methodology, so that the arising issues are researched in adequate depth. Hence, the in-depth interview was also selected as a research instrument to follow the short qualitative interviews.
4.5.3.2 Stage Two: In-depth Interviews

As identified earlier in this section, the design of this research was planned as a two-stage approach, whereby short qualitative interviews were followed by in-depth interviews. The short qualitative interviews with passengers, at an international airport, provided a broad overview of customer SST experiences from a large number of participants. These experiences, and customer activities (cognitive, emotional, behavioural) relating to them, provided themes for further discussion during the in-depth interviews. While the short qualitative interviews aimed to provide the range of customer SST experiences and perspectives, the in-depth interviews discussed all themes with each participant in order to explore how the different experiences emerged.

Malhotra and Birks (2007, p.207) define an in-depth interview as ‘an unstructured, direct, personal interview in which a single participant is probed by an experienced interviewer to uncover underlying motivations, beliefs, attitudes and feelings on a topic’. Saunders et al. (2009) suggest that in-depth interviews may have some structure in the themes to be discussed, but questions should be asked in the form of natural conversation, allowing for the interviewee to freely express themselves.

However, in-depth interview approaches differ depending on the philosophical perspective of the researcher and the nature of the researched phenomenon (Kvale, 2007). For example, an interview in a feminist study is focused on building trust with the participant and establishing rapport, which may allow for the interviewer to share information about themselves and identify with the participant’s experiences (Kvale, 2007). Biographical and ethnographic interviews may be quite lengthy and unstructured, with little direction from the interviewer as to the areas of discussion
because the aim is to immerse themselves in the participant’s world and describe it with their own terms and structures of expression (Silverman, 2008).

The grounded theory methodology suggests that the researcher should enter the study with no prior knowledge and preconceptions in order to avoid bias, but in its pure form, this is impractical in the present stage of development of most scientific disciplines (Goulding, 2005). A researcher cannot completely ignore the conceptual structures already achieved in a discipline, as this would make it difficult to integrate the new findings in the already existing body of knowledge (Goulding, 1999). Therefore, even if interviews are largely unstructured, a theme sheet with the main areas for discussion is recommended (Kvale, 2007). Similarly, phenomenological interviews should allow for the participant to lead the discussion on the topic, but a topic guide is still needed if the study aims to cover a few aspects of a phenomenon (Kvale, 2007).

The theme sheet designed for Stage Two was more detailed and focused than the theme sheet in Stage One. The theme sheet reflected the objectives of this research which were arrived at by a review of the existing research on customer usage of SSTs and the arising gaps, and also the key themes emerging from Stage One. The structure and wording of the questions was aided by the Stage One participant interview responses. The theme sheet consisted of six sections and is detailed in Appendix C.

The first section of the theme sheet was scene-setting and asked the participant to begin the interview by providing examples of their SST usage in the tourism sector. The experiences provided served as a starting point for discussion in the subsequent sections on motivations, decision-making and customer roles. The second section focused the discussion on the participant’s perspective on their motivation for engaging with SSTs. The third section elaborated on the customer decision-making process accompanying
SST usage. Participants were encouraged to discuss various SST channels, including mobile technologies. The fourth section concerned the customer perspectives on their role by asking them to reflect on their actions during SST usage, including interactions with other customers and employees.

In the first four sections of the theme sheet, while discussing their roles and motivations, participants described their SST usage experiences. The fifth section aimed at focusing the discussion specifically on customer SST usage experiences. The interviewer may prompt or challenge these experience descriptions; for example, if the participant was consistently positive about their experiences with SSTs, they may be probed for experiences when they felt forced to use SSTs or they disapproved of the service process. The sixth section included nine projective sentences which aimed at eliciting further insight into participant perceptions of SST encounters. The application of projective techniques to this research is outlined in Section 4.5.4. The seventh section provided a brief demographic profile.

In-depth interviews may be conducted face-to-face or they may be computer assisted (King and Horrocks, 2010). The advance of technology in everyday life has given rise to the usage of online facilities for research, such as email, chat and social media (Kozinets, 2010). Face-to-face interviewing represents a conversation with a purpose between a researcher and a participant (Kvale, 2007). During this conversation, the researcher records the participant’s verbal and non-verbal responses (King and Horrocks, 2010). Although the preferred interview format according to King and Horrocks (2010) is face-to-face, distance interviewing may offer certain advantages. Distance interviewing may be the preferred method for participants who are too busy to set aside time to take part in an interview otherwise, or are geographically distant from
the researcher and arranging a meeting may be expensive or inconvenient (Saunders et al., 2009). Therefore, the online interview option was provided for participants in order to avoid limiting the sample only to people who are available for a face-to-face interview. The drawbacks of distant online interviewing may constitute internet connection issues and lack of non-verbal communication (King and Horrocks, 2010).

All participants in Stage Two of the research were formally invited to take part by written invitation (see Appendix J). The research invitation informed participants that they had the option of an online interview over a chat facility if they could not attend a face-to-face interview or found it inconvenient. Four of the in-depth interviews were conducted over the online chat facility Skype. Skype provides for video conferencing which can overcome the issue of non-verbal communication that is missed in telephone interviews. However, two of the participants preferred to only have the audio option and whilst the other two interviews started with video, but problems in the internet connection disabled the video option, thus leaving only audio. Although these circumstances limited the observation of non-verbal communication, the Skype technology allowed for these participants to take part in a way which was convenient for them. These four interviews generated rich data and hence were treated in the analysis phase in the same manner as the face-to-face interviews.

Before commencing the Stage Two data collection, two pilot interviews were undertaken for the purposes of refining the theme sheet and testing the interview format (Hennik, Hutter and Bailey, 2011). Pilot interviews are desirable as a strategy towards improving the quality of the research (Hennik et al., 2011; Saunders et al., 2009). Two pilot interviews were conducted in order to test the two suggested interview modes, face-to-face and remote online chat. The first interview was undertaken face-to-face
with a female participant, while the second one was conducted over Skype with a male participant. The Skype format of interviewing at this pilot stage did not pose problems to recording or audibility, but it became evident that the recruited participant did not comply with the sample requirements, that of recent usage of SSTs for tourism purposes, so the interview was discontinued after 10 minutes. This outcome highlighted the importance of careful screening of the participants before participation.

Following from the Stage Two in-depth interview pilot study, the questions in the first ‘scene’ setting section were changed from asking the participant to broadly describe their last trip, to specifically focusing the discussion on the SSTs that they use for tourism. Later in the interview, the participant was encouraged to elaborate on some of these examples with specific usage experiences. The pilot study also contributed to refining the projective technique element in the theme sheet. The analysis of the projective technique responses from the pilot study and from Stage Two of this research is discussed in the following section.

4.5.4 Data Collection Technique Employed: Projective Techniques

The limitations of in-depth interviews may represent the so-called social desirability and the inability of some participants to realise or articulate their true feelings, motives and experiences (Saunders et al., 2009). Social desirability relates to a participant’s desire to provide socially acceptable answers, or answers which they believe the researcher expects (Saunders et al., 2009). The projective technique is a method used alongside qualitative interviewing in order to overcome articulation and social desirability issues (Malhotra and Birks, 2007). Therefore, projective techniques were considered by the author and a decision was made to use the projective technique of sentence completion as part of the Stage Two of this research.
Projective techniques present an ambiguous task to participants, aiming at uncovering in an indirect manner their true feelings, perceptions and motivations (Steinman, 2009). Zaltman (2003) advocates that 95% of consumer cognition is performed at an unconscious level, which they do not know how to express. By using metaphors to talk about a product or service, researchers may be able to bring out the subconscious thinking of the customer (Zaltman, 2003). The projective technique was introduced in this research as a triangulation instrument increasing the reliability of the findings.

There are a variety of projective techniques available including associations, such as word associations and sentence completion; construction of a story around a picture or expressive methods of role playing, third person stories and personifications (Malhotra and Birks, 2007; Rook, 2006). Aside from uncovering subconscious customer motivation, projective techniques may overcome social desirability bias, low levels of verbosity or literacy in expression, memory issues and privacy concerns in the discussion of sensitive topics (Rook, 2006). Projective techniques are often used in conjunction with direct questioning in interviewing or focus groups and may also be used during interviewing to maintain interest as participants find them entertaining (Malhotra and Birks, 2007).

The criticism of some projective techniques, including word and picture associations, comes from the lack of guidelines available to researchers regarding their application and interpretation of the data (Rook, 2006). Rook (2006) concludes that the scientific debate about the reliability and validity of projective techniques comes from their application in clinical psychology. However, in customer research the focus is not on diagnosis, but on the ability to provide new insights. Therefore, projective data is better suited for generating new ideas and insights rather than testing theory (Zaltman, 2003).
Three projective techniques were considered for inclusion in the in-depth interview theme sheet. Those included word associations, personification of an object and sentence completion. The projective techniques section was located at the end of the interview theme sheet in order to avoid influencing the natural conversational flow of the discussion during the interview. The first projective technique considered were word associations which require creativity on the part of the researcher in selecting the appropriate words and interpreting them (Kumar, 2000). The task of interpreting word associations is very subjective which makes it hard to measure the reliability of this projective technique (Malhotra and Birks, 2007); therefore, it was not utilised.

The second projective technique that was considered was the personification of objects (Rook, 2006). This technique involves asking the participant to attribute human characteristics to an object or a product (Rook, 2006). Personification may uncover the deeply nested attitudes of the interviewee towards brands and products (Malhotra and Birks, 2007; Rook, 2006). This projective technique was also not utilised because SSTs are a large and diverse group, as identified in the discussion of SST classifications in Chapter Two, and therefore, participant personifications of SSTs may be hard to generalise.

The third projective technique that was considered and employed for this research was sentence completion, whereby participants are asked to complete sentences or statements (Malhotra and Birks, 2007). Sentence completion may be easy for the participant to complete, but often they may guess the purpose of the question (Malhotra and Birks, 2007). The sentences may be in the form of first person and third person statements about a topic (Steinman, 2009). When customers are asked to suggest what a third person would do, they often expressed what they themselves would actually do in
that situation; thus, projecting on the third person their own perceptions and thoughts (Steinman, 2009).

The three projective techniques were developed and offered to a pilot participant prior to commencing Stage Two data collection. Word associations are suggested to pose limitations to the reliability of the interpretation because it can be very subjective (Rook, 2006). Nevertheless, an attempt was made by the author to include a few phrases from the customer travel experience which may have connections with the customer SST usage experiences for tourism purposes. The projective words offered to this pilot test participant, the rationale for selecting each word and the respective associations provided by the participant are listed below:

1. customer service (probe to what extent customer service is linked to personal contact or SSTs) – telephone

2. holiday (how the associations with holiday in general may relate to the customer attitude towards self-service) – reservation

3. smart phone (what associations relating to self-service does smart phone usage, as the newest interface allowing for SST options, provoke) – Wi-Fi

4. airport (airports are becoming infused with SSTs; therefore, probe how and if SSTs are coming to the fore in customer associations with an airport) – ticket

5. luxury (SSTs were suggested to relate to budget services in the Stage One interviews, so explore the associations with the word ‘luxury’ in order to probe if the participant perceptions of what luxury represents are incompatible with self-service) – spa
6. budget (similarly to the rationale for ‘luxury’, ‘budget’ was included in order to probe to what extent it may be associated with characteristics of SSTs) – money

7. responsibility (since SST usage is characterised with increased customer responsibility, this word was included in order to examine the participant’s attitude to undertaking responsibilities) – restriction

The provided associations could be interpreted in a creative manner, such as the association of ‘customer service’ with a ‘telephone’ suggests that this participant would be more inclined to prefer personal contact during the service encounter. The association of ‘airport’ with a ‘ticket’ may suggest an imagery of traditional, old-style air travel. A ticket represents the old-style paper tickets, but contemporary air travel is synonymous with technology, an association not offered by this participant. The word ‘responsibility’ can have negative associations, with implied links to ‘restriction’ which may suggest that this participant may not be inclined to take too much responsibility when using SSTs. Those interpretations may be regarded as rather subjective and their contribution to understanding customer experiences may be arguable, especially since only one researcher was involved in the data analysis. The risks of misinterpretations during data analysis were evaluated as too high, so this projective technique was abandoned.

Secondly, the pilot participant was asked to describe an SST as if it were a person (personification) which resulted in a very short response: ‘Very smiley, very polite, someone with whom it is a pleasure to communicate. I imagine it as a person definitely’ (Int.0.2.F). The SST which the participant was envisaging was given positive characteristics, which only confirmed the overall positive attitude which the participant
conveyed over the course of the interview. Therefore, this projective technique was evaluated as not able to provide much new insight, so it was not utilised.

The third projective technique used in the pilot interview was sentence completion which identified seven sentences to be completed. These were subsequently increased to nine in the final theme sheet. These sentences included service episodes derived from the Stage One interviews which appeared to stimulate participants’ underlying mental schemes and imagery. The findings from the projective sentences are integrated in Chapters Five and Six.

The seven projective sentences offered to the pilot participant received good responses and also generated discussion. Therefore, the merit of including a sentence completion was not only to uncover hidden perceptions and feelings, but also to probe for further clarification of previously discussed topics during the depth interview. A sentence completion example from the pilot participant is offered below:

*Projective Sentence: The person who booked at the travel agent wanted to...*

Pilot Participant: Someone else to get the work done for them. They just wanted to go there and pay.

*Interviewer: What do you mean by 'work'? Is it not easy to book [online]?*

Pilot Participant: Yes, it is easy, but you still have to do it. It is one thing to go there [website] and click for 2-3 minutes, it is another thing to go there [travel agent] and say: ‘You do this for me, and I will give you this money’. There are people who just don’t want to bother, while for me it is not a difficulty or an inconvenience. (Int.0.2.F)

The above example from a projective sentence response reveals that although SST usage was described as convenient and easy throughout the interview, the participant still regarded it as ‘work’. Furthermore, an image of the SST non-user emerges as someone who does not ‘want to bother’ and who may be experiencing difficulties when interacting with SSTs. The participant clearly distanced herself from the SST non-users which suggest that the image of the SST user is a more desirable one.
Following the choice of data collection methods, Sections 4.6 and 4.7 provide an account of the process of gaining access to participants for interviews and the choice of sample.

### 4.6 Gaining Access to Participants

Gaining access to participants for research has ethical considerations and may additionally involve obtaining permission from ‘gate-keepers’ (Saunders et al., 2009). Business organisations may not be inclined to allow researcher access to their site for reasons such as receiving a large amount of requests from researchers, fear of exposure, inconvenience or disruption of the organisational processes (Fisher, 2010). Furthermore, the researcher has to be strategic about approaching the appropriate person in charge and providing them with clear information about the research process and its risks and possible advantages for the organisation (Saunders et al., 2009). Gaining access may require seeking the assistance of personal or professional contacts that may put the researcher in contact with relevant people in charge (Saunders et al., 2009).

For Stage One of this research, there was a necessity to gain access to participants who had experience in using SSTs in the tourism sector. As the airline industry is one of the most advanced tourism sectors in implementing modern SSTs (Buhalis and Law, 2008), airline passengers were deemed suitable participants. Although the most convenient place to access passengers would be an airport, the author was keenly aware of the stressful nature of air travel which may place limitations in conducting in-depth interviews. Furthermore, airports have to comply with strict security regulations in terms of access.
While the airport location in Stage One allowed for fast recruitment of participants with recent SST experiences, there were limitations to the depth and length of interviews. Therefore, the Stage Two of in-depth interviews and projective sentence completion had to allow for sufficient time for participant recruitment and conduct of interviews. Access had to be sought from gate-keepers where participants were recruited through their place of work and study.

This section presents the process of gaining access to participants for the two stages of the research.

4.6.1 Gaining Access to Participants for Short Qualitative Interviews

By opting for short qualitative interviews, it was possible for Stage One of the research to be conducted at an airport, where participants may have recently used SSTs towards booking their travel arrangements, during or following a trip. Furthermore, the participants are in a travel context enriched with SSTs. Rook (2006) suggests that the context in which a story is reconstructed can significantly affect the memory process. Therefore, it was identified that conducting the interviews in an SST-enriched travel environment may further facilitate the eliciting of tourism SST experiences. To that end, the author considered Dublin International Airport as a primary site to facilitate Stage One of the research as there is a large traffic of travellers and they are likely to have recently used SSTs for their trip.

In April 2011, the author attended a research seminar in the Dublin Institute of Technology presented by Mr Mark Evenden, who was a Manager of the Dublin Airport Market Intelligence Department. The author approached Mr Evenden afterwards to enquire about gaining access to Dublin Airport in order to conduct customer research. The subsequent email communication with Mr Evenden is enclosed in Appendix D. Mr
Evenden provided the details of contacts from the Marketing Research Department at Dublin Airport. The email communication with Ms Catherine Abbey from the Marketing Research Department at Dublin Airport, denying access, is enclosed in Appendix E. The researcher failed to gain access to Dublin Airport because their policy did not permit third party research on site.

Following the denial of access by Dublin International Airport, the author, through professional contacts, approached Shannon International Airport in County Clare and subsequently liaised with the Shannon Airport Operations Manager, Mr Pat Foley. Shannon International Airport is an iconic Irish airport, located in the West of Ireland, which serves transatlantic and European destinations and facilitated passenger traffic of 1.6 million in 2014 (www.shannonairport.ie). The passenger traffic figures by nationalities are presented in Figure 4.2 below.
Table 4.1 below represents a summary of the stages of negotiating and securing access to participants for Stage One of this research. The initial research request was made through a professional contact who advised the author that access may be negotiated on condition that passengers are not interviewed for longer than 5-10 minutes. The author sent an email to Mr Pat Foley, Operations Manager, seeking access to the airport to interview passengers (see Appendix F). A follow-up email was sent on July 14th 2011 which is enclosed in Appendix G. Mr Foley replied on 15th July 2011 granting research access for five days, from 8th to 12th August 2011. The procedure towards securing access to the airport necessitated the author providing personal details and a current photo and submitting this to Mr Pat Foley. The email correspondence regarding security clearance is provided in Appendix H.
### Table 4.1 Stages of Gaining Access to Shannon International Airport

<table>
<thead>
<tr>
<th>Date</th>
<th>Contact Name</th>
<th>Results</th>
<th>Appendix</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 June 2011</td>
<td>Pat Foley, Operations Manager at Shannon Airport</td>
<td>An email seeking access to Shannon Airport for research was sent. Mr Foley was away on a business trip.</td>
<td>F</td>
</tr>
<tr>
<td>14 July 2011</td>
<td>Pat Foley</td>
<td>A follow-up email seeking access to Shannon Airport for research was sent. Access was granted for conducting research for five days between 8th and 12th August, 2011.</td>
<td>G</td>
</tr>
<tr>
<td>15 July 2011</td>
<td>Pat Foley</td>
<td>Personal details of the researcher were sent to the Operations Manager for the purposes of security clearance</td>
<td>H</td>
</tr>
<tr>
<td>2 August 2011</td>
<td>Pat Foley</td>
<td>Final arrangements regarding the issuing of a security pass and access to the airport were organised.</td>
<td>I</td>
</tr>
<tr>
<td>8 August 2011</td>
<td>Duty Manager</td>
<td>A five-day security pass was issued to the researcher at the airport police desk.</td>
<td></td>
</tr>
</tbody>
</table>

Source: The Author.

On August 2nd 2011, a week before the research was to take place, the author was in email contact with Mr Foley to finalise the access arrangements. The email correspondence is enclosed in Appendix I. The author was advised to carry a valid passport or drivers licence with her for issuance of an access permit for conducting research.

The author arrived at Shannon International Airport on the morning of August 8th 2011, at 8.45am. The author contacted the Operations Department as advised by the Operations Manager. The Duty Manager was called, and the author was brought to the Airport Police desk, where she was issued with a temporary five day escorted visitor pass for Shannon Airport. The pass had to be displayed at all times by the author when in the airport. The pass required a member of the airport staff to accompany the author through all security check gates on entrance and exit. The author had to obey the same security requirements as passengers passing security and entering the departure gates at the airport. She had to present her passport for inspection, pass through the scanners on
entrance, and carry no liquids or sharp objects. The Duty Manager explained to the 
author that she was allowed in all areas of the airport except the pre-clearance area for 
the USA flights. In order to enter this area, passengers had to pass extra security checks 
an hour before departure and were sectioned off in an area before the boarding gate. The 
author was at all times under the supervision of the Duty Manager at the airport. 

This section outlined the stages of gaining access to Shannon International Airport. 
There was a significant amount of pre-planning involved, primarily in the granting of 
formal access and security clearance. The author had to comply with security 
requirements and restrictions associated with an airport as a research site. The following 
section outlines the procedure for gaining access to participants for the Stage Two of in-
depth interviews and projective sentences. 

4.6.2 Gaining Access to Participants for Conducting In-depth Interviews 

As discussed in Section 4.5, the research design included a Stage Two of in-depth 
interviews which gathered data in a more comprehensive manner on the topics which 
emerged during the short qualitative interviews. The established sampling procedure for 
in-depth interview participants, discussed in Section 4.7.2, involved recruiting a diverse 
sample of SST users. The participants were recruited in two ways, focussing on people 
accessible to the author and a number of participants through their place of work or 
study. Participants who were accessible to the author included friends, professional 
contacts and colleagues, so access was not negotiated with gate-keepers. 

The participants who were recruited through their place of work or study had to be 
accessed via a gate-keeper’s permission. Therefore, access to these participants for in-
depth interviews involved seeking permission from a range of individuals including a
school headmaster, a store manager, a recruitment agency secretary, a leisure centre manager, a university lecturer and three DIT lecturers.

Contacting the gate-keepers involved distributing print invitations or emailing them and seeking their cooperation in distributing research invitations amongst the employees or students in their organisation. The participant invitation, outlining the aim of the research and what participation would involve, can be found in Appendix J. For example, the access to undergraduate students at DIT was established by addressing four different classes before the beginning of their lecture. This access was organised by approaching three DIT lecturers and seeking their permission for a convenient time to address their students regarding research participation. The students who displayed interest in participation provided their contact details to the author for the purposes of setting a time and date for conducting an in-depth interview.

The following section discusses how the sample of participants for short qualitative interviews and in-depth interviews was chosen.

4.7 Choice of Sample

This section describes the choice of sample decisions undertaken for the two research stages. The careful choice and recruitment of a research sample are important towards ensuring the quality of the research findings (Saunders et al., 2009). The sampling criteria for both stages of the present study were that participants had to have relatively recent experience with SSTs in the tourism sector and that they were over 18 years of age. Stage One employed a convenience, diverse sample of airline passengers, while Stage Two employed a convenience, snowball sample of diverse participants from a
variety of sources. The considerations towards defining these samples are presented in Section 4.7.1 and 4.7.2 below.

4.7.1 Participant Sample for Short Qualitative Interviews

One of the characteristics of qualitative research is that it does not always aim at generalisability of the findings to a defined population (Saunders et al., 2009). Samples in qualitative research could be probabilistic, but are most often non-probabilistic and purposive (Malhotra and Birks, 2007). Qualitative research is concerned with meaning rather than measurement (Carson et al., 2001). Therefore, qualitative research purposively seeks to involve participants who have experience of the phenomenon under study or are a wealthy source of information on the topic (Guest, Bunce and Johnson, 2006). Hence, the sample for the short qualitative interviews was purposive, seeking participants who had previous experience with SSTs. This type of purposive sampling was employed by Wang (2012) and Andrews (2009) who conducted short semi-structured interviews with customers at supermarket self-checkouts.

The second requirement was that participants were over 18 years old. The first reason for this was that the independent usage of a large number of SSTs, such as online booking, requires the user to be an owner of a credit card and an active bank account, which may not be indicative of an under 18 age group. The second reason was that interviewing participants under 18 years old posits ethical restrictions and the seeking of permission from parents/guardians (Saunders et al., 2009), which would not be feasible at the airport location. The inclusion of participants younger than 18 was not considered as valuable to the study because these participants would not be economically independent and their usage of SSTs may not be as fully developed as their older counterparts.
Since this research did not have statistical generalisation as an aim, this justified the choice of convenience sampling in recruiting participants for the short qualitative interviews. There is no clear evidence from the literature review of discrete customer groups who interact with SSTs differently, which may warrant the introduction of criteria for quota sampling (Malhotra and Birks, 2007). If there are displayed differences in the way certain groups in the population may experience a phenomenon, for example, men and women, then the data collection design should allow for inclusion of the perspective of each group (Guest et al., 2006). However, although diversity was aimed at during participant recruitment, there was no set quotas of participants determined. This approach was similarly employed by Wang (2012) who conducted semi-structured customer interviews of 5-10 minutes at the self-checkouts of five different stores, which were frequented by customers of various socio-demographic backgrounds.

Stage One of this research was conducted at only one location, but the author attempted to gain a range of observable customer demographic variables (see Appendix K). The Table in Appendix K provides a description of the sample in terms of age, gender, education and nationality. Furthermore, the author interviewed passengers for a prolonged time period every day (between 9am and 5pm) which allowed for the recruitment of passengers from various flights taking off throughout the day. Some of these destinations included the UK, USA, France and Spain; therefore, the nationalities of the passengers included predominantly Irish citizens, travelling to these locations and people from these countries who were going back home.
The average number of interviews per day was 27. The researcher found passengers to be very willing to participate and very cooperative. The participant response rates on the five days are presented in Table 4.2.

### Table 4.2 Participant Response Rates

<table>
<thead>
<tr>
<th>Interview day</th>
<th>Participants approached (number)</th>
<th>Agreed to participate (number)</th>
<th>Refused to participate (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th August 2011</td>
<td>36</td>
<td>28</td>
<td>8</td>
</tr>
<tr>
<td>9th August 2011</td>
<td>43</td>
<td>29</td>
<td>14</td>
</tr>
<tr>
<td>10th August 2011</td>
<td>37</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>11th August 2011</td>
<td>44</td>
<td>32</td>
<td>12</td>
</tr>
<tr>
<td>12th August 2011</td>
<td>22</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>182</strong></td>
<td><strong>133</strong></td>
<td><strong>49</strong></td>
</tr>
</tbody>
</table>

Source: The Author.

The reasons given by airport passengers who refused to participate varied from having too short a time before boarding, never having used SSTs, doing work on the go, not interested or were not in a mood to talk. The number of participants interviewed during the five day period totalled 133.

### 4.7.2 Participant Sample for In-Depth Interviews

The sampling technique employed in Stage Two was, similarly to Stage One, purposive and convenience, and also snowball. Weiss (1995) suggests a number of methods for conducting a purposive, convenience sample for in-depth interviews:

- Ask friends and acquaintances if they know people who may fit the sampling criteria of the research and may be willing to participate
- Start with people who are available to you and then ask them for referrals
- Advertise for volunteers
- Find a congregating place for the targeted people
- Approach professional or other associations of such people
The first screening criterion was that participants were over 18 years old, as already discussed in the previous sub-section. Secondly, the sample for this research targeted participants who had tourism and SST experience, and had undertaken a trip within the past year. The reasons for recruiting participants who had recently travelled were firstly to avoid memory issues, and secondly because SSTs advance rather quickly. The third screening criteria was that participants had some experience with booking travel online, kiosk usage and possibly experience with smart-phone applications.

The recruitment of participants for in-depth interviews employed a number of the above identified approaches by Weiss (1995). Initially, the participant recruitment process commenced amongst eligible people who were known and available to the interviewer. Those included colleagues in the Dublin Institute of Technology, professional contacts from previous employment and personal friends. These participants were recruited in a number of ways, including distributing invitations in person, via email, Facebook message and LinkedIn invitation. Although the invitations were not sent following a systematic sampling procedure, the author attempted to achieve a socio-demographic diversity when sending out the invitations. Following the interview, participants were encouraged to suggest other prospective participants, which resulted in a total of seven extra recruitments. Some of those approached or interviewed suggested referrals; thus, the sample became snowball in nature, in addition to convenience and purposive.

The method of recruiting participants amongst people who were accessible to the author was justified as more cost effective in gaining access to those who satisfied the sample requirements. In qualitative research, the researcher is part of the research process and has a direct influence on the quality of the data generated from interviews (Kvale and Brinkmann, 2009). Some of the participants in the in-depth interview sample were
personally known to the author. However, it is suggested that the discussion of the participants’ SST experiences were not of a personal or sensitive nature to such an extent that they may be reluctant to discuss with a person they know (see Appendix O – Declaration of Research Ethics and/or Assessment of Risk in this respect). Therefore, the inclusion of persons known to the researcher does not compromise the quality of the interview data.

Participants were also recruited amongst the employees of various organisations by contacting a gate-keeper who distributed research invitations to their colleagues/employees/student body. A further method for recruiting participants was by addressing undergraduate student classes in the Dublin Institute of Technology with the permission of the lecturer. The variety of participant recruitment pools accessed ensured diversity in the socio-demographic characteristics of the people who took part in the in-depth interviews (see Appendix L). Table 4.3 summarises the number of people contacted from each source and the participants recruited respectively, the type and the location of the interviews.
<table>
<thead>
<tr>
<th>Source</th>
<th>Mode of Contact</th>
<th>People contacted (number)</th>
<th>Participants recruited (number)</th>
<th>Type of interviews</th>
<th>Location of Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional contacts and friends</td>
<td>Facebook LinkedIn</td>
<td>53</td>
<td>Direct contact (9) Snowball recruits (5)</td>
<td>Skype (4) Face-to-face (10)</td>
<td>Cafes (8) Participant’s home (1) Interviewer’s home (1)</td>
</tr>
<tr>
<td>DIT colleagues and staff</td>
<td>Email Print invitations</td>
<td>16</td>
<td>Lecturers (2) PhD students (2) Snowball recruit (1)</td>
<td>Face-to-face (5)</td>
<td>DIT meeting room (5)</td>
</tr>
<tr>
<td>Shannon College of Hotel Management staff</td>
<td>Email</td>
<td>Contacted a fellow PhD student who asked staff</td>
<td>College staff (2) Snowball recruit (1)</td>
<td>Face-to-face (3)</td>
<td>Shannon College meeting room (2) Hotel cafe (1)</td>
</tr>
<tr>
<td>Local school staff</td>
<td>Print invitations</td>
<td>Contacted the head master, who asked staff</td>
<td>School staff (3)</td>
<td>Face-to-face (3)</td>
<td>School headmaster’s office (3)</td>
</tr>
<tr>
<td>Clothes store staff</td>
<td>Print invitations</td>
<td>Contacted the assistant store manager, who asked staff</td>
<td>Store staff (2)</td>
<td>Face-to-face (2)</td>
<td>Cafe (2)</td>
</tr>
<tr>
<td>Recruitment agency staff</td>
<td>Print invitations</td>
<td>Contacted a secretary and a consultant, who asked staff</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Leisure Centre staff</td>
<td>Email invitation</td>
<td>Sent email to provided contact on website</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DIT undergraduate students</td>
<td>Researcher addressed four undergraduate classes of students before their lecture with the permission of the lecturer</td>
<td>2nd year students (around 40) 2nd year students (around 15) 4th year students (around 25) 4th year students (around 15)</td>
<td>Students (5)</td>
<td>Face-to-face (5)</td>
<td>DIT meeting rooms (5)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>32</td>
<td></td>
<td>Skype (4) Face-to-face (28)</td>
<td></td>
</tr>
</tbody>
</table>

Source: The Author.

### 4.7.3 Sample Size

Although the sample size in qualitative research is generally suggested to be determined by the point of reaching data saturation (Saunders et al., 2009), considerations were
undertaken to determine the appropriate number of participants. Kvale and Brinkmann (2009) suggest that the number of interviewees largely depends on the purpose of enquiry. The common number of interviews in qualitative studies is 15 +/- 10, but often the number is either too small or too big (Kvale and Brinkmann, 2009). Too few interviews may hinder generalisation because of diversity in groups, while too many may be very time consuming and there may be no opportunity to undertake deep analysis (Kvale and Brinkmann, 2009).

Guest, Bunce and Johnson (2006) suggest that research methods textbooks avoid providing recommendations regarding the number of interview participants required in non-probability samples. Furthermore, even where such numbers of interviewees have been recommended, there has been no empirical justification (Guest et al., 2006). Guest et al. (2006) provide the following guidelines: 25-60 interviews for grounded theory and ethnography; 6-8 participants for phenomenology where the sample is homogeneous. If the sample is diverse, the researcher may need to conduct 6-8 interviews with each subgroup. Furthermore, if the researched phenomenon is not well-defined, data saturation may occur after more than 12 interviews. For case study research, Carson et al. (2001) suggest 35-45 in-depth interviews, which may be distributed between four to twelve cases. Therefore, the amount of interviews per case should be between four and ten interviews. Perry (1998) suggests that for qualitative PhD research studies, the appropriate number of depth interviews is 30-45. Myers and Newman (2007) provide an overview of qualitative studies into information systems usage research. The number of interviews included in various studies ranges from 12 to 105 (Myers and Newman, 2007).
The population of SST users is very diverse in terms of demographic characteristics, but no clearly defined groups of users have emerged as observably different in their SST usage (Nilsson, 2007). Even so, 47 short interviews proved sufficient in Wang (2012) and 57 in Andrews (2009) who interviewed a diverse sample of supermarket self-checkout users at the supermarket. The short qualitative interviews in Stage One were conducted in a similar manner, but they aimed at gaining customer experiences not only with one SST type but the range of SSTs used by customers. Therefore, the author anticipated that the number of interviews in the present study may exceed the 50-60 average employed by Wang (2012) and Andrews (2009). Furthermore, SSTs are a very diverse group, so experiences may be quite varied in nature depending on the situation (Walker and Johnson, 2006).

This diversity in SST users and experiences which is hard to sub-divide into groups made it difficult to provide a clear number of participants to be included in Stage Two of in-depth interviews. Based on the above discussion, and Perry’s (1998) recommendation for PhD research interviews, the minimum number of in-depth interviews would be 12 and the maximum would be approximately 45. As identified previously, 133 participants took part in Stage One of short qualitative interviews, and 32 participants in Stage Two of in-depth interviews. The next section provides a detailed account of the data collection process in Stage One and Stage Two of this research.

4.8 Qualitative Data Collection

Following the methodological considerations and preparations, the next stage of the research process was data collection. The data collection was undertaken in two stages in accordance with the two-stage research design.
The overall number of participants who took part in the research was 165, of whom 133 were interviewed in Stage One and 32 in Stage Two of the research. The enthusiasm with which interviewees responded and reacted to the research topic and questions posed to them reflects the place of SSTs in contemporary customers’ lives and their engagement with them.

In general, participants became quite animated, in a positive and negative manner, when speaking about their SST experiences, suggesting their personal involvement in SSTs. For example, it is observable how the participant quotation below emphasises the emotional charge of the experience by using the words ‘absolutely’ and ‘really’:

You get these phones [self-service telephone system] that give you all the options and then when you pick an option, they make you listen to some spiel first... and I absolutely hate that. (Int.103.1.M)

This new expenses software that we use is fantastic. I am really impressed by that! (Int.117.1.F)

The Stage One interviews took place in a busy airport environment and were not more than 10 minutes long. Since the participants, SST users over the age of 18, were recruited at the airport, they were not sent formal invitations and questions to prepare for the interview. Despite this, the richness of the data generated and the prompt accounts of very engaging SST usage situations indicate that SST usage was a current discussion topic for the participants. No ‘breaking the ice’ questions were included in the interview schedule because of time constraints, but participants were quick to recount very personal, emotional and honest accounts of their SST usage experiences.

The Stage Two interviews were conducted with a sample of 32 users of SSTs in the tourism sector, aged over 18. Participants found it very easy to talk about their SST usage experiences and articulate their perceptions and feelings. During the discussion, some participants found it intriguing to explore their own preconceptions about SST
usage. For example, during the discussion of his smart phone usage, a participant (Int.31.2.M) found it surprising that despite his young age and technological proficiency, he was still reluctant to make a purchase over the mobile phone.

The Stage Two interviews included a projective techniques section of sentence completion which was received with interest by participants as suggested by their non-verbal responses. Nearly every participant had a smile on their face while answering some of the questions. This suggests that they were relaxed and enjoying the task. Interestingly, some participants gave long answers to some of the projective questions or used them as prompts to tell other SST experiences. Participants often had to pause and think, suggesting their mental involvement with the task. This further emphasises the engagement of participants in the interview topic and their wealth of SST experiences.

After the interview, some participants stated that they really enjoyed talking about their SST usage. For some, the interview even had an enlightening effect by prompting them to reflect on their SST behaviour. For example, the concluding comment of one participant was as follows:

No, I think that’s about everything. I mean comprehensive, I have never looked at my own behaviour like that, in those kind of details [laughter]. (Int.19.2.M)

After the interviews had concluded and the digital recorder was switched off, some participants continued to talk to the author. One interviewee even compared the interview experience to a psychological interview and stated that it was very ‘therapeutic’ for her (Int.20.2.F). Other participants were amazed at how much they had to say and they felt happy they could contribute to the research. Therefore, it may be suggested that the interview topic was regarded as engaging and stimulating for the participants. Only a couple of participants found it a bit unusual to reflect on their
experiences because they indicated they did not talk much in general. It is interesting to note that these participants were amongst the most technologically proficient users. Even so, their interviews provided interesting insights and the author reassured them of their important contribution to the research.

The two stages of data collection are described in detail in this section. The detailed description of the data collection process is part of conducting transparent research and contributes towards evaluating the quality of the research and identifying its limitations (Flick, 2008).

4.8.1 Stage One: Conducting Short Qualitative Interviews

Since the purpose of this research was to understand customer usage and experiences with SSTs, the focus of the short qualitative interviews was on collecting a diversity of customer SST experiences. The interviews were conducted in the form of a natural dialogue between the interviewer and the participant, rather than a survey-type questioning approach. This approach established a quick rapport, which was essential for eliciting reflective narratives in a short time. Experiences with SSTs for purposes other than those specifically related to tourism were included in the discussion because of the difficulty in separating tourism experiences from everyday life experiences (Gretzel and Jamal, 2009).

Prior to the commencement of Stage One data collection, the author had to make preparations regarding dress code, and necessary technical and stationery equipment. The researcher’s conduct and dress may considerably influence the data collection procedure (Kvale and Brinkmann, 2009). The researcher should aim to predispose the participants by firstly building rapport through the way they appear (Saunders et al., 2009). Airline passengers may travel for business or leisure trips, so the dress code may
vary from casual to business. This stage of data collection was conducted during the month of August 2011; therefore, a large proportion of travellers may be holidaymakers. Furthermore, much of the airport ground staff wears suit uniforms, so the author also had to avoid appearing as a member of the airport staff. Following the above considerations, the author chose to wear a casual, brown jacket and trousers which was neither too formal, nor too leisurely. The author also secured a DIT badge and bag in order to appear credible to the participants. Furthermore, the author was required to wear her research visitor pass, which further emphasised the legitimacy of the research. These measures were necessary because of the heightened security awareness of passengers while at an airport.

The sound recording of the interviews had to be facilitated by purchasing a digital sound recorder and practicing to use it beforehand. Lastly, the author supplied stationery equipment, such as pens, paper and a clipboard to facilitate note taking while at the research site.

The short qualitative interviews were conducted in Shannon International Airport, Co. Clare. Some preliminary preparation took place before the data collection commenced on 8th August, 2011. Firstly, the author checked the flight departures schedule. On the days from 8th to 12th August, flight departures started from 5am with a flight nearly every hour. The flight departures between 10am and 3pm reached four flights an hour for some days. In the period between 3pm and 9pm, there were between three and five flights on most days. It was considered too early to approach passengers for interviews before 9am; therefore, the best times were determined to be between 9am and 5pm.

A drawback of conducting research at an airport is that passengers may be stressed. The nature of air travel may include getting to the airport on time and organising car
parking. The increased security at airports also requires thorough security checks and careful compliance with baggage restrictions. The researcher wished to avoid interrupting the passengers’ journey and, as such, a number of appropriate areas for approaching passengers were considered, including waiting areas after security checks and boarding gates.

The researcher was at the airport over a five day period and commenced the research at 9am and finished interviewing by 5pm. The author approached an idle passenger/s (for example someone awaiting a flight in the departure area) and asked if they would like to participate in this PhD research. If passengers agreed to participate, the author explained briefly what the research was about and what their participation would involve. An outline of this explanation is included in the Stage One Theme Sheet in Appendix B. At this stage, the author obtained a verbal informed consent from the participant. The researcher gave a definition of SSTs, accompanied by a couple of examples including internet, kiosk and mobile SSTs. If the participant indicated that they were a user of SSTs, they were qualified as a suitable participant and were asked for permission to record the interview. The author explained that the tapes would not be played in public, and possible references to interview content in publications would make provisions to observe anonymity and confidentiality.

When permission was granted, the author started the digital recorder. As previously mentioned, the access to the airport was negotiated on the condition that passengers would not be interviewed for periods longer than 10 minutes. Therefore, the researcher monitored the interview length, so that the airport management requirements were not breached. When the interview was completed, the sound recording was stopped. After
this the researcher thanked the participant and asked for permission to complete their demographic profile.

Although from the outset the intention was to conduct personal one-to-one interviews, many people travelled in couples; therefore, 11 of the interviews were discussions involving couples rather than individuals. This was a feature of one participant being invited to take part in the research, and once the interview started, his/her partner would walk up and ask to join the discussion. As such, these interviews reflected the requirement to adapt the research design to the research field (Saunders et al., 2009). In such cases, the participants expressed their own views independently of each other even where they had joint SST experiences. Therefore, these interviews were treated as one interview with two separately coded participants during the data analysis. This allowed for the analysis of the individual participants’ accounts to be grounded in the overall context of the discussion.

4.8.1.1 The Airport Research Environment

The key locations where the author approached participants included the departure waiting lounge area and the boarding gate area. The author found that interviewing passengers standing in a queue was not as effective as interviewing passengers who were sitting in a quiet area. Passengers clustered around the boarding gates 30-40 minutes before boarding, and the place tended to become rather crowded. The presence of other passengers in close proximity seemed to distract some participants or made them wary of others listening. The author also had to pause the interviews on the digital recorder because of loud and frequent airport announcements, but this did not deter passengers. Passengers were cooperative and concentrated, despite the noise levels at the airport and the necessary pauses during the interview.
Another feature of the research environment at Shannon Airport was the presence of other professional researchers at the airport who were conducting survey research for the same five day period or part thereof. During this period of data collection, three surveys were being conducted at Shannon Airport by Failte Ireland, Red C Research and Marketing Ltd. and NUI Galway. The researchers were all very friendly and cooperative in terms of sharing the research field, and the author avoided areas at specific times used by the other researchers. For example, the researchers from Red C and Failte Ireland had set passenger quotas from specific flights, so once they were filled, they moved swiftly to another boarding gate. Furthermore, the researchers from Failte Ireland and NUI Galway targeted only non-Irish participants. The high response rates and the overall high enthusiasm and cooperation of the research participants may be perceived as indicators that the presence of other researchers did not affect adversely the data collection process.

4.8.2 Stage Two: Conducting In-Depth Interviews

The purpose of the Stage Two in-depth interviews was to elicit comprehensive understanding of the range of customer SST experiences in terms of their co-creation by the customer. The findings from the Stage One interviews stimulated the refinement of the research objectives as presented in their current form in Section 4.3.

As already identified in the previous section on sample choice, convenience and snowball samples were utilised in Stage Two. The main requirements for taking part in an interview were that participants were over 18 years old and users of SSTs for tourism purposes within the past year. The interviews began by an initial briefing as this is another element of conducting the interview which may significantly affect the quality of the answers (Kvale, 2007). The briefing is also part of the building of rapport process.
and needs to be carefully executed (King and Horrocks, 2012). The briefing included the standard information about the purpose of the research, confidentiality and anonymity, accompanied by the participant signing the Informed Consent Form (see Appendix M).

Furthermore, the briefing of each participant was tailored depending on the situation and the relationship to the researcher. For example, participants who were not familiar with qualitative research needed extra clarification on the research process, the purpose of the interview and their participation. The author knew some of the participants personally, so some time was allocated to friendly chat before the interview briefing. The researcher set the scene of the interview by explaining to the participant that they were being asked to act in the role of a research participant, and not as a friend of the author. Similarly, where the author had never met the participant before, a short chat was naturally included to enable a relaxed atmosphere. The briefing was considered to be a very important stage of the interview process, because it set the context and prepared the participant. Even where the participant had allocated only an hour for the interview, the briefing stage was not overlooked. The length of the briefing was between 5 minutes and 15 minutes, depending on the above specified conditions.

Participants were given a choice in the research invitation to be interviewed in person or via an online chat facility. Four of the interviewees opted to take part in the research over Skype. Taking the limitations of distance interviewing into account as examined in Section 4.5.3.2, some extra measures needed to be taken towards the success of these interviews. Firstly, Skype participants could not sign the informed consent form in person, so they were asked to declare their consent to be interviewed by return email to the Online Consent Form (see Appendix N). Following the receipt of the informed
consent email, the author sent a Skype contact exchange invitation to the two participants who were not known to her. Two of the interviewees were known to the author and they both opted to conduct the interview over a sound connection only. The other two interviews were with participants not known to the researcher, so initially they started via a video connection in order to build rapport. After a while the video connection on both occasions could not hold good sound quality; therefore, the video was turned off.

The recording of the Skype interviews was conducted via an external recording device as recommended by King and Horrocks (2010). The recording of all four Skype interviews was successful. The author made a conscious attempt not to interrupt the participant, but still to reassure them of her presence in the absence of a video connection. After the initial few minutes of Skype interviews, participants became confident with talking online and were aware that the researcher was listening.

Each interview began by asking open or introductory questions (Kvale, 2007) about the participant’s usage of SSTs for tourism purposes. Those questions allowed for the participant to identify the types of SSTs they were users of, and express their general experience as SST users. While the interviews followed a pre-determined theme sheet, there were some variations in the order in which all the themes were covered depending on the flow of the conversation, the participant’s experiences and their ability to reflect on their actions. Furthermore, the author asked follow-up probing and clarifying questions to generate discussion. The author often included interpreting questions for the purpose of avoiding misinterpretation of the participant’s view during the analysis. Interpreting questions are also included to generate extra discussion on the subject (Kvale, 2007). For example, an excerpt is offered below to illustrate an interpreting
question asked during a participant’s discussion of their increased responsibility as a customer when using tourism SSTs.

Participant: It doesn’t bother me at all, no, no. Now like I would regard myself as a semi-educated or a reasonably well-educated consumer and I’m quite happy, I’m well-travelled. So I would have no issue accepting whatever additional responsibility that the process might bring. I may not know the destination I’m going to as well as the travel agent, but in all other facets, I think I would have a good idea of what’s going on out there.

Interviewer: OK, I understand. So you mean your experience from previous travels would help you towards feeling a lot less burdened with your responsibilities?

Participant: Correct, correct. (Int.25.2.M)

The primary aim of the interviews was to understand the participant’s view on their experiences with SSTs. Therefore, participants were allowed to freely discuss their opinions or express any associations that arose in connection to SST usage. For example, some participants talked about their overall view of technology in society and its effect on human communication and employment. The average interview length on tape was around 50 minutes, but the time spent with the participant may exceed 50 minutes significantly depending on interview arrangements, briefing and debriefing. The interview concluded by asking the participant to fill in the sentence completion and they were invited to make final contributions. Following this, the demographic profile was completed including age, gender, nationality and education similarly to the Stage One interviews. The variable of occupation was also included because, during the Stage One interviews, some participants referred to their work environment as a factor facilitating IT skills development and SST usage.

King and Horrocks (2010) suggest that when the recorder is turned off, participants may continue talking and actually provide information which they may have felt was not appropriate for tape recording. This phenomenon did not occur because the subject of discussion did not appear to raise sensitive issues or privacy concerns. When the recorder was turned off some participants seemed relieved, and admitted that they were worried if the information they provided was of good quality for the research. The
author had to re-assure them about the value of their contribution. Some participants, especially the ones who did not speak English as their first language, were worried about the quality of their expression. Most participants commented that they had never thought of their SST experiences in such a light and that they had enjoyed the discussion.

4.8.2.1 The In-Depth Interview Research Environment

The locations for conducting interviews were evaluated carefully to suit the participants, but also to obey the rules for ethical conduct and avoiding unnecessary harm and risk to either the researcher or the participants. The risk assessment of this research, which was necessary for the granting of ethical approval by the Dublin Institute of Technology, concluded that the main risk to conducting interviews would be solitary working. The measures taken to ensure the researcher’s safety included meeting the participants in public locations. Furthermore, the locations were assessed for suitability in terms of noise level and other possible distractions wherever possible. King and Horrocks (2010) suggest that the physical environment may affect the quality of the interview, for instance the participant may not be at ease or may be distracted. Therefore, a primary consideration was to agree on a location where the participant would feel most relaxed and willing to talk. On some occasions, the location was suggested by the interviewee and may not have been suitable for sound recording, but the digital recorder’s options for muting background noise proved helpful and the recordings were of sufficient quality for transcription.

The locations included public cafes, DIT meeting rooms and a Shannon College of Hotel Management meeting room. Only on one occasion, where a personal friend of the author and also a neighbour was interviewed, the researcher’s house was used as the
interview location. Another personal friend to the author also suggested that she would feel more comfortable to conduct the interview at her house. These were the only two exceptions when a public location was not the setting of the interview. This exception was made to suit the participants and because the safety of the author was not threatened.

When interviews took place in a public location extra care was taken to choose as quiet a spot as possible and make the participant comfortable with the presence of the recorder. The author took care to place the recorder so that it was not very visible and assured the participant that there was no need for them to raise their voice because the recorder could pick it up. Those extra measures observably relaxed participants. The following section outlines the ethical considerations associated with conducting the present study and the process of gaining ethical approval from the Dublin Institute of Technology, Research Ethics Committee.

4.9 Ethical Considerations

This section presents the ethical considerations and requirements which were observed before, during and after this PhD research. The positioning of this section in the Research Methodology chapter should not confuse the reader that ethical considerations were carried out following data collection. Research ethics are an integral part of contemporary research and they are an ongoing process accompanying every stage of the research (Fisher, 2010; Saunders et al., 2009). The importance of conducting ethical research stems from protecting the participants, as well as protecting the image of academic research and ensuring its future (Fisher, 2010).
The commitment to carrying out ethical research begins with the design of the proposed project which needs to have a meaningful purpose, quality, integrity and transparency (ESRC, 2012). Part of the ethics of research is to conduct research which is beneficial to society. The outcomes from this research provide deeper understandings of customer perceptions and experiences during SST encounters, which will assist service providers, customers, marketers, managers and policy makers in ensuring optimal customer adoption and usage of SSTs in the tourism industry, and the wider services sector.

A requirement of conducting ethical research is the granting of ethical approval from a formal ethical committee (ESRC, 2012). Before the commencement of data collection, the author was required to seek ethical approval from the Dublin Institute of Technology’s Research Ethics Committee. This is a requirement of the Institute whereby every PhD research project needs to acquire ethical approval prior to commencement. This process involved the submission of standard forms for Ethical Research Declaration (see Appendix O), Field Risk Assessment, Subjects and Researchers, and Consent Form. The research evaluation necessitated detailed information about how participants would be recruited, the interview procedure, the data storage and usage. This research does not fall into the types listed by ESRC (2012) as potentially involving more than minimal harm to the participants. Some of the potential risks which were considered in the risk assessment may constitute data loss, or breaking of the anonymity and confidentiality promise. To avoid such misuse of the data, it was stored on the author’s encrypted computer while all records of participants’ details were kept separately.

Anonymity refers to preserving the identity of the people who agree to participate in research (Saunders et al., 2009). This process involves using pseudonyms and codes
instead of real names or changing the name of the location or other contextual data if there is a possibility that this may lead to identifying the participants (Fisher, 2010). Fisher (2010) also recommends that the personal information behind every code is kept somewhere separate from the interview data and that it is destroyed after the research is completed. In cases such as social research, the moral duty of the researcher to report criminal practices which may incidentally be discovered in the course of the research may press the researcher to break the promise of anonymity (Saunders et al. 2009). The nature of this PhD research did not envisage that any sensitive or criminal information would be discussed and indeed it was not.

Taking into account the above information, this research undertook to protect the anonymity and confidentiality of the participants in the following ways:

1. The transcripts from interviews were kept separate from the key linking personal information to a transcript. The hard copies of the interview transcripts were locked in a drawer in the author’s house. The recordings were saved on the author’s encrypted computer and on a USB key which was locked in a personal safe in the author’s house.

2. In the body of the thesis and any research publications, only anonymous codes were used when referring to interview transcripts. These codes appear in brackets after the quotations and excerpts from the data. The coding identifies the order in which the interviews were conducted, in each stage of the research design and the gender of the participant. For example, the code Int.14.2.F stands for interviewee number 14, from Stage Two interviews, who was a female.
3. If the participant, in the course of the interview, mentioned names, locations or context detail, which revealed their identity, the author took care that when publishing interview excerpts, this information was not presented in a way that may break the anonymity agreement. This included deleting identity revealing details, which did not carry value for the research.

Informed consent is part of the ethics of carrying out research with human subjects and the autonomy of people to decide whether research would be carried out on them (Hammersley and Traianou, 2012). All participants were informed beforehand about the nature of the research and the way the provided information will be treated and used. Preferably the informed consent is documented in writing (ESRC, 2012); however, informed consent may not always take the same format depending on the practicalities of the research being carried out (Hammersley and Traianou, 2012). Signing an informed consent may indeed put off some participants, in terms of creating a very official atmosphere or embarrassing illiterate people (Hammersley and Traianou, 2012).

The seeking of informed consent was deemed necessary for this PhD research and it was obtained in three different modes. For the short qualitative interviews at the airport, informed consent was obtained verbally for a number of reasons. Participants did not have sufficient time to read and sign an informed consent form and physically the environment was not convenient for this. Airport authorities and national tourism bodies often conduct surveys at airports and travellers are used to being surveyed, but a qualitative interview would not be the norm. Therefore, it was attempted, while still informing the participant, to adhere to the familiar format of surveying where an informed consent form is not signed (Saunders et al., 2009). The atmosphere at airports is sensitive, in terms of security requirements, and a stranger approaching a passenger
and asking for their name and signature, may be treated as suspicious. Finally, the
participants were all independent travellers, so they were over 18 years old.

The in-depth interviews allowed for sufficiently more time to sign an informed consent,
which was sought from all participants (see Appendix M). The interviews which were
conducted over Skype posed a difficulty to sign a paper consent form, but an online
consent form was sent to the participant’s email and it was accepted via return email
(see Appendix N for online consent form). Such emails were printed and treated as a
signed document.

4.10 Data Analysis

Data analysis in qualitative research is the process of illuminating the meaning of the
collected evidence during the research and thus the gaining of understanding (Gibbs,
2007). This process commences at the start of data collection and concludes with the
write up and presentation of the findings from the research (Kvale, 2007). Miles and
Huberman (1994) describe three main approaches to qualitative data analysis as
interpretive, social anthropology and collaborative social research. The method suited to
the philosophy and data collection practices of interpretivism is the interpretive or
hermeneutic method of data analysis (Goulding, 2005; Miles and Huberman, 1994
Thompson et al., 1989). This method of data analysis is not seeking to uncover laws of
causality, but rather to capture the essence of a participant’s account and to understand
the meaning of actions (Goulding, 2005). The analysis is kept at the level of the lived
experience, which means that any inferences need to be supported by the words of
participants (Thompson et al., 1989). The procedure for data analysis employed in this
research was adapted from Kvale (2007), Daymon and Holloway (2011) and Thompson
et al. (1989). This process included a number of stages which are presented in this section together with their application to Stage One and Stage Two of this research.

4.10.1 Listening and Reflection

During an interview, the interviewer needs to listen actively to the participant and analyse what they are saying, in terms of significance for the research, in order to manage the conversation (Kvale, 2007). The analytical skills of the researcher at this stage would determine whether important findings are spotted early and discussed in sufficient depth throughout the interview (Gibbs, 2007). Following an interview, the researcher is advised to take time to reflect on the emergent findings (Kvale, 2007) and listen to the recordings as soon as possible (Daymon and Holloway, 2011).

The data analysis process in Stage One commenced on the first day of data collection at Shannon Airport. During the interviews, the author listened attentively for any participant comments which may be of particular significance for the objectives of this research and encouraged further discussion. After every couple of short interviews, the author took time to reflect on the conversations and make note of any thoughts.

The data analysis process in Stage Two again commenced with the conducting of the first in-depth interview. As already described in Section 4.8, the data collection procedure included probing and clarifying questions. These questions were tailored by the author during the interview to explore in depth issues of interest arising during the course of the conversation. On some occasions, participants asked the author for clarifications to her questions. Furthermore, after each interview, the author reflected and wrote notes on the data generated. Transcription of the sound recordings began as soon as possible after conducting each interview.
4.10.2 Transcribing

Sound recorded qualitative interviews are transcribed for the means of detailed coding and interpretation (Gibbs, 2007). Kvale (2007) suggests that interviews should be transcribed with various levels of detail, depending on the data analysis method to be employed and the chosen research paradigm. Hermeneutics and discourse analysis necessitate the inclusion of as much detail as the researcher can take note of, including silences, utterances, body language and environment (Kvale, 2007). It is recommended that interviews are transcribed by the researcher because more accuracy is achieved and this process allows the researcher an immersion in the data (Gibbs, 2007).

Each digital recording, from both Stage One and Stage Two, was transcribed verbatim and printed in hard copy. As mentioned above, the transcription was completed as soon as possible after each interview. The interpretive perspective of this research determined that a detailed transcription of the sound recordings be undertaken, including all ‘ahms’, ‘aahs’, but not including extreme linguistic detail. It was indicated in brackets whether the participant or the interviewer expressed any emotion, stuttered, paused, or gestured. Observations on the research environment, such as interruptions or noise are included in parentheses.

Following the transcription, the data from Stage One was input into NVivo qualitative data analysis software, while the Stage Two transcripts were printed and analysed manually. The coding process is outlined in the following section.

4.10.3 Coding and Categorising

Coding is the process of organisation of the data into sections of similar content and meaning (Daymon and Holloway, 2011; Kvale, 2007). The coding approach adopted in
this research followed the procedure for qualitative data coding as described by Daymon and Holloway (2011). The coding process of the Stage One data began with reading and rereading of the transcripts until the researcher identified emerging trends in the data (Daymon and Holloway, 2011). The researcher read through the interview transcripts and manually noted recurring themes and issues. The codes for labelling the similar sections of text were created ‘in vivo’, using participant’s own words, or the author introduced ‘topic codes’ to reflect the overall meaning expressed or implied by the participant (Kvale, 2007). The broad themes included the following:

1. SST interface examples

2. Rationale for SST usage

3. Customer actions and interactions relating to SST encounters

4. Service failure incidents

5. Perceptions of SST encounters

6. Emotions and feelings

At this stage, it became evident that it would be very hard to perform manual coding of the data because of the large number of interviews, thus computer coding was introduced for improved accessibility. The broader themes represented the structure for the more detailed coding using qualitative data analysis (QDA) software. Each of these categories was subdivided into codes using NVivo, representing recurring themes in the data. A sample of the emergent codes, categories and relationships between them can be found in Appendix P.
Introducing computer analysis software to interpretive analysis has been criticized for stifling creativity and hindering deeper analysis activities (Bazeley, 2009). Furthermore, automated analysis of qualitative data may pollute the qualitative analysis with quantitative elements (Bazeley, 2009). Bazeley (2007) suggests that some of those criticisms of QDA software are being overcome with the development of new features. The rapid access to the original text documents behind the codes overcomes the disconnection from the data, while modelling tools allow for creative viewing of the data in perspective (Bazeley, 2007). There is a common misconception that QDA software only supports grounded theory methodology (Bazeley, 2007). QDA software is only a tool which can aid in more efficient management and interpretation of the data, but it is the researcher who ultimately interprets the data (Kvale, 2007).

Taking into account the above considerations, the data was imported into the QDA software, NVivo 9, for more detailed analysis, as the large amount of interview transcripts were hard to manage manually. The analysis commenced with manual open coding for the purposes of grasping the major themes, as computer coding can often result in over-coding and lack of broader understanding of the data (Kvale, 2007).

The next stage was the analysis of the data for emergent categories relating to the research objectives (Richards, 2009). This is the real interpretive or qualitative analysis of data which illuminates meaning and creates new ideas (Richards, 2009). The findings relating to customer SST experiences were labelled by the author as six categories of experiences: accomplishment, lack of control, manipulation, supportiveness, social tension and concern about discrimination. The categories describing customer motivations relating to the co-creation of these experiences were labelled by the author as convenience, control, lower price, enjoyment, empathy, forced usage and eco-
friendliness. The customer perspective on their roles during SST encounters produced seven categories labelled by the author as *convenience seeker, motivated worker, technological sweeper, judge, enforced worker, unskilled worker* and *assistance provider*. Throughout this coding process, the researcher made memos and took notes of observant ideas and relationships in the data (Daymon and Holloway, 2011). The coding process concluded with the identification of possible connections between codes (Daymon and Holloway, 2011). It became evident that there are connections between customer SST motivations, roles and experiences.

The result from the Stage One of this research was the identification of the main themes towards exploring the customer perspective on SST usage in tourism. These themes served to craft the theme sheet for the Stage Two in-depth interviews where substantial discussion was generated in a focused manner. Each transcript from the Stage Two in-depth interviews was coded manually by writing comments in the margins beside the relevant text. After this process, a table was drawn on an A1 sheet for the purpose of better accessibility of the data. The broad categories which emerged in Stage One (motivation, experiences and customer roles) were entered in the horizontal columns, and each participant number in the vertical rows. The page references of each participant’s comments relating to each category were entered in the corresponding boxes.

The data analysis of the Stage Two data did not embark on detailed coding like in Stage One. The coding matrix employed by the author can be found in Appendix Q. The aim of the analysis was to understand each participant’s account and the data as a whole. This process included reading and re-reading of the transcripts and understanding the participants’ perspective. The process also involved constant note-taking of any
observable ideas and connections in the data. The data generated from the nine projective sentences in Stage Two was entered in Excel tables with the participant’s responses to each sentence. These responses were compared and cross-tabulated for any observable explanation behind the variety in responses. The next stage of data analysis is the interpretation of the findings (Daymon and Holloway, 2011) and is outlined in the following section.

4.10.4 Interpreting the Data

The process of interpretation aims to display the meaning of the data and thus highlight the discoveries from the investigation (Daymon and Holloway, 2011). The interpretation of the data in this research obeyed the principle of autonomy as defined in existential phenomenology (Thompson et al., 1989). Autonomy stands for the treatment of the interview data as the only source for credible interpretation (Thompson et al., 1989). This means that the researcher may not infer more from the data than the participant discussed, so if any theoretical inferences are made, they need to be bracketed and thus recognised as a researcher’s inference towards grasping the meaning, rather than imposing it (Thompson et al., 1989).

The interpretation of the data from Stage One involved consulting again the reviewed literature on customer SST adoption and customer roles. Further literature was consulted including multi-channel service research, Service-Dominant Logic and motivational theories. The evaluation of the interpretation was carried out when the data coded under each code label was reviewed for relevance to the theme.

The interpretation of the findings from Stage One and Stage Two involved a process of writing and reflection on the meaning of the participants’ accounts. The author continually returned to the interview transcripts, extracting quotations and excerpts
which supported an interpretation or inference from the data. The presentation of findings drew on excerpts from the data in both Stage One and Stage Two in supporting the emerging interpretation.

4.10.5 Evaluating the Interpretation

Qualitative data interpretation is considered of good standard when it provides meaningful insights which are supported with clear references from the data (Kvale, 2007). The interpretation should be written clearly and understandable for the reader (Daymon and Holloway, 2011). Furthermore, the researcher should ascertain that the interpretation holds to rigorous scrutiny by performing a critical analysis (Daymon and Holloway, 2011). This critical analysis comprises the exploration of alternative explanations or negative cases which disconfirm the conclusions (Daymon and Holloway, 2011). The quality of interpretation was evaluated on the basis of how clearly it was supported by data evidence. The criteria employed to ascertain the quality of this research is discussed in the following section.

4.11 Evaluating the Quality of the Research

Flick (2008) presents the quality of qualitative research not as a measure, but as a continuous process of decision-making from the research question to the presentation of findings and conclusions. This process should be focused on answering the research question by employing the most appropriate methodology in an ethical way (Flick, 2008). Furthermore, an indication of the quality of qualitative research is the justification, and transparent presentation, of the methods of data collection and analysis selected and applied during the research project (Richards, 2009). The justification of a qualitative methodology and the methods considered was presented earlier in this chapter.
There are few widely agreed standards for conducting and evaluating qualitative research unlike the quantitative standards for reliability, and internal and external validity (Flick, 2008). There are three perspectives to evaluating qualitative research: (i) adapting the quantitative measures; (ii) crafting a separate set of standards; or (iii) applying no fixed criteria (King and Horrocks, 2012). While the lack of a unified perspective poses challenges to evaluating qualitative research, the conducting of good quality qualitative research should not be abandoned as a priority (Bryman, 2007). The requirements of qualitative research to be ethical, trustworthy and credible (King and Horrocks, 2012; Flick, 2008; Kvale, 2007) were accepted as guidelines for ensuring the quality of this research. This section focuses on the trustworthiness and credibility of the research with ethical considerations presented in detail in Section 4.9. King and Horrocks (2012) recommend a number of strategies towards ensuring the quality of qualitative research, including triangulation, participant feedback, peer checks, providing of thick descriptions and an audit trail. This section presents how these recommended strategies are considered in this research.

4.11.1 Trustworthiness

The trustworthiness of qualitative research relates to the reproducibility of the findings (Kvale, 2007). In practice, this means that if the data was to be collected or analysed by a different researcher, they would arrive at similar conclusions following the research procedure (Kvale, 2007). Therefore, the trustworthiness of qualitative research reflects the influence of the researcher on the research process. Trustworthiness was considered as an important criterion in the present study because the aim was to provide the participants’ perspective on their SST usage experiences. Following the decisions on research methodology, the actual conducting of good quality qualitative interviews requires expertise and precision (King and Horrocks, 2012). The researcher has to be
receptive of any influences from the environment which may affect the quality of the interview, as well as be aware of the influence of their own questions, body language and dress (King and Horrocks, 2012). These considerations have been addressed in Section 4.8 in the detailed description of the research environment and researcher conduct during the interviews.

The interviewer remained neutral and asked open questions in order to prevent biasing the interview trustworthiness (King and Horrocks, 2012). Although the author remained neutral, the qualitative interview in its nature is a social interpersonal interaction through which knowledge is co-created (King and Horrocks, 2012). Therefore, the influence of the author on the quality of the data collected may not be fully excluded (Kvale, 2007). Kvale (2007) argues that the emphasis should not be on whether the researcher influenced the process by asking leading questions, but rather if those questions did lead to any new and worthwhile knowledge.

Qualitative interviewing may be associated with some level of social desirability such as the desire of participants to present themselves in a more socially desirable light (King and Horrocks, 2012). Social desirability may threaten the trustworthiness of the research findings. Therefore, the research design included a projective sentence technique component with the aim of accessing the subconscious mind of the participant and cancelling out possible social desirability effects. Another trustworthiness enhancing technique during interviewing, employed by the interviewer, was to ask clarifying questions (King and Horrocks, 2012). These clarifications aided in presenting more accurately the participant perspective during the data interpretation process and also enhanced the credibility of the research.
The data collection was executed in two stages of short qualitative interviews followed by in-depth, longer interviews. This approach extended the period of data collection and also collected data in various settings from diverse participants, which is suggested as a triangulation method for ensuring the quality of the data by King and Horrocks (2012) and Flick (2008). The aim of data triangulation in qualitative research, depending on the chosen philosophical approach, may be to gain further insight into the studied phenomenon rather than to verify findings (Bergman, 2008). In the case of this research, the two stage approach was chosen for the purpose of exploring the issues from Stage One in more depth.

4.11.2 Credibility

Credibility in qualitative research relates to the extent to which the conclusions inferred from the data convince a reader as to its merit and quality. The data analysis of qualitative research poses questions regarding the credibility of the interpretations (Kvale, 2007). A general strategy in qualitative data analysis is that the findings are logical and grounded in the data (Fisk, 2008). There are a number of methods to ensure the quality of the analysis depending on the purpose of the research, including participant feedback, independent coding and undertaking an audit trail.

If the purpose of the research was to represent as accurately as possible the participant views, then participant feedback should be sought in confirming the conclusions (Kvale, 2007). In the present study, participant feedback towards the analysis conclusions was evaluated as unnecessary because participants were not expected to be experts on the subject. The participant’s feedback was sought during the process of data collection via summarising and probing questions, which is indicated as the first stage of data analysis by Kvale (2007). These questions attempted to verify that the researcher’s interpretation
of participant responses matched what the participant was attempting to communicate. These questions are recommended (see for example, Kvale, 2007), especially if the research process does not include participant feedback.

Independent coding is another popular method for ensuring data quality where different researchers code the data independently of each other and then compare the overlap in coding (King and Horrocks, 2012). This method of coding implies a realist perspective and is suitable mostly for research projects which treat participant accounts at face value (King and Horrocks, 2012). The nature of PhD research requires that it is the sole work of the author; therefore, independent coding was impractical and also evaluated as unnecessary. The credibility of the interpretations was assured by providing excerpts from the transcripts and thick descriptions when presenting the findings so that the reader may judge the consistency of the interpretation (King and Horrocks, 2012). Furthermore, the quality of the analysis was enhanced by frequent peer checks. This research was presented at the internal DIT Annual Research Symposiums, and at four international conferences where it won second prize in the category of Best PhD Proposal at the 18th Annual Conference of the International Federation for IT and Tourism & Travel (IFITT) ENTER 2011, Innsbruck, Austria. The data from Stage One was the basis for three peer-reviewed publications (Kelly et al., 2013a; Kelly, Lawlor and Mulvey, 2013b; Kelly, Lawlor and Mulvey, 2011), which indicates the agreement of the scientific community with the research method and interpretations. A list of all publications of this research is provided in Appendix R.

An audit trail presents, in a transparent manner, the analytical process employed by the researcher and aims to strengthen the logic of the conclusions reached (King and Horrocks, 2012). The research audit trail was facilitated by digital recordings of all
interviews, hard copies for the transcripts and field notes. The emergence of the coding themes and their development over the course of the analysis is of specific importance (King and Horrocks, 2012). The process employed, including coding and interpretation, is presented in Section 4.10. A valuable instrument which contributed towards the transparent account of all processes in this research was the maintenance by the author of a research diary. This research diary includes entries on the stages of the research from the start of the PhD process, including generating of the research objectives, selection of the methodology, conducting the data collection and analysis procedures. The following section outlines the limitations of employing an interpretivist, interview research design.

4.12 Limitations of this Research Approach

The adoption of any research approach and methods of data collection and analysis is associated with certain limitations, determining the interpretation and applicability of the findings (Saunders et al., 2009). This section outlines the limitations of employing an interpretivist research approach and the interview method. The discussion of these limitations aims to assist the reader in understanding the scope of this research.

The adoption of an interpretivist approach meant that subjective meanings and reflections constituted the data for this research (Carson et al., 2001). Therefore, the inferences made from the data should not be treated as generalisable laws or causalities. The aim of this research was to provide an understanding of the customer perspective on their SST usage experiences and not to generate an externally validated theory, explaining or measuring the occurrence of SST usage.
Interviews as a research method are a very powerful research instrument in acquiring first hand participant accounts of their experiences, but they present certain limitations (Saunders et al., 2009). The key limitations of conducting interview research at an airport were already outlined earlier in this chapter, including the stressful environment, Shannon Airport’s imposition of a limit of 5-10 minutes for interview per passenger, noise levels and other researchers present at the scene. Those limitations were largely outweighed by the wealth of data collected and its value for gaining a fast understanding of the phenomenon under investigation. Furthermore, this first stage of data collection was followed by a stage of in-depth interviews where some of those limitations, such as noise and time restraints, were cancelled out.

The quality of in-depth interviews is dependent to a large extent on the willingness of participants to share their experiences and the extent to which they are able to recall details of the situation (Rook, 2006). While the participants in this research were volunteers and very willing to assist in the research process, there were occasions when the participant was not able to recall exact details of an SST experience. In the majority of such occasions, the participant was still able to reflect on their perceptions and outcomes from the experience, but a detailed, thick description may have provided better understanding of the contextual influences. Some of the participants did not speak English as a primary language, which posed a limitation to the clarity of expression on separate occasions.

The sampling and participant recruitment procedures also posed certain considerations regarding the interpretation of the findings. This research is not generalisable to any defined population of SST users since the sampling was of a convenience and non-probability nature. 15 of the 32 participants for the in-depth interviews were known to
the author. It is argued that this is a feature of qualitative research whereby the researcher seeks to access a variety of rich perspectives as opposed to imposing quotas or seeking to select specific individuals. Furthermore, the participants in this research were predominantly residing in Western European countries and the United States, suggesting that the captured perspectives may not be representative of SST users from other parts of the world.

Another limitation which applies mostly to the in-depth interviews was the participant recruitment procedure. While every attempt was made to access a demographically diverse sample, the invited people self-selected themselves for participation. The self-selection bias (Fisher, 2010) associated with such participant recruitment was displayed in the recruitment of a predominantly highly educated sample of individuals with undergraduate degrees and higher educational attainments. It may well be the case that participants without an undergraduate degree either did not respond, or they may have been put off by the thought of an interview and a recorder.

The coding and interpretation of the data collected in this research was performed by the author; therefore, the interpretation may be influenced by the author’s background, expertise and knowledge. The author carried out frequent consultations with her academic supervisors and presented at conferences amongst peer researchers in order to avoid some of the subjectivity of interpretation.

Taking into account all the above identified limitations of this research, the findings should be treated as a subjective interpretation and presentation of the customer perspective on their SST experiences. The findings could only be generalised to the sample of participants who took part in this research and other research settings may produce different conclusions.
4.13 Conclusion

Chapter Four presented the process of knowledge creation during this PhD research. The chapter began by outlining the research aim and objectives and their theoretical background. The pronounced necessity to explore the nature of customer SST usage behaviour and the dearth of academic knowledge in this area justified the employment of a two-stage qualitative methodology. Following careful considerations of the available research methods, the chosen data collection methods were short qualitative interviews and in-depth interviews. The data collection and analysis procedure was presented in detail together with the ethical considerations and strategies for conducting good quality, qualitative research. Although the two-stage research design contributes towards improved methodological quality (Flick, 2008), there were limitations encountered, characteristic of the interviewing method and the research environment. Chapters Five and Six discuss the findings from the two stages of data collection and analysis.
Chapter 5 Customer SST Usage Motivations

5.1 Introduction

In Chapter Four, the design of this research as an interpretivist multi-stage data collection and analysis methodology was outlined. Chapter Five is the first of two chapters presenting the findings from the primary qualitative research. The data from the two research stages was amalgamated in the interpretation stage for the purposes of capitalising on the breadth of discussion from the short qualitative interviews, and the comprehensive customer reflections from the in-depth interviews, and projective sentence technique component. The findings are presented under the headings of the three research objectives, arrived at based on gaps in the SST literature.

The discussion is supported by quotations and excerpts from the interviews, where each quotation is followed by a unique code number corresponding to the participant. The codes appear after each quotation in the following way: (Int.28.1.M). This identifies interviewee number 28 from Stage One interviews who is a male. Similarly, the code (Int.14.2.F) stands for interviewee number 14 from Stage Two interviews who is a female. For the purposes of confidentiality and anonymity, any references to service companies, institutions or specific locations are replaced in the excerpts with letters such as X, Y and Z.

This chapter focuses on the findings relating to the first research objective, to investigate customers’ motivations for using SSTs in the tourism sector. The chapter
begins with an overview of the participants who took part in this research and how they contributed during the data collection stages. The SST interface types discussed by participants are outlined in order to set the context of the findings that follow. Seven customer motivations inductively interpreted from the data are discussed: convenience, forced usage, control, enjoyment, access to lower price, eco-friendliness and empathy.

SSTs are a diverse group and may be implemented to perform various service functions (Meuter et al., 2000). The following section outlines the SST interfaces and functions discussed by participants in this research, and thus delineates the scope of the findings to be presented.

5.2 Research Objective One: To investigate customers’ motivation for using SSTs in the tourism sector

The first objective of this research was to investigate customers’ motivation for using SSTs in the tourism sector. This research consisted of two data collection stages as discussed in Chapter Four. As Stage One of the research was exploratory, the participants were initially invited to discuss their SST usage leading up to their current trip and were then invited to discuss their SST usage in general. Naturally, many of the SSTs referred to in Stage One related to tourism because the setting of the interviews was an airport. Furthermore, it may be suggestive of the high levels of SST infusion in tourism, with airlines being amongst the pioneering businesses to implement SSTs. In Stage Two, when discussing customer usage of SSTs in tourism, participants often refer to examples from their everyday SST usage which may not have a clear connection to tourism.
Table 5.1 outlines the SSTs identified by participants in Stage One and Stage Two. It is important to highlight that even though the researcher provided some examples of SSTs in order to define the focus of the research, the following SSTs are the ones that participants have used and chosen to discuss during the interviews. These SSTs are organised in Table 5.1 by interface type to facilitate clarity. The SST interface type dimensions are derived from Castro et al. (2010) and Meuter et al.’s (2000) SST classifications.
Table 5.1 SST Interfaces Discussed by Participants in Stage One and Two

<table>
<thead>
<tr>
<th>Interface Type</th>
<th>Stage One of Research</th>
<th>Stage Two of Research</th>
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<tbody>
<tr>
<td>PC/Laptop</td>
<td>Online shopping&lt;br&gt;Online insurance&lt;br&gt;Online information&lt;br&gt;Online visa application&lt;br&gt;Online hotel booking&lt;br&gt;Online flight booking&lt;br&gt;Online train booking&lt;br&gt;Online parking booking&lt;br&gt;Online education&lt;br&gt;Online check-in&lt;br&gt;Online banking&lt;br&gt;Online top-up for mobile&lt;br&gt;Online animal registration</td>
<td>Online shopping&lt;br&gt;Online insurance&lt;br&gt;Online information&lt;br&gt;Online visa application&lt;br&gt;Online hotel booking&lt;br&gt;Online flight booking&lt;br&gt;Online train booking&lt;br&gt;Online parking booking&lt;br&gt;Online education&lt;br&gt;Online check-in&lt;br&gt;Online banking</td>
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<td>Kiosk</td>
<td>Kiosk train/bus ticketing&lt;br&gt;Kiosk retail check-outs&lt;br&gt;Kiosk for tourist information&lt;br&gt;Kiosk airport check-in&lt;br&gt;Kiosk at car park&lt;br&gt;ATM&lt;br&gt;Kiosk post office&lt;br&gt;Kiosk photos&lt;br&gt;Kiosk for mobile top-up</td>
<td>Kiosk train/bus ticketing&lt;br&gt;Kiosk retail check-outs&lt;br&gt;Kiosk for tourist information&lt;br&gt;Kiosk airport check-in&lt;br&gt;Kiosk at car park&lt;br&gt;ATM</td>
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<tr>
<td>Smart phone and telephone</td>
<td>Interactive Telephone Menu&lt;br&gt;Mobile GPS maps&lt;br&gt;Mobile banking&lt;br&gt;Mobile bookings and e-commerce&lt;br&gt;Mobile travel planner apps&lt;br&gt;Mobile bar code scanning&lt;br&gt;Mobile check-in&lt;br&gt;Mobile restaurant apps</td>
<td>Interactive Telephone Menu&lt;br&gt;Mobile GPS maps&lt;br&gt;Mobile banking&lt;br&gt;Mobile bookings and e-commerce&lt;br&gt;Mobile travel planner apps&lt;br&gt;Mobile bar code scanning&lt;br&gt;Mobile check-in&lt;br&gt;Mobile restaurant apps&lt;br&gt;Mobile games apps&lt;br&gt;Mobile recommender apps</td>
</tr>
<tr>
<td>Headphones and interactive guides</td>
<td>Museum head phones</td>
<td>Museum head phones&lt;br&gt;Museum interactive screen</td>
</tr>
</tbody>
</table>

Source: The Author.

It may be observed that there is little difference between the SSTs listed in the left and right hand side columns of Table 5.1. Interestingly, in Stage Two where participants have been asked to reflect specifically on their SST usage in tourism, the range of SST interfaces discussed is similar to Stage One. The possible explanation may be that participants view SST usage in tourism as not being much different from SST usage in
other service contexts. Where such difference is stated by participants, it does not specifically suggest connection to characteristics of the tourism context. For example, the following excerpt is from a discussion which evolved from a participant’s statement that she does not like giving her credit card number to accommodation providers online:

Participant: If I am booking a hotel, I use... Some even prefer that you don’t pay. You just make a reservation and when you go there, then you pay, not in advance...
Interviewer: So you are more predisposed to use this site because they do not require payment upfront?
Participant: Yes, because otherwise I would, how to say it, I am afraid. They warn everywhere, especially sites for purchasing clothes, cosmetics, to be careful with them.
Interviewer: And how do you find the sites for air travel tickets?
Participant: I think maybe they are a bit more secure. Not that they are used more often, people buy clothes and stuff every day, while air travel is limited.
Interviewer: So somehow you find the airline websites more secure?
Participant: More secure, yes. Especially, there are companies with a reputation from many years.
Interviewer: So it is because you know that there have been no problems with this company?
Participant: I believe that if anything like that happens, it will be in the media. (Int.2.2.F)

The reader may observe how in the reflections on a tourism SST, the participant brings into the discussion retail SSTs, in this case clothes and cosmetics e-commerce websites. She makes a distinction between airline websites, and accommodation and e-commerce websites on the basis that airline websites have an established reputation and not because of the tourism context. Furthermore, where participants refer to SSTs in general, it then transpires that they lend themselves to a tourism context. For example, an ATM is a banking SST, but it is also given as an example of SST usage during travel. A self-service retail checkout is a retail SST, but while travelling, tourists may have to shop at local stores and interact with retail SSTs as part of their tourism experience. Even online shopping may relate to the tourism experience when participants buy books and movies online to entertain themselves while travelling. The only SST examples which arguably do not have an explicit connection with the tourism experience are online education and online animal registration.
The examples in Table 5.1 relate to a variety of tourism contexts. Specifically, the majority of tourism SST usage relates to the travel, hospitality and attractions sectors. Booking travel online is almost taken for granted by participants. For example, one of the participants exclaims: ‘Who goes to travel agents!’ (Int.23.2.F). Another participant indicates that he is not sure if airlines still sell through travel agents which is evidenced in the quotation below:

I don’t know where you go now to book a flight. I assume travel agents still do it, but I am not sure. I have no experience of anybody booking a flight. Even my brother went to South America, and even internal flights in South America, he booked online. So you know, you don’t go to travel agents nowadays for that. (Int.16.2.M)

The SSTs used during trips involve a variety of SST interfaces throughout all stages of the tourism experience. These include SSTs such as websites for booking travel, onsite kiosks for ticket collections and purchases, self-scanning machines at airports, parking kiosks and online check-in for flights (See Table 5.1). The most contemporary SSTs include mobile check-in apps, flight booking apps and travel planner apps. For independent travel, participants indicate using SSTs to hire a car, purchase travel insurance and use mobile devices for navigation.

SST usage is also widespread in the hospitality sector with the predominance of SST usage taking place in the planning stage, comprising search and comparison accommodation websites and smart phone apps. Examples of SST usage at hospitality establishments are not as prominent, but still identified. The travel attractions sector is another area of increasing SST implementation in tourism. Participants state that they have interacted with online websites and information kiosks in acquiring information and planning their route in accordance with the travel attractions they wanted to visit. Smart phone apps are popular for consulting travel reviews in virtual travel.
communities and engaging in treasure hunts. Headphones and interactive technologies are used throughout museums and attractions as part of the visitor experience.

Having identified the SSTs discussed by the participants in this research, this section now highlights the findings relating to the first research objective. The discussion of customer motivations was initiated in two ways, both by the participants and by the author. During both Stage One and Stage Two interviews, participants often offered their motivation when they were asked to provide a few examples of their SST usage. They naturally started talking about what they liked about SSTs, and why they would or would not use them. Secondly, in Stage Two, participants were asked specifically to discuss their motivation for SST usage in order to further understand how customers explain their behaviour. At this point, the author encouraged the participants to provide examples of what they meant when they commonly referred to SST motivation in terms of convenience, control, better deals or fun. The Stage Two interviews allowed for more in-depth discussions.

Although during the interviews participants were asked to discuss their motivation for the various SST usages, the discussion was led entirely by the participant, where the author only prompted for further clarification and examples. The motivation labels are either adopted from the exact participant wording of the motivation or interpreted by the author. For example, participants often use a specific word to refer to their motivation, such as ‘convenience’ or ‘control’. Furthermore, when participants suggest that their motivation to use an SST is convenience, for example, they elaborate that it has provided them with an unlimited access to the service and that the service has been more efficient than an alternative channel. This is the manner in which the various motivation dimensions emerged. On other occasions, participants describe that they
have used an SST because it has provided them with an unlimited access to the service, but they do not refer to it as a convenience motivation per se. In such cases, the author interprets this answer as relating to the area of convenience motivation.

Motivation labels are also introduced by the author during the data interpretation to reflect the motivation which participants describe during the interview. For example, participants might suggest that they use SSTs because doing so is fun and entertaining. The author introduces the label enjoyment motivation as an overarching indication of the meaning suggested by participants. The author uses the participant terms for motivation labels as much as possible. The labels of convenience, control, access to lower price, eco-friendliness and forced usage have been provided by the participants, while enjoyment and empathy are introduced by the author. There are seven customer motivations interpreted, which are discussed in this section: convenience, forced usage, control, enjoyment, access to lower price, eco-friendliness and empathy. These motivations are categorised by the author depending on the principal driver of action: utilitarian benefits (convenience, control and access to lower price), hedonic benefits (enjoyment), ethical values (eco-friendliness and empathy) and forced usage.

5.2.1 Convenience

The first motivation for customers to use SSTs is *convenience*. The word convenience/convenient is often referred to when participants reflect on their SST experiences. By convenience, participants mean that the SST mode has provided them with more efficient and accessible service than other available service channels. When participants are specifically asked to discuss their motivations for SST usage, their responses often refer to convenience or describe service situations during which they have been motivated to engage with the SST because of the more efficient and
accessible service that it could provide. In Stage Two, 25 out of the 32 participants discuss the theme of convenience at some stage of the interview which suggests its importance.

The quotation below presents the way in which a participant starts an interview in Stage One, following the initial briefing by the author. This quotation illustrates that, without being prompted, this participant states that she is inclined to use SSTs because they are ‘convenient’. She also provides an explanation of the meaning of convenience to her, suggesting that it encompasses a service that is more ‘efficient’ than other available service channels:

Well, I usually use websites to book my flights. Always! And they are usually very good, very efficient, and I usually check-in online as well. So, that's very convenient when you get to the airport, you don't have to queue, and you already have your boarding pass. (Int.88.1.F)

When participants are asked to discuss their motivation to use SSTs, convenience is generally one of the first motivations cited. Participants’ specific references to the word ‘convenience’, are coupled with terms such as ‘faster’ service (Int.5.2.F), ‘avoid the queue’ (Int.7.2.F), ‘it’s straightforward’ (Int.25.2.M), and ‘I don’t have to worry about an office being open’ (Int.11.2.M). Therefore, the author has interpreted two dimensions of convenience from a customer perspective, namely, efficient service and unlimited access to the service. These two dimensions are discussed separately because participants identify that they achieve different customer goals when referring to ‘accessibility’ and ‘efficiency’.

The first dimension of the convenience motivation is the ability to have unlimited access to the service. This unlimited access motivates customer SST usage for three main reasons: flexibility to get the service when it suits the customer, avoiding the
inconvenience of going to an offline office, and making bookings from the comfort of their home.

The unlimited access to services which SSTs offer is particularly appreciated by time-poor participants as evidenced in the following quotation: ‘And when you don't have enough time to go to a travel agent’s, that [online booking] is the best way to do it really’ (Int.1.1.F). The types of busy lifestyle referred to in this context could include a busy work schedule or a busy family life. For example, the busy work life is suggested by a participant as a context in which to use SSTs with a convenience motive: ‘I work quite late, so I can use it, technology is always open. So, I can buy or book a room on my own and I appreciate that.’ (Int.17.1.F). For example, below is an excerpt illustrating a participant’s response to being asked to identify his motivation to use SSTs. The definition of ‘convenience’ as unlimited access to the service becomes evident:

*Interviewer: What are your main motives, or why do you use technology for travel purposes?
Participant: I would say primarily for convenience. I can book the ticket in my time - it can be the evening time, Sunday, whatever. I don’t have to worry about an office being open... I can do it on the weekend and that doesn’t affect my work. (Int.11.2.M)*

Another illustration of achieving flexibility when using SSTs is provided by a participant who states that she has a full-time job and then a family to look after in the evenings. She appreciates the flexibility that her smart phone provides in terms of searching for travel information, as illustrated in the following extract:

*You can do everything anywhere, like. Even if you get free time on your break, you can do it on your break, you know. This is again about the time, you know, it’s not that you have to actually sit at home there and do a big search. (Int.27.2.F)*

Organising travel often involves a group of people or a family who need to reach a decision together. In such situations, when people have to manage busy schedules, the unlimited access to a service provides the flexibility they need:
Like the last time I was booking that flight to London, I wanted to be able to check with my wife that it was OK and I would go on such a date and come back on a certain date, and was that OK with her and had she anything else planned... 10 o’clock at night when the kids are in bed, went online, checked it, called her over and said: ‘Listen, how does that look?’ (Int.16.2.M)

The unlimited access to services also provides for customers the opportunity of avoiding the inconvenience of having to go to an offline service office. The unlimited access to services that online SSTs offer is suggested as a motivation by a participant who indicates that he lives at a distance from service offices:

It is convenient. I have used it before, I am OK with booking tickets and things like that. But, ahm, it was convenient, especially when we don't live in the city, ahm, travel agents aren't around; it is very handy. (Int.48.1.M)

Similarly, in the quotation below another participant states unlimited access to the service as being his motivation, since it saves the time required to go to service offices:

Time is probably the biggest factor for me, ahm, not having to go somewhere to book something and then come home again. Ahm, that’s the main for me. It is time and accessibility; how accessible stuff is. (Int.19.2.M)

The convenience that online SSTs offer is highlighted by the opportunity they provide to obtain services from the comfort of home as evidenced in the following quotations:

You don't have to go anywhere; I can just be in my pyjamas and do it [laughter]. (Int.65.1.F)

It’s quicker, it’s easier; you can do it from the loo if you wanted. (Int.1.2.F)

I think clearer when I am on my own. No one is explaining to me which [travel] offer is better and which is worse. I have the opportunity to think about which offer is best for me when I am on my own. (Int.5.2.F)

The motivation of gaining unlimited access to services is further emphasised by the development of mobile technologies which provide access to the internet on the move.

This is particularly appreciated at the travel destination for gaining timely information facilitating a change of plan. With the help of mobile technologies, customers are able to conveniently access services and make changes to original bookings. One participant states that they have travelled to a destination which they found uninteresting and consequently decided to alter their travel plans, as is evident by the following quotation:
The same day we changed our plans and we there and then, the same day, we booked a different hotel at a different place, in a different city. (Int.1.2.M)

The quotation below illustrates the participant’s convenience motivation to use her mobile as a source of travel information while on the move:

I have to change buses and trains, and I don’t know the timetables... and in a second, I am online and check the timetable and when it is leaving. (Int.22.2.F)

The second dimension of the convenience motivation relates to efficient service. The question of increased efficiency is expressed in terms of avoiding the queues at alternative service channels or reducing the ‘hassle’ (Int.21.2.M) associated with obtaining the service. In this way, the customer saves time and effort in comparison to opting for an alternative service channel. Below is a participant’s reflection on her motivation for opting to use an online booking engine because she could compare prices more conveniently:

I actually book pretty much all of my flights online, and I just find that it's a lot more convenient [than travel agents] because you can compare prices very quickly. And I usually use sites like [booking engine X], so I can look at a bunch of different airlines at the same time, and see which are the cheapest. (Int.119.1.F)

In the above excerpt, the participant indicates that online booking is ‘more convenient’, which is suggestive of a comparison process between this SST and other service delivery modes. This comparison of the SST channel may be traced throughout all the other quotations offered as an illustration of this dimension of convenience. For example, the following two quotations clearly describe the convenience motivation, in terms of achieving a more efficient service, in comparison to waiting in a queue for a personal service encounter:

I prefer to check-in online, so I don't have to queue in lines. The less queuing I can do, the better. So, if that means automated services, then great. I much prefer that. (Int.51.1.M)

We booked the National Historical Museum. When you book online before you go, you avoid all queuing, which is fantastic. (Int.18.2.M)
Reducing the time spent in queues by using SSTs is also regarded as convenient because it makes the service process more efficient and reduces the customer effort to obtain the service. The following quotation illustrates the customer preferences for SST usage in this situation:

I find it [ticketing kiosks] more convenient because often, particularly in places like London, you have a lot of foreign nationals who, foreign travellers/tourists, who wouldn’t be able to understand some of what is going on in the kiosk. So they would go to the person at the counter, but the queues are massive. It is so much quicker just to go stick in your card and press a few buttons. (Int.23.2.F)

The above two quotations highlight not only the time savings that the participants have realised, but also the reduced hassle for them in obtaining the service (‘go stick in your card and press a few buttons’, Int.23.2.F). The two quotations below illustrate the participants’ reflection on their motivation to use smart phone/kiosk air travel check-in because it ‘takes so much of the hassle out of travelling’ (Int.21.2.M):

I can download the boarding pass on to my iPhone beforehand and then when I get to the airport, I just hold my iPhone under the scanner. You don't need to print anything, you don't need to go to the desk to pick up your boarding pass, so it saves time, and it means you have one less item to carry. It's quite handy. (Int.80.1.M)

It takes so much of the hassle out of travelling, you can just walk into an airport and, you know, swipe your passport through a machine and get your boarding pass. (Int.21.2.M)

In summary, this section has presented the convenience motivation behind SST usage. The participants’ views of this motivation include the dimensions of unlimited access to the service and more efficient service. On some occasions, participants attribute a nuance of control to the word convenience as a motivation, enabling them to get exactly what they want and how they want it. This is evident in the following two quotations from answers to the question ‘What motivates you to use SSTs?’:

Ahm, first and foremost, it would be the convenience part. That is definitely. It offers you a lot of convenience, you are sorted for your travel or your holiday whatever, you have everything in place. (Int.7.2.F)
I suppose it is convenient. Like you can sit down some evening and book your flight and you know, you know exactly where you are gonna be sitting on the plane, you know. And you know exactly what time. You know, it is all there in front of you. (Int.24.2.F)

The control motivation is examined in Section 5.3.3. The convenience motivation suggests that the customer willingly engages in SST usage because it suits them. However, this is not always the case; at times, customers suggest that they have used SSTs because of a lack of other options. The following section discusses the motivation of forced usage where the customer does not use the SST because it suits them, but because they feel compelled to do so.

5.2.2 Forced Usage

The previous section has revealed that customers are motivated to use SSTs because it is convenient for them. In addition to this, however, the findings suggest that customers may engage with SSTs in situations where they feel compelled by circumstances, rather than driven by their own convenience. Even participants, who perceive SSTs as beneficial, may on occasion use SSTs despite their preference not to. For example, in 23 out of the 32 in-depth interviews, the theme of forced usage is present in the discussion of some SST usage situations. On numerous occasions, participants state that they ‘had to’ use a specific SST, although they would have preferred another service channel. Participants suggest that their motivation to use SSTs is ‘not always by choice’ (Int.16.2.M) and ‘I am being forced to use them [SSTs]’ (Int.13.2.M). The pronounced expression of ‘have to’ and ‘forced to’ provide the label for this motivation as *forced usage*. Participants suggest that they have engaged in SST usage in order to avoid any drawbacks for them such as, for example, not being able to access the desired service or accessing the service at a price premium when avoiding SST usage.
The term forced usage was provided unprompted in the following interview excerpt which clearly illustrates this motivation:

*Interviewer:* And so we have talked a good bit about usage of technology during your travels. Can you just reflect a bit more on what is your motivation then to use those technologies?

*Participant:* [silence] Well, I would say, I am not motivated to use them, it is a case of having to use them. I am being forced to use them because there is no alternative. Now there are still travel agents, a number of them in Ireland. But I suppose you now have this perception that from the internet you are going to get a better deal by booking it online yourself. Because obviously if you go into a third party to do it, they are going to get a commission, so you are going to be charged a higher price. So you are being forced down the road of using self-service technologies for tourism because you feel if you don’t do it, you are not going to get as good a price or in some instances there is no other format to book because they don’t have an office, or they don’t have another form of contacting them. (Int.13.2.M)

It becomes obvious from the excerpt that this participant defines his motivation as ‘not motivated’, but ‘forced’ to use SSTs in order to be able to access the service or avoid paying a higher price. It may be observed that the lower service price is not perceived as a benefit, but rather as a condition forcing SST usage. Therefore, depending on the viewpoint of the customer, a cheaper SST service may stimulate a forced usage motivation when the customer is reluctant to interact with the SST. Furthermore, the above participant highlights a perception that he is getting the service at a cheaper price online which does not mean that it is necessarily the case.

Participants further illustrate the forced usage motivation by describing how customers may be at a disadvantage if they avoid SST usage. For example:

I must admit I do prefer the days when it was you go into the travel agent's and book your ticket. But it is so much more expensive to do that. It is much cheaper to book it online, you know. So, I do prefer, I am old enough to remember pre-technology and, you know, before we had the internet and mobiles and everything. So, I must admit, I do prefer the older ways, but nowadays it is quite old. So, I go with it, you know. (Int.61.1.F)

I suppose, the exact point there, if you don’t rely on self-service technology, you are at a disadvantage waiting for, it will be a longer length of time before you get the necessary information or get the service or the product. Self-service technologies are definitely leading the way there. (Int.37.1.M)

The above excerpts emphasise the customer position of not being motivated to use SSTs because of the benefits they offer, but rather in order to avoid the disadvantages of
obtaining slower or more expensive service in other service channels. This illustrates a situation where the customer is pushed to use SSTs by the disadvantages of other service channels, rather than being pulled by the advantages of the SST channel. This is in contrast to the convenience motivation where customers are attracted to SST usage because of the relative advantages they offer over other service channels.

The forced usage motivation for SST usage is further evident in customer statements that SSTs are ‘inevitable’ (Int.54.1.M) and inconvenient to the customer. It emerges that some participants hold the view that the service provider dictates the service design, and customers have to follow instructions. In effect, the SST is introduced to suit the service provider and not the customer. A participant stated:

Over time they [service companies] are going to push it [SSTs] on you, so you better be up to speed on it. (Int.37.1.M)

In the discussion of a participant’s unpleasant SST experience regarding a toll bridge fee collection, he suggests that the technology is forced on him by the toll bridge owner:

Participant: Technology is first class for the owner of the toll bridge, but it is just a pain for the customer who has to use it.  
*Interviewer:* OK, so, what exactly causes you the pain?  
Participant: Well, if you forget to pay the toll, you are gonna get a fine and the fine is immediate, within 24 hours. You are stuck with a fine and a notification. (Int.59.1.M)

The customer usage of SSTs, despite their unwillingness to do so, is often explained by the ‘gate-keeper’ function of SSTs, that is, they are the means for access to the desired service. In this situation, even if the SST usage is not desired, the customer engages with it unwillingly. This presupposes a separable service where the core service benefits act as a motivation for the customer SST usage. SST technological and process issues, such as technology or customer failure, are found to be a contextual characteristic of SST usage situations motivated by forced usage. One participant, who expresses
negativity towards using an airlines’ website, comments: ‘I booked this flight today despite all of that [website issues], not because of it.’ (Int.96.1.M).

Although the SST is not perceived as beneficial, the customer may be motivated to use it because they expect to be compensated for the inconvenience by other aspects of the service. An illustration of the ‘gate-keeper’ function of SSTs, and the customer’s need to overcome the SST in order to access the service, is provided in the following interview excerpt:

It’s shocking that they [a hotel] don’t have a better website. But I think they don’t need to because people want to stay there so badly that they will put up with the poor reservation system because they just want to stay there. It is a very good location... the hotel is worth the effort. (Int.14.2.F)

Customer drawbacks from avoiding SST usage may not only relate to the present moment, but also to future service encounters. Since SSTs are viewed as part of the technological development of society, some customers express the pressure to keep up-to-date so that they do not ‘get left behind’ (Int.19.1.F). Therefore, the pace of technological developments in society may re-enforce the forced usage motivation for reluctant users to adopt SSTs. These customers fear that they would not be able to access services in the future if they do not learn to interact with SSTs now. This view is most dominant amongst the more mature participants who claim that they did not grow up with technology and hence have had to make an extra effort to adopt it. One woman aged 65+, who booked her flight online with the help of her family, engages in the following discussion about making the move to buy a home computer:

Participant: Well, I am going to have to get interested [in technology], I think.
Interviewer: Have to?
Participant: Because the world is going in that....
Interviewer: So, you mean by 'have to' that you are not particularly interested, but you just need to?
Participant: Yes, yes. I feel, I have to sometimes, but I don't, I would like to catch up.
Interviewer: OK, so, you feel pressure? Would you have been in a situation that, kind of, made you feel that you need to catch up or you are under pressure from a company?
Participant: No, not really. Where you go everything is so technological if you like. I think, I must get to know how to do this; otherwise, I am going to be really in trouble. (Int.26.2.F)

It becomes obvious in the discussion above that the customer interprets the abundance of technology in modern life as a potential threat that she needs to cope with. The following quotations are from three participants aged 45, 55-64 and 65+, respectively. In line with the previous interview excerpt, these participants express the necessity to interact with SSTs because if they did not, they may have difficulty accessing services in future. It is observable that all three quotations contain the imperative ‘I have to’ which implies the forced usage motivation:

I am part of nowadays generation [laughter]... I have to dance to the rhythm of the present evolution. (Int.12.2.M)

You have got to do it, so. I have to keep young [laughter] (Int.33.1.F)

I have to jump on the band wagon. (Int.26.1.F)

The forced usage motivation, although it is defined as a de-motivation by participants, triggers SST usage in order to avoid drawbacks rather than gain benefits for the customer. This customer perspective is expressed in the imperative verbs used to describe the SST usage situation. Customers perceive their use of SSTs as not by choice and not for their benefit. SST usage with a forced usage motivation is characterised by a customer perception of powerlessness in the face of the service provider dominance of the service design. In contrast, SSTs may be used with a customer motivation to exercise control over the service transaction. The control motivation is discussed in the following section.

5.2.3 Control

The third motivation for customers to use SSTs is control. This motivation is of high significance to participants which is suggested by its presence in 29 out of the 32 in-
depth interviews in Stage Two of the research. The word ‘control’ is used by participants (for example, Int.14.2.F; Int.19.2.M; Int.27.2.F) with the suggestion that they could deliver the service independently and also reduce the risks of uncertain service situations. On occasions, these motivation dimensions are provided by participants, even though the word control may not be mentioned specifically. Therefore, these are interpreted by the author as the two dimensions of the control motivation and are discussed in turn in this section.

The control dimensions of independent service delivery and risk reduction are clearly expressed by a participant in the following interview excerpt:

*Interviewer:* So you don’t feel in any way burdened with all that extra responsibility to you as a customer to get things done online...?  
*Participant:* No, I like the control thing over it. I like being able to know that this is what I am doing and I know what I am doing and you know like... Ahm, when you are booking a hotel, you know, you are booking exactly what you want and you have the choice to go and leave [the webpage]. Whereas if you are going somewhere in the car and stop ‘OK. I will stay here tonight’. There is a nice aspect of that as well, ‘this place looks nice and we will pop in there’. That’s fine when you are on your own, but when you have kids with you, you need to know you have somewhere to stay that night, you know. (Int.19.2.M)

This excerpt features control as customer independence or self-reliance to deliver the service as they wish, emphasised in the statements ‘I like being able to know that this is what I am doing’, and ‘you are booking exactly what you want’. The second part of the excerpt identifies the risk reduction dimension of control as relating to reducing the uncertainty of not having accommodation for the night, that is, not receiving the required service.

The independent service delivery dimension may motivate customer usage of SSTs because of the lack of trust in the service employee/company. Customers believe that they can deliver the service better than the service employee, or they do not believe that the employee works in the customer’s best interest. The independent service delivery dimension of control may be observed in participants’ expressed desire to make travel
choice decisions on their own and without the interference of intermediary ‘consultancy’ (Int.3.2.F). For example, the following quotation illustrates that organising a trip independently online is motivated by the opportunity to deliver a better service via an SST:

*Interviewer: Can you reflect a bit more on what would be your motivations, or why do you use technology for your travel purposes?*
*Participant: I think it is a control issue that I can be sure that I am getting what I think is the best deal...With technology I have a great opportunity to browse everything and look at all the little details before I purchase. Whereas if I use a travel agent, it is very annoying having to get back 10 different emails, ‘OK can you check that?’ and ‘Can you check that?’ When I first started in the job [marketing manager], I used travel agents because I didn’t know where I was going and what I was doing. But now that I know what I want, I think I am more confident travelling when I know I have booked everything myself online (Int.14.2.F)*

There is a noticeable connection between trust in the service employee and the independent service delivery dimension of the control motivation. Furthermore, the participant elaborates that her increasing competence and belief in her own abilities to deliver the service independently has been a factor boosting her control motivation. When customers feel that they trust themselves more when using SSTs than when the service is delivered to them by a company employee, there is a pronounced control motivation for SST usage. Another nuance of distrust in the employee is expressed in some participants’ statements suggesting that the service employee may not have the customer’s best interest at heart. The following interview excerpt is indicative of distrust in the personal agent and how it has triggered SST usage with a control motivation:

*Interviewee: Why do you use them [online booking sites]?
Participant: Well, it’s quick, isn’t it? And I’ve got control over it. So let’s say if I search for a flight, I know exactly what I want... Whereas if I was to do the exact same thing over the phone, I don’t know if I could trust them to be honest. It’s almost like you have it in black and white and you can, you know, this is the real information there and it’s live information, which means I know that if I check tomorrow maybe the prices have dropped again, but at least it’s my responsibility to do that. (Int.27.2.F)*

The apparent distrust in the travel agent coupled with the confidence in the customer’s ability to deliver the service are again emphasised as conditions contributing towards
SST usage with a control motivation. For example, the excerpts below are from participants’ reflections on booking travel and tourism services online and not at the travel agent’s:

You feel more self-reliant too [booking online], because with a travel agent they might be asked to push a certain hotel or chain, or push a certain airline and so this way you can figure out yourself what is the best deal. (Int.31.1.F)

I like the fact that you can find out how much it’s gonna cost you. Ahm, that I find I prefer it to going into an agent because often they are only trying to sell you a certain range. Whereas if you know what you want, you can go straight to the internet and do it. (Int.77.1.F)

It becomes obvious in the above quotations that the travel agent is viewed as having a different agenda than the customer, primarily to promote specific products; hence, the SST usage with a control motivation is evident. The distrust in the service provider may go to an extreme at times as witnessed in an interview excerpt offered below. This participant expresses his doubts about the security of his personal data when booking over the phone as compared with online:

Participant: I do, like, I feel more comfortable doing that [online booking] than, you know, giving it to someone over the phone.

Interviewer: So, what do you mean over the phone? Would you not trust them?

Participant: Ahm, well, when you use it online, when you input the credit card information, there is less chance of, like, it being seen by someone [who may take advantage], that they can note it down and then... You know, even just someone in a job, that's a turn over job, where they come in and they don't really have any duty to stay there long. So, they can come away with a lot of credit card numbers and no one would know, and they would shop from some [credit card accounts]. (Int.121.1.M)

Although the above excerpt represents an extreme case of distrust in service employees, it illustrates how this participant has a greater trust in technology, in terms of security, than in the personal handling of payment data.

The second dimension of control is the risk reduction in uncertain situations. In the context of tourism, customers often find themselves in an unknown environment and the ability to gain control over such uncertain situations appears to be valued by participants. In their desire to avoid any unpredicted events during travelling, some
participants engage with SSTs to pre-plan as much as possible. The quotations below are from participant discussions of their motivation:

But you know I am a scaredy cat when it comes to travel with all the things that can go wrong, like. So it’s good that I am kind of able to arrange so many things before I even leave my house. (Int.19.2.M)

...you have everything in place. And for somebody like me, who likes to be more prepared than be surprised...you avoid the risk factor...in a place where I don’t know the language and the place and all that, so you are prepared. (Int.7.2.F)

Therefore, the opportunity that SSTs provide for obtaining information and pre-booking/pre-planning services motivates customers to use them in order to reduce the ‘risk’ (Int.7.2.F) that ‘things can go wrong’ (Int.19.2.M). The control motivation dimension of risk reduction becomes evident in the following participant’s reflections on how using a GPS makes him feel ‘comfortable’:

I suppose, what would the word be...comfortable, I suppose, that I got the right directions rather than just finding my way early this morning to an airport. It can be quite stressful in the traffic if you are not sure where you are going. (Int.3.1.M)

It becomes obvious from the quotation above that when customers envisage stressful or risky events during travel, they are motivated to use SSTs to make the situation more predictable, and thus less stressful. Therefore, the control motivation relates to the customer desire to preserve an element of safety by reducing the novelty experienced during travel.

SSTs are also preferred for the purpose of gaining detailed information and reducing the risk of any disappointment with a service. The following quotation reveals the desire of this participant to be in control of her hotel stay experience and how the hotel websites facilitate this:

It is awesome that on certain hotel websites, you can do a tour of the room without actually being there. So you can already judge if you will be comfortable or happy there. You know exactly what is going to be available to you, and what you need to pack. (Int.23.2.F)
The above quotation also implies a pleasurable, ‘awesome’ aspect of being in control and ensuring a better service experience. The following section presents the enjoyment motivation, which overlaps in certain places with the enjoyment from being in control of delivering a more satisfying service experience.

5.2.4 Enjoyment

The fourth motivation associated with SST usage relates to the pleasure derived from SST encounters. Although this motivation does not receive as much discussion by participants (present only in 6 out of the 32 in-depth interviews) as convenience and control, it does indeed motivate SST usage. Specifically, when participants are asked to discuss their motivation, they gravitate more towards the functional benefits of SST usage, such as convenience and control. The previous section has identified that there is a pleasant aspect to being in control over the service, and thus delivering a more enjoyable experience. When reflecting on their SST usage experiences, some participants highlight the enhanced enjoyment of the service experience because of their interaction with an SST. This view that SST interaction is more enjoyable than personal service delivery is suggested as a motivation in the following participant statements: ‘I like technology and I like to click buttons [laughter]. It is more interesting for me to use machines than to talk to people.’ (Int.5.2.F); ‘I booked everything all online... I am a bit of a geek [laughter].’ (Int.117.1.F). When asked about his motivation to use SSTs, a participant explicitly provides an answer that his motivation for using SSTs was ‘fun’ and that he ‘enjoys using them [SSTs]’ (Int.8.2.M). Therefore, the author has chosen to label this customer motivation as enjoyment.

The booking and researching of a destination online is often found to be motivated by enjoyment. For some customers, this stage of the travel experience has become
synonymous with using SSTs because of the convenient access and various offers and price comparisons available, as identified in the previous sections on control and convenience motivations. Furthermore, some participants articulate the sheer enjoyment motivation alongside the more functional motivations for using SSTs in the organisational stage of their travel. Organising one’s own holiday may be a fun activity in itself, and SSTs provided this opportunity. One participant even aligns SST usage with the enjoyment of discovering and learning about the place that he is going to visit. An excerpt from this interview is offered below:

Participant: Ahm, I think overall it is much better than packaging through somebody else. And it’s sometimes a bit of a challenge, but it is fun.

Interviewer: It is fun?

Participant: Fun, yes. F. U. N.

Interviewer: Tell me more about this.

Participant: Ahm, just that we enjoy using the websites and, ahm... And the fact that they can lead you on to a lot of other things for bookings. For example, we went to Europe several times and you can find out about trips on boats, the Seine in Paris, excursions to places, restaurants and other sorts of things. You have far more things offered to you than an agency would do; a much wider range. But we also enjoy clicking up on something that is suggested, ‘Oh, never heard of that place!’ Then look it up on the website and find out more. So it’s really exploration, which is what I am interested in. (Int.8.2.M)

Customers may be motivated to interact with SSTs in planning their travel because this provides them with a ‘happy’ feeling of anticipating a pleasant event. There is an element of extending the enjoyment from the travel experience to the SST usage involved in the organisation stage. For example, these are the comments of a participant relating to her motivation to use online booking sites for travel bookings:

I find it very exciting. You are organising a holiday for yourself... I love to organise my holiday myself; to look at flights, to look at hotels, the photos, to read about the places I will go to. I find it very... It makes me feel happy. (Int.30.2.F)

However, enjoyment does not motivate SST usage in the travel planning stage alone. The following excerpt illustrates how a participant was able to become fully immersed in a tourist attraction experience with the help of a set of headphones because firstly,
they isolate her from the surrounding aural distractions, and secondly, the staged sound effects have made the scene more real:

> When I was in California, ahm, in San Francisco, we went to Alcatraz Island and we had headphones for the tour, so instead of going in a group, so you just go off by yourself and press the button with the number and listen. And I liked that a lot better than listening to somebody because, ahm, I don't listen half the time when someone is talking, [laughter] And I don't like being in a group. I would rather be on my own and listen to someone else speaking and having it, kind of, more real because they put, like, sound effects and... So, I liked that. (Int.40.1.F)

The above excerpt suggests that the SST option is perceived as more enjoyable in comparison to the personal guided tour option. The SST usage with an enjoyment motivation is also evident in the following description of touch screen technology usage in a museum:

> It was all touch screens [at the museum], you know. So ideal little toy for the children to play with, there was a PC in every room [laughter]. But it was a great way of accessing information quickly, like, on the various parts of the ship. (Int.19.2.M)

The excerpt above draws a connection between child’s play and SST interfaces. Furthermore, the game-like aspect of SST usage is offered in parallel with the functional aspect of independent access to information by the customer. Therefore, customers may be motivated to use SSTs because of the entertainment aspect similar to electronic games.

The enjoyment motivation appears to be very salient in the tourism context. Since tourism is meant to be an enjoyable activity, the ability of SSTs to make the tourism experience more enjoyable is an important finding. This is most evident in the tourism attractions sector where SST interfaces have introduced fun and playfulness as well as a richer experience of the tourism attraction theme and setting. SST accomplishment experiences may also be associated with the lower price of SST options, explored in the following section.
5.2.5 Access to Lower Price

The fifth motivation associated with SST usage is access to a lower price. This is an important SST usage motivation which is suggested by the observation that it is present in 28 out of the 32 in-depth interviews. Customer reflections of their SST experiences often provide accounts of engaging with SSTs for the reason that they offer access to ‘cheaper’ services, ‘better deals’ and ‘lower prices’. When discussing their motivation, participants use terms such as ‘price’ (Int.4.2.M; Int.21.2.M), ‘money saver’ (Int.6.2.M), ‘discounts’ (Int.7.2.F), ‘cost savings’ (Int.11.2.M), ‘cheaper’ (Int.16.2.M; Int.17.2.F) and ‘cost factor’ (Int.25.2.M). These words describe a motivation in terms of obtaining a better deal or interacting with the channel which is less expensive for the customer. Therefore, the author has chosen the label access to lower price for this motivation and interpreted two dimensions of it: lower purchase price and lower channel price.

The first dimension of the access to lower price motivation is lower purchase price, meaning that customers may obtain the service at a lower price when they use an SST. Participants who identify the lower purchase price motivation often suggest that they had allocated a limited budget for the purchase of the specific service. Furthermore, they were prepared to accept a certain level of discomfort/less flexibility because of the lower purchase price, but not risk online fraud. In actual fact, the difference between the lower price motivation and the forced usage motivation is similar to the difference between the expressions ‘I want to’ and ‘I have to’.

The lower purchase price motivation to use online travel booking websites is clearly articulated in the two excerpts below which relate to participants’ views on their motivation to use SSTs. It also becomes evident that these participants are motivated by
the lower price they can get online because it helps them achieve their goal of fitting into their limited budget for travel:

And price I suppose, there is no two ways about it. Pricing, I would be at an expensive stage of life with the children. And so therefore, it is where price comes into it. If I can get something, a reasonable package, not a package, but a reasonable trip or something, I would look at it. (Int.9.2.F)

I remember one summer just after we had got married and couldn’t afford to go anywhere, and it was a horrible summer. We literally, the only time I’ve done in my life, we literally went online surfing, where is cheap to fly to where we could get a hotel... So we ended up going to Seville for 10 days and it was 5 star hotel and if I remember right, at 40 pound per night for the room. It was spectacular! (Int.16.2.M)

Customers are aware that in order to obtain the service at a lower price, they may need to compromise on some of their requirements. The interview excerpt below implies that the customer needs to be flexible about potentially getting a less convenient service:

I hired a car over the internet as well, ahm, to hire a car here [Airport X] is very expensive, so I found using the internet that I could hire a car for cheaper in [City Y], you know, which is nearby here. So, I hired a car that way. (Int.50.1.M)

Customer flexibility in terms of service requirements is brought to the fore by participants as a condition relating to the lower price motivation. For example, the following quotation illustrates how a lower purchase price motivates a participant to cut down the cost of his flight ticket by being flexible:

If it keeps the flight cheap for me, you know, I am not going to pay [to choose] for my seat, I am not going to bring the extra bit of luggage, I am not bringing a set of golf clubs, you know, I am cutting down on all the extras where possible. (Int.16.2.M)

On a number of occasions, SST users motivated by lower purchase price suggest that the SST encounter may require more customer effort. This is evident in the following statement by a participant reflecting on his motivation to book flights and accommodation online: ‘Ahm, see I think it is cost. I’d like to say it is convenience, but it isn’t; you’ve to sit down and spend hours’ (Int.16.2.M). The customer awareness that they need to expend additional effort in order to obtain the cheaper price is illustrated in the excerpt below:
I would shop around. And I put the same dates into two or three different sites... In a competitive world, particularly hotels and flights, where you have very high levels of competition and very high choice to the consumer, then you really do get amazing value if you take the trouble to look. (Int.11.2.M)

Although lower purchase price motivated customers are prepared to compromise on flexibility and effort, they are not ready to risk fraud because of the lower price. One participant (Int.8.1.M) identifies his motivation to purchase airplane tickets online because of the lower purchase price, but he also suggests that he would only pay online to companies that he knows. Similarly, another participant who books online for price savings suggests that she would want to know that the site she uses does not pose any risks:

I mean sites like [site X] are brilliant like, international site, well-known whatever. So you don’t expect to be cheated on a site like that. But for example, there are some dodgy sites which you don’t know or use them for the first time, then of course you want to actually contact the hotel directly. (Int.3.2.M)

The theme of trusting well-known companies is further elaborated by a participant in the following excerpt:

If I can trust the website, for example, and I know the website, it’s a huge company and I know they can’t afford robbing or stealing just one customer because it will be over for them... But for example, if it’s a small restaurant I don’t know or a single hotel I don’t know, I won’t pay [over] the internet no matter if it’s by smart phone or with my computer. It’s just the fact that I know the website, the website is part of a big company, I can go. If it’s a single hotel, I prefer calling and then paying once there. (Int.31.2.M)

It becomes evident that customers may trust a well-known service provider because they feel they are not as vulnerable to being ‘scammed’.

The second dimension of the access to lower price motivation, that of lower channel price, is also expressed in participant reflections of their SST usage. Although this dimension is not as pronounced as the lower purchase price, it becomes evident when customers make their choices regarding which service channel to interact with. When the SST channel offers cheaper access to the service in comparison to the other options, such as telephone or going to the physical office or premises of the company, customers
engage with the SST with a lower channel price motivation. The interview excerpts below illustrate how the cheaper online channel has motivated these participants to use it:

I decide, for example, when I was booking this holiday in Greece, I didn’t have a lot of options, so to say. I didn’t want to start calling hotels in Greece because it is expensive and the internet is for free, so you go on the internet. (Int.3.2.F)

We think it’s crazy to go to the supermarket because you pay for the petrol to go in the car, you spend two hours going around and then the petrol to come home and then you have to unpack it all. For 5 pounds, they bring it all to me and I just sit in my chair, put it in my fridge, finished! (Int.52.1.M)

In addition to being driven to achieve service benefits and avoid drawbacks, participants in this research suggest that they may be driven by societal values such as saving the planet and being nice to others. The SST usage motivations of eco-friendliness and empathy are discussed in the following two sections.

5.2.6 Eco-Friendliness

The sixth motivation for SST usage is eco-friendliness. This is not a predominant motivation for SST usage as it is present in only 4 out of the 32 in-depth interviews. The motivation to engage with SSTs in order to protect the environment is referred in terms such as ‘eco-friendly’ (Int.7.2.F) and ‘environmental concerns’ (Int.21.2.M) by the participants. During the discussion of participant motivations to use SSTs, the eco-friendliness motivation is named alongside other reasons to engage with an SST. In fact, this motivation becomes evident in the general customer reflections of their experiences of SSTs. Interestingly, some participants associate smart phone SST options with being eco-friendly and saving paper. One participant comments on the option to get his boarding pass on his mobile in the following way:

I think anything that makes the process less complicated is welcome as far as I am concerned... But as well as that there are also environmental concerns like I mean the idea of not using paper is attractive to me. So if I can get away without printing my tickets out or my boarding pass out;
if I could just have it on a phone and let them scan a code on my phone or something that would be ideal for me. I think that’s an excellent idea. (Int.21.2.M)

A similar response is provided by another participant when asked to discuss the usage of mobile device SSTs. She associates mobile phone movie ticket booking with the motivation to be eco-friendly:

I think they [mobile phones] are kind of adding to the convenience, they are making it more handy, that you just carry it in your pocket, that if you book the ticket and they kind of send you an SMS. Like in the movies thing they send you the SMS and you can just show it. It is eco-friendly also I would say. You don’t need that print out, so you know. So I am more into saving paper and all of that. (Int.7.2.F)

The above excerpt demonstrates how the eco-friendly motivation is identified by this participant in the course of discussing her convenience motivation for saving her boarding pass on her mobile. Similarly, the excerpt below illustrates how the eco-friendly motivation emerges alongside the discussion of access to lower price motivation when booking holidays online:

Whether it is booking a car park, I think the whole journey throughout could be done online as a self-service, which on one side is good because it cuts out the middleman. And obviously you get a discount every now and then. Ahm, on the other hand it saves a lot of paperwork. It saves a lot of paper, if you want to be green. (Int.1.2.F)

The eco-friendly motivation becomes evident in one participant’s account of how he made the reservation for his flight and chose to get the boarding pass on his smart phone:

You check-in online and then you receive a paper with your name, the number of the flight and stuff, like, and a flash code. After that you can choose, for me being quite concerned about all the eco-friendly problem, I keep it on my smart phone and if there is a flash code, then I go to the terminal and to the check-in and just show my ID. (Int.31.2.M)

It becomes evident that participants link the convenience of mobile devices for storing tickets and an eco-friendly motivation. A participant also suggests that receiving bills online is ‘green’ (Int.55.1.F). When the author prompts her to explain what she means, her response is descriptive of the eco-friendly motivation to save paper:
It’s green... Oh, well, I mean you don't have as much paper. You don't have printed receipts all the time. Even stores, I have now been asked, like, would you like us to email it to you instead of print it off, so...So, you don't have to waste so much paper (Int.55.1.F)

The theme of being eco-friendly is discussed further by a participant who suggests that being environmentally conscious is a value of the younger generation (the participant is aged 25) and service companies are responding to this by implementing more technology in their operations:

[Phone operator X] and your bank saying, we will send you statements online or to your phone. I have my bills to my phone every month instead of sending me out paper, it saves trees. And it says it at the bottom. I think it is more down to government policy than the actual company trying to save trees, like, I don’t, I wouldn’t believe that [Phone operator X] are set out to try and save the world. But to try, and I suppose my generation and the generations to come after me will be more aware of what they would do to save the planet. So companies are trying to maintain that conscience, a socially conscious image. (Int.23.2.F)

The above excerpt reveals this participant’s perception that the service company is only performing a marketing exercise of maintaining a good social image or complying with government policy. Even so, she is motivated to support the ‘green’ agenda because it is important to her and her generation.

The eco-friendly motivation is not provided by participants as a leading motivation to use SSTs and only a few examples are identified. One participant suggests that the eco-friendly feature of SSTs is something that service providers need to develop:

I think, they [airlines] need to start incorporating it into your phone because everyone has got these smart phones nowadays, and you should be able to use your boarding pass, I find, on your phone instead of printing it off. It is something maybe that they need to develop, you know. Ahm, using less paper and stuff, because you don't need to print anything off. (Int.79.1.M)

Even so, these examples involve the latest SST mobile interfaces, which suggests that newer SST options may further enhance the eco-friendly motivation. Another motivation for SST usage relating to societal values is the empathy motivation which is discussed in the following section.
5.2.7 Empathy

The final motivation associated with SST usage is empathy. The Stage One and Two interviews provide numerous participants’ accounts of engaging in SST encounters with the motivation to help others who may be experiencing issues with SST usage, such as elderly people, tourists, and novice users. All participants who discussed situations of assistance with SST usage suggested some level of empathy which motivated their actions. Interviewees empathise with customers whom they view as being disadvantaged or discriminated against. Participants describe people who may be experiencing difficulties with SST usage as appearing ‘stuck’ (Int.4.2.M), ‘struggling’ (Int.4.2.M; Int.7.2.F; Int.35.1.F), ‘lost’ (Int.9.2.F), ‘frustrated’ (Int.11.2.M; Int.20.2.F) and ‘flustered’ (Int.20.2.F). These descriptive adjectives suggest that participants empathise with such customers. This motivation to interact with SSTs out of concern or obligation for other customers is termed empathy by the author. The empathy motivation is not identified by participants when asked to discuss their motivation for SST usage because technically they have interacted with the SST on behalf of another customer. Only on one occasion, a participant suggests that they used an SST because they empathised with employees in a supermarket and wanted to relieve their labour.

Participants suggested that there are ethical norms of helping the elderly, caring for parents and grandparents, and assisting vulnerable people. As some participants put it: ‘it’s a natural thing to do’ (Int.4.2.M) or ‘as a human, it is our job to help others’ (Int.10.2.M). Customers may help out of duty to other family members because ‘they are my parents, you know’ (Int.21.2.M) or because ‘that’s my responsibility as a daughter more than a customer’ (Int.23.2.F). Thus, customers may engage in SST encounters because they want or feel obliged to help others in need. The empathy motivation may trigger action in the conditions of the SST encounter when there is not a
sufficient number of employees to help customers, or when friends and family members may not be as experienced in SST usage. The following interview excerpt illustrates the situation of customers feeling obliged to help other customers when the company they had been engaging with appears to have abandoned them:

I could see one woman was getting really frustrated. There was no staff around. The bank was packed and there was nobody to help, and I just walked over to her and I just asked if she was OK, was there anything I could do. And what she had was, she was trying to do an international payment to her son or daughter who was in France I think. And I could see that some of the questions that were being asked; if you are not used to doing international payments and you are asked for an IBAN code, it just doesn’t mean very much to you, you know. So yes, she had some difficulties. As it turned out she didn’t have all the information. She needed to go to the bank and find out certain codes that she needed to complete the transaction. (Int.11.2.M)

Even though in the above situation the participant could not resolve the issue, he nevertheless gets involved in identifying the problem. It is observable how he tries to identify with the other customer’s perspective and how she may be feeling about the situation. According to participants in this research, SSTs may put some customer groups, such as elderly people, tourists, and novice users, in a vulnerable or disadvantaged position. Therefore, more experienced customers may take it upon themselves to protect such customers by engaging in the SST encounter. The following interview excerpt is an example of how one participant helps an elderly, novice user to buy a ticket at a kiosk, led by the empathy motivation:

The person was looking blankly at the machine and rather than giving them, letting some gouger, a gouger is somebody who would be, a person you wouldn’t like your own parents talking to, coming along and kind of intimidating them into giving them a few quid, you know, you would help them make the booking that they want by pressing ‘destination’, ‘where are you going to’... (Int.25.2.M)

The empathy that this participant feels for the other customer is highlighted by the way he envisages this elderly customer as his own parent. He projects the feeling of care for his own elderly parents on to an elderly person unknown to him. It was suggested by participants that empathising with another customer may be more pronounced when they have something in common, or when they may have been in the same situation.
themselves. There is a demonstrable empathy motivation to engage in helping fellow country people with SST usage. This is provoked by the language barriers that people meet when travelling, but also the sense of familiarity of seeing someone from their own country. The following excerpt illustrates the thoughts of a young Indian female participant on helping elderly Indian people with airport SSTs:

They know that you are like their daughter or son, or whatever, or granddaughter or grandson, so they kind of relate to you that: ‘Child, can you help me?’ and whatever. (Int.7.2.F)

Another participant states during his interview that he is open to assisting English-speaking tourists in Spain where he owns a second home:

I suppose we would have often helped people there because we would have been in the same situation ourselves... And you see people struggling and maybe asking for help, English speaking people. I would certainly help them. (Int.18.2.M)

Similarly, a German living in Ireland had assisted German tourists as may be evidenced in the following quotation: “I have helped German tourists before and they are ‘Oh, you are German, too!’ and it’s kind of nice” (Int.27.2.F).

Other participants may even act as hosts in their own country and thus feel obliged to help visitors with SSTs. In the Irish context, the famous ‘Irish hospitality’ is expressed by the Irish participants. The following excerpt is from an interview with an Irish participant who has helped an American tourist with a map app:

I just felt sorry for them. All the money they spent travelling to Ireland and they are in the rain, lost, so it wasn’t the most satisfying experience, but hopefully they got there. (Int.14.2.F)

Another Irish participant who has helped Spanish tourists at the tram kiosks comments:

I mean sometimes and especially when you see somebody coming to your country, you want to make them feel welcome and make them comfortable, and you hope the same thing would happen to you in a different country too. (Int.20.2.F)

It becomes evident in the above excerpt that this participant empathises with the tourist because she envisages that she may be in the same situation herself when travelling
abroad. This theme of reciprocity, that of helping and expecting to be helped, as a dimension of the empathy motivation is further explored in the interview excerpt below:

Participant: You know you treat others as you would like them to treat you. But I think sometimes it is down to a simple explanation as to how to operate a system, ah, and doing it patiently and be willing to show a person a second or a third time has its benefits because the person may not have to ask the next time. They might know and learn.

*Interviewer: And is that your responsibility as a customer to help other customers?*

Participant: As a customer to help other customers? Hmm, I think you know, particularly when people are in airports or travelling, there is a kind of an affinity with other passengers. You feel like ‘sure we are all in the same boat’. We are all going the [to the] same place and I am not going anywhere else, so I’ll give them a hand you know. And it is a responsibility as a customer, but I think as a human being or as just to be pleasant and helpful. It doesn’t cost anything you know. (Int.20.2.F)

At time, customers may express understanding of the company perspective in terms of trying to remain price competitive when implementing SSTs. On a limited number of occasions, this may result in assisting other customers with SST usage. The reduced number of company employees to assist with SST usage is justified by one participant as a necessity in order for low cost airlines to keep their expenditures at a minimum. Therefore, she states that she does not mind helping an elderly couple at a small, low cost airline’s airport SST. Below is an excerpt from her reflections on the situation:

I think because it is such a small airport and employees cost a lot more money than technology can. So it’s just a small amount of people there, one at reception, obviously they had some baggage handler and some security, but there wasn’t the hustle and bustle like there would be in a different larger airport. (Int.23.2.F)

This theme is discussed by another participant who even suggests that he is inclined to help other customers with SST usage because he believes that introducing more employees to help inexperienced customers may result in higher service prices for him. The following excerpt illustrates the thoughts of this participant on helping inexperienced customers with airport check-in:

*Interviewer: And do you feel about helping other customers?*

Participant: Nothing, there is nothing to feel. I mean as a human, it is our job to help others.

*Interviewer: You feel it is on a human level? You don’t feel that there should be somebody from the company, from the airline to help people to check-in or something like this?*
Participant: No, I don’t expect because if the number of persons will be more, the cheaper thing will go higher [smiling]. (Int.10.2.M)

An interesting point is made by only one participant, that of empathy towards employees as a motivation to use SSTs. This may be treated as an outlier theme where the empathy in the customer-employee relationship serves as a motivation for SST usage. This participant finds SST usage of no difficulty and appreciates that employees could be made available to provide other services. Below is an excerpt from this interview:

Participant: I think, it is kind of easy [supermarket self-service check-out usage] and you don't feel like you are taking up somebody's time too. You can do it on your own.
Intervewer: OK. What do you mean by taking up somebody's time? Whose time?
Participant: I don't know, like...say when you are in a supermarket and the other workers can do other things while...I don't know, you can kind of do it on your own.
Interviewer: Do you mean that you are kind of...
Participant: Making it easier for them. (Int.12.1.F)

Therefore, the perspective offered by this participant appears unusual in the sense that, for example, a convenience motivated customer will use the SST in order to avoid a queue at the personal counter rather than to alleviate the employee’s pressure.

5.3 Conclusion
This chapter provides a discussion of the findings relating to the first objective of the research, to investigate customers’ motivations for using SSTs in the tourism sector. The findings suggest that there are seven distinct customer motivations for engaging in SST usage. Participants express their motivation to use SSTs in terms of the various outcomes from SST usage: convenience, forced usage, control, enjoyment, access to lower price, eco-friendliness and empathy. The discussion of customer motivations reveals that customers fulfil certain personal and consumption goals when they use SSTs. For example, the convenience outcome from SST service motivates SST usage of customers whose goal is to overcome a busy work and family life schedule. The fact
that SSTs reduce the need for paper motivates SST usage to fulfil the value of being environmentally friendly. The findings relating to customer SST usage motivations extend the accumulated knowledge in the SST literature, and introduce the forced usage, eco-friendliness and empathy motivations which have not been conceptualised in the literature to date.

The first SST usage motivation has been identified as convenience. In this research, convenience is the most frequently discussed motivation for customer usage of any type of SST. Dabholkar et al. (2003) report that customers often mention convenience as a reason to use SSTs and suggest that the meaning that customers attribute to convenience is unclear. The findings from this research propose that convenience to customers relates specifically to efficient service and unlimited access to the service. The dimension of unlimited access is in line with the convenience motivation as defined in Collier and Kimes (2013) and Meuter et al. (2000, p.56), that is, ‘easy to use’, ‘saved time’, ‘when I want’ and ‘where I want’. The unlimited access dimension motivates SST usage when customers are time poor and have busy family and work schedules. Drawing on the customer contextual descriptions, the unlimited access is linked to achieving a goal of saving time and the alleviation of a busy customer lifestyle. The achievement of these goals may be linked to the consumption value of excellence (Holbrook, 1999) or the customer need to feel competent in their context (Deci and Ryan, 2012).

Convenience is also defined by participants in this research as efficiency which is in line with the ‘efficiency of service’ as a reason for wanting to engage with SSTs identified by Liljander et al. (2006, p.185). The second dimension of convenience motivates SST usage in order to obtain the service in a more efficient manner. This customer SST usage motivation may be linked to the customer goals to save effort and the customer
value of efficiency (Holbrook, 1999). Thus, when customers state that they use SSTs because they are convenient, they are motivated by the values of excellence and efficiency. The convenience motivation reveals a customer perception that they use SSTs because it suits them, that the effort they extend to complete the service transaction is suggested to be minimal and less than obtaining the service in other service channels. In contrast, the forced usage motivation suggests a customer perspective that SSTs are used by the customer because it suits the service provider to deliver the service via this channel.

The second SST usage motivation which emerged in this research is forced usage. SST usage behaviour is not always undertaken willingly by the customer and of their own choice. This is a significant finding because it contradicts the approach of researching SST usage as optional on the part of the customer (see for example, Gelderman et al., 2011; Meuter et al., 2005). The forced usage motivation introduces a stark contrast in the spectrum of SST usage motivations where customers use SSTs because it suits them (convenience motivation) versus using SSTs to suit the service provider (forced usage motivation). Although SST research reports that customers may use SSTs because they have been provided with no other channel to access the service (see for example, Meuter et al., 2003), the findings from this research suggest that customers may use an SST because they perceive they have no other option, even if in reality they do.

The present study contends that forced usage does not always relate to situations of no choice (see for example, Reinders et al., 2015; Liu, 2012; Reinders et al., 2008), but rather a subjective customer perception that the SST appears to be the only viable, although not preferred, option. For a customer who prefers the SST option over other service delivery channels, the fact that the company has made SST usage compulsory
may not be perceived as limiting of their choices and freedom. These customers still suggest that they use the SST with a convenience motivation and not forced usage motivation. In contrast, other participants suggest that they use SSTs with a forced usage motivation because they regard the other service delivery channels available to them as unviable for obtaining the service. Indeed, the customer perceives that they need to overcome an SST which has been imposed by the service provider in order to obtain the service. It appears that customer SST usage with a forced usage motivation may be explained by the customer desire to avoid unpleasant affect (Vroom, 1964), that is, if customers refuse to use the SST, they may not obtain the service.

Some participants suggested that they have used SSTs with a forced usage motivation because they fear the potential to appear ‘behind their times’ or old-fashioned. This aspect of the forced usage motivation relates to the customer need for self-development (Maslow, 1987) and relatedness (Deci and Ryan, 2012) by maintaining a positive social image. Customers may be willing to overcome their technology anxiety and preference for personal service in order to appear contemporary and ‘move with the times’. Therefore, SST usage is connected with a customer’s social image which is a significant finding. Participants in this research do not identify using SSTs in order to directly gain a positive social image which may explain the lack of research on social image as a factor for SST usage. Thus, the social benefit for the customer from SST usage may be presented as avoiding damage to their social image. Therefore, there is not only service provider pressure, but also social pressure on customers to use SSTs.

The third motivation for customer SST usage is identified as control. The word control is used by participants in reference to the independence they feel when they make service decisions and deliver the service better by themselves. The construct of control
in the SST literature does not have a clear definition as identified in the literature review. Control as a reason to use SSTs in Liljander et al. (2006) is identified with the opportunity to choose a seat when checking in for a flight and the freedom to do this in one’s own time. For Meuter et al.’s (2003), the control motivation behind SST usage relates to the power one feels when able to deliver the service better than an employee.

The independence facet of control as identified by participants in this research is to an extent reflected in Liljander et al. (2006) and Meuter et al.’s (2003) definitions, but not fully. The aspect of independence in decision-making that is driven by the belief that a service agent’s recommendations may be biased is uncovered in this research. It emerges that the situations when customers link the SST control attributes to the need for autonomy (Deci and Ryan, 2012) are characterised by customer trust in their abilities to deliver the service better by themselves and distrust in the service employee.

Another aspect of the control motivation which this research introduces includes the predictability of the service outcomes. In effect, the customer is not only seeking independent service delivery, but also to pre-empt the service outcome. In the context of tourism, which is associated with the stress from being in an unfamiliar environment, the predictability aspect is even more prominent. Furthermore, travelling with a group of people or young children strengthens the motivation to organise and prepare as much as possible before the trip, using SSTs. A distinction needs to be made between predictability in this research and the usage of predictability as a term in Lee and Allaway (2002). Their definition of predictability relates to the ability and knowledge of the customer to predict the SST service procedure and the outcomes from it (Lee and Allaway, 2002), but not to influence it.
The fourth customer motivation has been identified as enjoyment and it is linked to the consumption value of play (Holbrook, 1999) and the need for novelty (Leung and Matanda, 2013). Enjoyment as a construct in SST research is introduced by Dabholkar and Bagozzi (2002) and further defined as an anticipated outcome from SST usage by Curran and Meuter (2007). Enjoyment is measured as fun and entertaining in Curran and Meuter (2007), but the present study suggests that there are finer nuances to enjoyment as a motivation for SST usage from a customer perspective. For example, when customers can use SSTs to customise their museum experiences, their motivation is enjoyment. This dimension of the enjoyment motivation overlaps slightly with the independence aspect of the control motivation. This overlap occurs where the customer is motivated to use SSTs to exert control over the service experience so that it becomes more enjoyable. Using SSTs to organise an enjoyable activity such as a holiday is also suggested to add and extend the enjoyment of this activity. Therefore, the enjoyment of a service activity may motivate SST usage.

The second dimension of the enjoyment motivation relates to interacting with SSTs because it is an enjoyable activity in itself. The findings from this research are in line with SST research which has found that some SST users may experience an internal enjoyment from the technology-human interaction (Curran and Meuter, 2007; Dabholkar et al., 2003). This enjoyment is further highlighted in a tourism context where the SST may enhance the pleasurable aspect of tourism experiences. Therefore, in tourism contexts, enjoyment attributes of SST processes are linked to the need for play and novelty.

The fifth motivation for SST usage was found to be the access to lower price. This research finds two main aspects of lower price as a motivation to use SSTs, that of
cheaper service price and reduced cost to use the SST channel for service access and
delivery. Access to lower price as a motivation for SST usage has received limited
attention in SST research (see for example, Meuter et al., 2003) or it has been explored
as part of ‘better than the alternative’ (Meuter et al., 2000) or perceived benefits
constructs (Meuter et al., 2005). The lower price attribute in this research is linked to
the customer need for control over their surroundings and more specifically their
financial budget. When motivated by cost, customers suggest that they need to be more
flexible about the service offering and willing and able to put the extra effort into
searching and comparing various service offers. Therefore, participants identify the
customer willingness to engage with SSTs (Walker and Johnson, 2006) as a factor
associated with the lower price motivation. In the context of this motivation, a condition
which has emerged as important for participants is the reputation/trustworthiness of the
service provider. Although SSTs allow for access to cheaper service offerings,
customers are motivated by the cheap price only if they perceive that transacting with
the service provider is free of product or security risks. Therefore, customers will not
always pay the lowest possible price on offer for a given service. This element of
charging a higher price for peace of mind may be especially important in tourism
services where the last thing people want before or during a holiday is stress or worry. It
appears that the low price of SST service may be treated suspiciously by customers, that
it may be ‘too good to be true’.

The sixth customer motivation identified is that of eco-friendliness. A limited number of
participants mention the desire to be ‘eco-friendly’ and reduce their footprint as a
parallel motivation for SST usage to convenience. With the exception of Wünderlich et
al. (2013), the environmental motivation has not received attention in the SST literature
at all. The present study is in line with Wünderlich et al.’s (2013) finding that SST users
are not motivated by functional benefits for the self alone, but also by benefits for society such as lower greenhouse gas emissions. Hence, the eco-friendliness motivation is related to terminal value goals, in this case protecting the planet (Solomon et al., 2013).

The seventh customer motivation for SST usage is that of empathy. The empathy motivation for SST usage does not explicitly relate to benefits for the SST user and has not been identified in the SST literature to date. The empathy motivation may be explained by the need for belonging to a society and being a responsible citizen. Empathy has various definitions in the social psychology and neuroscience literatures (Decety and Ickes, 2009). It broadly relates to the human capacity to understand and identify with another person’s feelings and thoughts which may often result in pro-social reactions, such as sympathy, caring and helping behaviours (Decety and Ickes, 2009). Customers engage in SST encounters to help and tutor fellow customers with SST usage out of empathy. This type of SST usage is conditional on the existing discrimination in society against people who do not wish, or cannot interact with, SSTs. Furthermore, there is an existing ethical norm of helping the vulnerable and elderly which facilitates customer actions in such situations. The tourism context even motivates customers to promote the friendly image of their country or help fellow country people abroad. There is no evidence of the empathy motivation in the SST research literature to date. When driven by empathy, users effectively engage in SST encounters on behalf of another customer. Also, the empathy driven SST user represents the service company in helping their customers on their behalf.

The findings relating to the customer perspective on their SST usage motivations reveal motivations which are novel to the SST literature. The significance and meaning of
these findings is expanded in Chapter Seven. The customer motivations discussed in this chapter provide the basis for understanding customer experiences with SSTs. The motivations which lead to customer SST usage will determine their expectation of the outcome from the SST encounter and hence the experience evaluation (Etgar, 2008). Therefore, the customer SST experiences are described in terms of the customer perceptions and connections to the customer motivations. In an SST context, the customer produces the service to be consumed and thus influences the value in the experience (Barrutia and Gilsanz, 2013). Therefore, Chapter Six also explores the roles that customers perceive they undertake during SST encounters.
Chapter 6 Customer SST Experiences and Roles

6.1 Introduction

Chapter Five discusses participant perceptions of their motivations to use SSTs. Customer motivations are based on previous experiences of usage or non-usage of SSTs and these motivations determine future SST usage and experiences (Wang et al., 2012; Etgar, 2008). Customer perceptions of their motivations reveal that they harbour contrasting views of SSTs as being functionally beneficial versus imposed on them, and detrimental versus beneficial for society. The second research objective of this thesis is to explore the customer experience of SSTs in the tourism sector. The examination of customer experiences reveals that customers have differing perceptions of their SST usage resulting in a variety of SST experiences. The author interpreted six distinctive types of customer experiences from the participant SST usage accounts, namely, accomplishment, lack of control, manipulation, supportiveness, concern about discrimination and social tension. The experiences of supportiveness, concern about discrimination and social tension represent social experiences which are under-researched in SST literature. The themes of social awareness, social tension and discrimination were further explored in the projective sentence technique component and are discussed within the respective SST social experiences.

In the discussion of the various customer experiences, it becomes evident that customers perceive that they undertake a number of roles when producing and consuming the service. The third research objective of the project is to examine the roles that
customers undertake in SST encounters in the tourism sector. The customer SST roles in this research are defined in relation to their own understanding of the cognitive and physical activities that they perform during SST service. These roles are interpreted by the author based on the participant accounts of their SST uses. The role labels, provided by the author, represent the participant perspectives on the roles that they undertake in SST service. The author differentiates seven customer roles: convenience seeker, motivated worker, technological sweeper, judge, enforced worker, unskilled worker and assistance provider. The wealth of participant perceptions relating to the roles of SST users are further explored in the projective sentence technique component and the findings are presented as a concluding section to the discussion of the customer SST roles.

This chapter begins with a discussion of the six customer experiences, followed by the seven customer roles. The discussion is supported by excerpts from the data, presented in a similar manner to the previous chapter. The chapter concludes with a discussion of the emergent connections between SST motivations, experiences and roles.

6.2 Research Objective Two: To explore the customer experience of SSTs in the tourism sector

This section discusses the findings relating to the second objective of this research, namely, to explore the customer experience of SSTs in the tourism sector. Customer experience in this context is defined as an overall customer state, encompassing the customer’s emotional, cognitive and physical condition associated with SSTs (Payne et al., 2008). These experience states were arrived at by asking participants to reflect on SST encounters. The author allowed participants to freely express their thoughts and associations relating to SSTs. Where the participants’ responses did not clearly express
their perspective, the author would ask probing questions such as ‘How did that make you feel?’, ‘What are your reflections on this?’ and ‘What did you think about this?’

The responses demonstrate a wide range of customer psychological states which are characterised with specific emotions, meanings and perceptions. It emerged that SST experiences arise from customer-SST and customer-customer/employee interactions. The experiences arising from customer-SST interactions include the accomplishment, lack of control and manipulation experiences which are discussed first in this section. Subsequently, the experiences arising from customer-customer/employee interactions are examined, namely, supportiveness, concern about discrimination and social tension. Chapter Three identifies that SST experiences may be value-creating and value-destroying (Hilton et al., 2013). The accomplishment and supportiveness experiences are characterised by positive psychological outcomes and are desirable by customers; as such, they are value-creating, while the experiences of lack of control, manipulation, social tension and concern about discrimination are described by participants as value-destroying. The six types of customer SST experiences will be discussed in this section by first offering a description of the experience by participants, followed by an analysis of customer perceptions determining each experience. Throughout the discussion, the author highlights the emergent connections between customer motivations and experiences.

6.2.1 Accomplishment Experience

The first experience described by participants in this research is labelled by the author as the accomplishment experience, and it is a value-creating experience. This label was chosen to reflect the expressed inner state of ‘accomplishment’ (Int.8.2.M) when participants could achieve more service value themselves by using an SST, than an
alternative mode of service delivery. Participants suggest that they feel as though they are ‘getting the best value’ (Int.28.2.F) because they are engaging in the most/more beneficial service mode available to them. This experience is more closely examined by focusing on a sample of participant interview excerpts relating to reflections on an accomplishment experience.

The accomplishment experience is characterised by a positive emotional and cognitive customer state. The participant descriptions of their SST usage experiences in various SST contexts (online information searches, mobile apps and online shopping) contain positive adjectives indicating that the experience is highly valued by the participant. The participant descriptions of the accomplishment experience are illustrated in the sample excerpts below:

I researched flights and flight prices online on my phone, and then I actually booked it on my laptop at home. And it was just so simple and you really felt that you were getting your best price because you’ve seen and you’ve compared. (Int.28.2.F)

So instead of walking around the streets looking for a restaurant, you just put in say, Chinese restaurant [on your mobile]. All the Chinese restaurants come up, and you can get the walking distances from where you are, the menu and the price. It's perfect! (Int.107.1.F)

I go shopping for speciality teas online because there is [a] poor selection of say, we are from Sligo, there is [a] poor selection of speciality teas. We can only get black tea, so. Actually, I had a good experience buying them online... it was just some website in Europe. And I found it very interesting. Just typed in some speciality teas and that will check them up. (Int.118.1.F)

It is evident that in all three quotations above, the participants stated a perception that they have accomplished more by using the SST (obtained the best value flight, found a restaurant faster than walking around or found a product which is not available locally). The concluding, evaluative statements about the SST encounter, such as ‘It’s perfect!’ (Int.107.1.F), and ‘I had a good experience’ (Int.118.1.F), suggest that the accomplishment experience is valued by customers; as such, it is value-creating.
A closer examination of the above quotations reveals that they not only illustrate the customer psychological state, but also emergent links between customer motivations and experiences. The participant in the first quotation (Int.28.2.F) suggests that her motivation is to obtain the best priced flight in the most convenient way; her motivation is to access lower price and convenience. The second quotation (Int.107.1.F) illustrates the connection between convenience motivation and the accomplishment experience; this participant sought out the channel which provided her with the information about Chinese restaurants in the fastest and most effortless manner. Finally, the third quotation (Int.118.1.F) suggests that the participant was motivated to go online for speciality teas because of the better selection available; she is motivated by convenience. It may be concluded that the functional motivations (convenience, control, access to lower price) are connected to the customer creation of an accomplishment experience.

There are two perceptions underlining the accomplishment experience, namely that the SST channel is the better option and a perception that the customer effort to deliver the service is minimal. These perceptions are the result of two cognitive, evaluative processes; firstly, a comparison process between the SST mode and other service modes, which highlighted the service benefits of the SST mode and secondly, an evaluation of the customer effort to complete the SST process, which emphasises the minimal customer effort required. The comparison process between the service modes is clearly expressed in statements such as:

For me today in the everyday life more and more, like, classical actions are linked to technology. For example, today if I'm waiting for the bus in [city X], I'm not going to check on the paper timetable because I know that the paper timetable is not a real time, it's not real time updated. So I check on the App [bus company Y] and with the bus stop number I can have the real time info and then I'm sure that I'm going to wait another three minutes or 20 minutes. (Int.31.2.M)
It should be noted here that a service channel comparison process was also characteristic of the functional benefit motivations discussed in Chapter Five, namely, convenience, control, enjoyment and access to lower price. This finding further confirms the links between these motivations and the accomplishment experience provided that the customer perceives their SST usage as effortless.

On other occasions, the comparison process is not as clearly spelled out by the participant, but it is implied when evaluating the functionality of the SST option. When reflecting on the accomplishment experience of booking online, a participant implies that the SST option is the best without naming the other options she was comparing it against:

So I think that’s the most beneficial thing [booking flights online], it’s the convenience and you really feel like you are doing yourself justice and you are getting the best value. (Int.28.2.F)

The usage of superlatives such as ‘most’ and ‘best’ in the above statement suggests the existence of a comparison process between the SST mode and other modes of service which do not offer as much convenience and price options. The same implied comparison process between the SST mode and other un-named service options is evident in the following statement about using Google Earth to search for directions: ‘It showed us the street, we could look in the window, we knew exactly where we were going’ (Int.103.1.F). The emphasis on the level of detail that this SST option provides indicates the superiority of the SST channel. This positive evaluation of the SST performance is what created the customer’s elevated feeling of having accomplished an outstanding service experience.

As identified above, the accomplishment experience is characterised with highlighted perceptions of SST benefits and minimal customer effort towards accomplishing the service. In the excerpts above, participants state in their reflections: ‘it was just so
simple’ (Int.28.2.F), ‘we just googled it’ (Int.103.1.F), ‘you just put in say, Chinese restaurant’ (Int.107.1.F), and ‘just typed in some speciality teas’ (Int.118.1.F). These expressions emphasise that the participant has had to provide inputs which they clearly found to be of no burden or inconvenience. They also suggest that minimal effort was required in order to accomplish their needs, something that is also implied in the following statement made in relation to a mobile bus timetable app: ‘So I check on the App [bus company Y] and, with the bus stop number, I can have the real time info.’ (Int.31.2.M). Here, no specific attention is drawn to the customer’s efforts to complete the process.

Since SSTs require active customer participation, the present study aims to explore the customer perceptions of what constitutes reasonable customer inputs. It emerged during the interviews that these perceptions influence the customer SST experience. Participants were prompted to discuss how they felt about the inputs required during SST encounters in comparison to personal service options. The findings suggest that when customers experience genuine benefits from SST usage, they do not mind that they are the ones actually doing the work. For example, the following interview extract illustrates that the perceptions of independence and accomplishment are at the centre of this participant’s experience of SST usage rather than the inputs that she has had to provide:

*Interviewer: Oh, right, and how about the... extra activities that you need to do in order to get the service, how do you feel about this as a customer?*

*Participant: I like it actually, it kind of gives me a sense that I’ve got the best deal and I know exactly what I’m doing and I’d be such a bargain hunter even when I’m shopping for clothes or out like buying food. I’d always feel, like, happy with myself if I found a good deal and that I’ve done my research and I know that I’m not being ripped off, and I know that some other site won’t have it for that bit cheaper or something like that. So I think even though you might spend an extra bit researching and making sure that you’ve got the best deal, it’s worth it in the end because you’ve got that sense that you trust yourself and you know that you couldn’t have done any better.* (Int.28.2.F)
Another excerpt illustrating the superiority of service benefits over the customer inputs in customer evaluations of the SST experience is provided below:

_**Interviewer:** How do you find, kind of, companies asking you to check-in online or via those kiosks?_
_**Participant:** Yeah, I don't mind. I prefer it to queuing at the desk, usually. I like to turn up at the airport and maybe have my boarding pass already. I like that. (Int.88.1.F)

The experience of accomplishment is characterised by participant perceptions that the inputs towards SST service are appropriate and not very demanding. Therefore, in the Stage Two interviews, participants were asked to discuss what they considered to be their responsibilities during SST encounters. The range of answers suggests that participants consider it appropriate to be responsible for acquiring the necessary IT skills and using the SST with care and respect. Another customer responsibility is suggested to include the protection of their personal privacy and security online and when using kiosks. Although the focus is on customer responsibilities, these are not discussed in isolation from the service provider responsibilities at times. The excerpt below clearly illustrates the customer perspective of a balance between customer and service provider responsibilities.

_**Interviewer:** So can you reflect on your responsibilities as a customer to get a good service?_
_**Participant:** Responsibilities as a customer to get good service. Hm, ahm, I think there are two things. There is a responsibility, just to turn it around a bit. I think companies have a responsibility to educate their customers about how to use their technology. And I think if they do that, then equally customers have a responsibility to take care and to be careful about how they use it... I think it is a two way process and it is hard to divide where it becomes the company’s responsibility to educate and the customer’s responsibility to learn. I think it is kind of a fuzzy line. (Int.14.2.F)

While customers take on the responsibility with the view to being ‘open to change’ (Int.22.2.F) and in order to ‘keep up-to-date’ (Int.17.2.F), service providers are expected to get involved by providing training. The customer perceptions that it is acceptable to learn how to operate the SST and provide the necessary inputs towards the SST encounter are illustrated in the following quotation:
They [airline website X] teach you quite quickly how to book [laughter]. You know, you just tick a box and 40 Euros come up and just click another and another 20 Euros come up and it is all. It is quite, quite, you learn an awful lot. (Int.17.2.F)

Customers perceive it as acceptable to provide a certain level of IT skills to the SST encounter: ‘You have to be comfortable with IT and not be afraid of the machines’ (Int.23.2.F). There is an expectation that the first few interactions with an SST may require some learning effort and adjusting on the part of the customer. Although these first few encounters may be associated with anxiety and discomfort, they do not affect the customer experience negatively in the long run. For example, below are some statements from participants about learning to interact with SSTs:

When I started buying tickets, you would be a bit nervous about, and giving the credit card details. Not really something that...took a bit of getting used to. So, as long as you got comfortable with the sites... Since I have embraced it, I am happy enough. (Int.48.1.M)

Well, you would be a bit fearful at the start, you know, just in case you booked something that you don't want or it's the wrong date, or you know, you are constantly checking at the beginning are you doing the right thing. There is a bit of learning involved. And then, I think, once you do it five times you are confident. But there is definitely that beginning learning process, to learn how to book things online. (Int.63.1.F)

Participants suggest that it is their responsibility to take the SST encounter seriously and be ‘careful’ (Int.30.2.F) and accountable when entering information or following the instructions on the SST interface, as illustrated in the extract below:

Well, there is the thing of we as customers kind of throw our hands up and say, ‘It's not my fault! I did it on your website’. So because we did it on your website, then it is your fault- instead of taking ownership of what we fill in. (Int.14.2.F)

Some customers have taken the responsibility for the SST encounter outcome to an extreme. One participant states that when she made a mistake with booking her flight, she just booked a new one because she believed that the company would not make any amendments (Int.27.2.F). Another participant suggests that as an SST user she feels entirely responsible for the service outcome:

So I do think that technology does have its advantages, but it is up to the customer to use them for what they need them most and to monitor. I still have this trust element that I am not 100%
positive that everything is going to go well, and it is up to me to check and make sure that ‘yes’. (Int.20.2.F)

Customers appear to be ready to accept a certain amount of failure when it comes to SSTs: ‘You kind of just have to be patient sometimes I think, like they are still perfecting it. So it’s not going to be 100% [laughing]’ (Int.28.2.F). Furthermore, customers accept the responsibility to ‘filter through’ (Int.16.2.M) information and to protect their own security when using SSTs. Customers admit they need to have some ‘common sense’ (Int.1.2.F) and not believe everything that they read online. One participant comments that ‘if it is too good to be true, it probably is’ (Int.28.2.F), whilst another remarks that ‘the web is wonderful, but you have to edit it’ (Int.16.2.M) and look for the ‘real information’ (Int.2.2.F). Customers have also taken it upon themselves to protect their security when using SSTs, such as hiding their pin when using ATMs (Int.28.2.F), changing their passwords regularly (Int.19.2.M), devising hard to break passwords (Int.9.2.F), buying only from trusted, popular sites (Int.3.2.F) and protecting their device from being compromised (Int.12.2.M; Int.21.2.M; Int.30.2.F).

Furthermore, customers believe it is their responsibility to behave ethically towards the service company and respect ‘the actual piece of service technology’ (Int.9.2.F) by, for example, not inflicting physical damage on SST interfaces owned by the service company. One participant refers to the classical example of a difficult customer who tries to ‘exploit the system in any way’ and comments ‘that’s not ethical- not moral either’ (Int.8.2.M). The following interview excerpt provides a broader perspective of the customer responsibility to be honest with the service provider, and also illustrates mindfulness of other customers. The participant reflections relate to customer responsibilities when making hotel bookings online:
I mean they [online accommodation booking] are taking a lot, kind of, on faith from you. I mean you are kind of giving them your word on a lot of things. I know that there are measures against that. That if you don’t show up they’d cancel your booking, but I think it is half a responsibility issue, half etiquette issue as well... Then they could have given that room to someone else. It is kind of about being mindful of other people, it’s not just the service providers either. (Int.21.2.M)

This excerpt demonstrates the complexity of the process of customer evaluations of their SST experiences. It appears that customer inputs are not only evaluated in terms of minimal effort, but also the ethical norms of conduct, that is, being respectful of the SST provider and other customers of the service.

In summary, the SST experience of accomplishment represents a value-creating customer experience of achieving more benefits from engaging with the SST option. The customer evaluative process associated with this experience is characterised by the perception that the SST option is more beneficial than all other available service modes. Furthermore, customers evaluate that the inputs that they provide towards the service are appropriate. Some of these inputs include learning to operate the SST, being careful when putting in information, tolerating a certain amount of SST glitches, protecting their security and being honest with the service provider. The next section discusses a value-destroying SST experience, namely, a lack of control experience.

6.2.2 Lack of Control Experience

The second type of customer SST experience described by participants is labelled by the author as a lack of control experience, which is a value-destroying experience. This label reflects the participants’ perception that they are not fully in control of the SST interaction due to difficulties in operating the interface, or having to use an SST when it does not suit them. The emotional expressions of this experience include frustration, annoyance and helplessness, indicating a state of lack of control over events. The following words used by participants to describe their experiences, such as ‘afraid’
(Int.109.1.F), ‘anxiety’ (Int.46.1.M), ‘annoying’ (Int.42.1.M) and ‘difficult’ (Int.88.1.F), are suggestive of a negative, psychological customer state. The negative emotional reactions reported by participants suggest that this experience is value-destroying. There is a perception that the SST encounter is not what it should be from the customer perspective. The quotations below provide an illustration of participants’ expressions of lack of control experience when interacting with various SSTs:

Well, for instance, ahm, sometimes the technology takes many steps to get something done. That can be very, ahm, for me it causes a certain level of anxiety. Because I don't know if am going to be able to follow all the steps, and if I would understand all the steps. (Int.7.1.M)

I am always afraid because when you are booking tickets online, for security reasons, they only give you a certain amount of time, don't they? You have to do it fairly quickly. And I am not quick enough yet, and I think, I will lose it all and have to start again. (Int.109.1.F)

These quotations describe an unpleasant customer psychological state. The first excerpt relates to the difficulties experienced by the participant during an attempt to buy cheaper phone call credit online. This account demonstrates a connection between the motivation of access to lower price, which was not accomplished, and the resultant lack of control experience. Similarly, the second quotation describes booking a flight online because of the lower price, and the difficulties experienced in completing the transaction. The quotations suggest a perception of mismatch between the skill requirements for completing the SST process and the customer skills. This perception of mismatch is the result of customer evaluation of their skills to operate the SST which concluded that these skills were insufficient. It can be observed in the second excerpt above that the participant evaluates their skills against the skills of an experienced user (‘not quick enough yet’).

Secondly, the lack of control experience may be the result of a customer’s negative perception of the SST process efficiency. For example, participants in the following
excerpts do not indicate skill insufficiencies, but suggest that the SST process was inefficient:

The English version was not written by a native English speaker and that was very, very obvious... It’s shocking that they don’t have a better website... I think it is lack of clarity on their website when you are booking one room and they will have lots of extra boxes beside beds and breakfast... I think their reservation system is not conducive to people putting in easily what they actually want. (Int.14.2.F)

And then annoying is the likes of these kiosks that you get three-quarters through checking in and then it tells you, you have to go to the counter instead of telling you at the start. (Int.42.1.M)

The above quoted participants evaluate the SST process against their perceptions of an intuitive and efficient service process. The lack of control experience arises from the perception that the SST does not perform the way the customer would like it to and this inconveniences the customer. It is evident that the lack of control experience on these occasions relates to the customer motivation to use a convenient and efficient SST, which, on the contrary, does not live up to their expectations.

Thirdly, the lack of control experience may be associated with perceptions of difficult access to the SST. The customer evaluates negatively the accessibility to the necessary technological equipment for SST delivery, such as a computer and printer. The following two excerpts illustrate the negative customer evaluation of the accessibility to the SST and the arising lack of control experience.

Ahm, just recently, I went to Italy for like 15 days, so I needed to check-in for my return trip with [airline X] because you can't check-in at the airport. So, that means when I was on holidays, I needed to find a computer, I needed to find a printer to print my boarding pass off, so that was difficult. (Int.88.1.F)

I got delayed by an extra day in airport [X] and I had to rebook a ticket, and of course, I didn't have access to my laptop, printer and all the rest of it. So, that was a bit more awkward to find a place which will let me email them my ticket and get them to let me print off my booking voucher and then go check-in again. (Int.21.1.M)

The lack of control experience in the above two excerpts appears to relate to a forced usage motivation. In summary, the lack of control experience is evaluated by participants as negative and relates to fictional benefit motivations, such as convenience
and access to lower price, where the benefits from SST usage could not be achieved. This experience also relates to the forced usage motivation where the customer is obliged to use an SST when it does not suit them. Therefore, the lack of control experience arises when customers have failed to achieve the benefits from SST usage or have been forced to use an SST.

Although SSTs are gaining wide adoption in contemporary society, technology anxiety is identified as a salient theme in participant perceptions of SSTs which is associated with a lack of control experience. Therefore, this theme merits its own discussion from the projective sentences technique. The theme of technology anxiety is most pronounced in the responses to three projective sentences:

Sentence 1: *The person who booked at the travel agent wanted to...*

Sentence 3: *Some people book a hotel online and will then ring to check their reservation has been received, because...*

Sentence 6: *Some passengers/tourists choose to by-pass self check-in, and instead go straight to a member of staff at the desk because...*

Although many of the responses suggest that technology anxiety is a personal characteristic, some responses discuss issues with the SST process which trigger technology anxiety. These situational characteristics include the insufficient feedback incorporated into the SST process and the risks associated with SST usage.

A characteristic of the person who books at the travel agents’ is suggested to be the desire to ‘deal with the person rather than a computer’ (Int.28.2.F). Such customers may desire to ‘receive a personal service’ (Int.25.2.M) because they ‘do not trust technology’ (Int.5.2.F) or they want to ‘engage with a human being’ (Int.11.2.M). The passenger
who would avoid the airport kiosk check-in may have ‘anxiety from the machine’ (Int.2.2.F), they ‘are scared of the technology’ (Int.6.2.M) and ‘they are not comfortable with the technology and they are not used to using it’ (Int.14.2.F). The preference to interact with a human service agent is again evident because these customers ‘may want personal interaction’ (Int.9.2.F), ‘prefer to deal with a person’ (Int.11.2.M) and ‘they prefer dealing with a human’ (Int.21.2.M).

Nearly half of the responses to Sentence 3 state that people who seek extra confirmation after an online booking do not trust technology, for example: ‘because maybe they don’t trust technologies’ (Int.2.2.F); and ‘[laughter] because they don’t trust technology’ (Int.18.2.M). The suggestion that these people who seek extra reassurance have anxiety when it comes to technology usage is clear, and some participants include in their responses a statement that they personally do not belong to this group of people. The reader may observe how the sentence is completed by making a stark differentiation between ‘they’, the people who seek reassurance by ringing the hotel directly for confirmation, and ‘I’, the participant:

They don’t trust [the] online system, I think so, because I never did that. Because I always get a confirmation email, that’s it. For me, if you get any confirmation email, that’s it, you can take a print out, that’s it. (Int.6.2.M)

Oh, because they don’t trust technology. I wouldn’t, I’ve never done that. (Int.14.2.F)

They don’t find it safe and secure. I won’t say old again [laughter]; my parents-in-law. I haven’t done this, but my parents-in-law have. (Int.1.2.F)

The quotation below indicates that even when this participant has had to ring for confirmation, he is quick to explain that the website was at fault, and this is not his usual practice:

They [people who ring to check their reservation has been received] don’t trust technology. Ahm, although I have done it. I did it once or twice, particularly that Spanish company because their confirmation of a booking isn’t the clearest. (Int.16.2.M)
The participants in the quotations above make it clear that they are not technology anxious. It is remarkable that all the participants who provide the above responses are in their 30s or early 40s. Interestingly, the younger participants, in their early 20s, who do not appear to display anxiety towards technology during the interview, complete the sentence by indicating that they seek extra reassurance. For example:

It’s fast and easy and it’s good to check that it’s been received. (Int.29.2.M)

They want to double check; I do it myself [laughing]. (Int.28.2.F)

It may be suggested that the younger participants seek additional confirmation, not because they have anxiety with the technology, but because it is a costly purchase and ‘they don’t want to be disappointed’ (Int.26.2.F). Therefore, regardless of the fact that these participants are technology-savvy, they still seek extra confirmation. This finding somewhat contradicts the perception held by the majority of the participants that people who may seek additional confirmation are necessarily anxious around technology in general.

The participant responses also relate to perceptions of the SST process which may trigger technology anxiety behaviours like seeking further confirmation from another channel. There is a perception that SST usage holds certain risks in terms of unsure response, financial losses, customer mistakes, and customisation deficiencies. Therefore, technology anxiety in an SST context may relate not only to personal disposition to technology, but also characteristics of the service situation.

The theme of technology anxiety may relate to the perception of insufficient confirmation provided by the website. For example:

The online service does not give them [customers] sufficient confirmation that the booking has been made. (Int.8.2.M)
Just he wanted to confirm verbally because verbal communication is better than technology; it can fail sometimes. (Int.10.2.M)

The theme of looking for ‘reassurance’ when booking with a travel agent is prominent in the answers, for example in the statements ‘Eh…to reassure himself.’ (Int.21.2.M) and ‘to have a peace of mind and to be more reassured’ (Int.5.2.F). The theme of reassurance and need for more information is also present in the responses to Sentence 6. There is the suggestion that customers may avoid the check-in kiosk at the airport because ‘they are looking for reassurance that you can’t get from a machine’ (Int.16.2.M) or ‘they may be unsure of the situation’ (Int.9.2.F). The theme of technology anxiety is also associated with people who are not familiar with the SST such as tourists. Two of the participant responses suggest that the person avoiding airport kiosk check-in may be a tourist who is seeking to interact with the locals. For tourists, the human interaction may present part of their travel experience:

   Being tourists, it could be even down to the experience they are seeking. They are there to meet people, to interact. Like typically when Americans come to Ireland, they want to meet Irish people. (Int.16.2.M)

In addition, tourists may not understand the language on the SST interface. For example, one participant states that tourists: ‘don’t trust that they understand maybe the language’ (Int.28.2.F).

The technology anxiety theme may also relate to perceptions of potential financial losses when using SSTs. The financial risk perception of online booking is also expressed by some participants justifying booking with travel agents for expensive trips and special occasions, as may be evidenced in the following quotations:

   For something like a honeymoon, a special piece of travel, going off to do a tour of the world. I would want to do a travel agent booking. But I think a person who books at the travel agent to go to London is daft. (Int.16.2.M)

   Wanted to book a long holiday which is far away. (Int.32.2.F)
Wanted to go on a package holiday. (Int.29.2.M)

Wanted to organise something really special and unique. (Int.30.2.F)

There is an evident pre-conception that travel agents are the place to go for package holidays because ‘I would associate a travel agent with packages’ (Int.9.2.F). This perception is not found to have an observable connection with any demographic characteristic or experiences of the participants. The statements that booking online is customary for some services and booking with a travel agent for others reveal that participants hold prejudices towards SST service which may affect their motivation. For example, the perceptions that booking a long-haul trip should be done at the travel agent’s may increase the anxiety of a customer considering booking such a trip online.

The theme of technology anxiety may also relate to potential customer mistakes for which they will be held accountable. This is expressed in participant responses containing references to responsibility for financial losses:

And if something went wrong, you can take your money back from the travel agent. So you want no tension basically. (Int.6.2.M)

I am handing over the responsibility to somebody else. (Int.13.2.M)

Wanted for somebody else to take the responsibility. (Int.18.2.M)

The above references to responsibility suggest customer unease in taking accountability for the SST process outcomes. Participant responses imply that customers perceive the responsibility for SST outcomes as burdening; hence, they are ready to hand it over to the travel agent.

SSTs may also create anxiety when they cannot provide for all customer requests, termed customisation deficiency. In such situations, customers may need to look for personal assistance and hence avoid SST usage. For example, the following response
suggests that anxiety may be the result of insufficient provision of customisation options on the part of the SST:

I suppose [customers] wanted for somebody else to take the responsibility of making the booking and making sure there was no mistakes made and plus they wanted to speak to somebody and get all the answers to the questions that they might have had. (Int.18.2.M)

This quotation suggests that in addition to unwanted responsibility, customers may have special requests or need further information. As such, their preference for obtaining a personal service may be due to the fact that they ‘wanted some advice’ (Int.3.2.F) or needed to ‘seek further information’ (Int.9.2.F). This slightly alleviates the negative image of someone who is anxious with technology and avoids taking responsibility.

The customers who have gone to the personal check-in desk are suggested to ‘have some questions’ (Int.23.2.F) or ‘they could have, like, a special request or something’ (Int.29.2.M) because the ‘machine wouldn’t be very helpful to ask the specific questions’ (Int.26.2.F). Interestingly, again people who are ‘in a hurry’ (Int.19.2.M; Int.30.3.F), or ‘short of time’ (Int.22.2.F) are the ones who may avoid the SST counter because ‘there may be a queue there’ (Int.19.2.M) or ‘they have a bag to check-in anyway’ (Int.27.2.F). Furthermore, customers who opt for travel agents may be ‘short of time’ (Int.22.2.F) or may have ‘wanted to save their time’ (Int.26.2.F). It is evident that these participants imply that booking online may require time investments because the online booking process takes longer than going to a travel agent.

Technology anxiety is associated with a negative personal characteristic, but may also relate to the perceptions of the SST process. SST usage may be associated with perceptions of unsure response, financial losses, unwanted customer responsibility and customisation deficiency. These perceptions may impact on the customer motivation and experience of SSTs.
Negative SST experiences may also occur when customers perceive that service providers implement SSTs in order to take advantage of customers. This experience is discussed in the following section.

6.2.3 Manipulation Experience

The third SST experience is labelled *manipulation* by the author because of the customer suggestions that they are being taken advantage of by the SST provider. This represents a value-destroying SST experience. Whilst companies do not set out to take advantage of customers, clearly this perception is held by some who suggest that SST providers are involved in ‘subterfuge’ (Int.16.2.M) and trying to ‘fool’ customers (Int.27.2.F). The manipulation experience is described with emotional states of disapproval against a perceived manipulative treatment of customers. The quotations below illustrate how these participants feel that the service company is manipulating them into spending more money through the design of the website. These statements were made in relation to purchasing plane tickets from low cost airlines:

You go onto it [airline booking website] and there are 17 000 images screaming at you and you have to scroll down through hundreds of ads to get to the thing that you actually need... What does annoy me is when in the course of using this technology I am pressurised or bombarded with things trying to get me to buy other goods and services from the same people... And it makes the online booking process longer and a bit more tedious. (Int.21.2.M)

Little tricks! So, for instance, they will bring up some tick boxes on the website. But they don't necessarily tell you, you don't have to tick any of those boxes. They set the website in such a way that you feel that you have to go through insurance rates, for example... So, they build the website to entice you into buying all these extra services that you don't need. So, you have to have your wits about you. (Int.15.1.M)

The manipulation experience is described as requiring the customer to be extra careful of the ‘little tricks’ (Int.15.1.M) and attempts of companies to make customers spend more money or take extra responsibility. It is noticeable that when participants speak about the manipulation experience, they often refer to ‘they’, meaning the service provider who has deliberately aimed to ‘fool’ customers. The tension and annoyance
expressed by participants suggests that this experience is evaluated negatively by customers. The participants quoted above were motivated to get cheap flights online, but had to interact unwillingly with the SST in order to access the lower price tickets (forced usage motivation).

The evaluative process characteristic of this experience involves weighing up the service provider’s benevolence and concluding with a negative perception. The focus is exclusively on the service provider function, which is highlighted in the frequent repetition of the word ‘they’ to refer to the company. The evaluative process is illustrated in the interview excerpts below:

   It’s annoying. You have to be so cautious that you have done everything right. That’s why I, like, triple check things now... They want you to make the mistake almost. I think so... They are almost trying to fool you into it. (Int.27.2.F)

   You know if the name is printed wrong, well that’s your fault, it is not their fault. And that shouldn’t be a big problem. I know with ticketing in the past, reading the travel agent’s handwriting; particularly if there is a certain unusual surname... They actually charge you for making a mistake! (Int.16.2.M)

   The suggestion that companies are not always honest with the customer is highlighted by expressions such as ‘you have to have your wits about you’ (Int.15.1.M) or ‘you have to have a bit of smarts about you’ (Int.25.2.M). As one participant put it:

      I would love a company [online service provider] to come out some day and say: ‘We will charge you what we are telling you we will charge you’. (Int.16.2.M)

In the discussion of customer responsibilities, it becomes evident that participants regard the terms and conditions agreements, which customers have to accept, as an attempt on the part of companies to manipulate them. Customers do accept that they should read the ‘small print’ (Int.4.2.M; Int.17.2.F; Int.30.2.F), but they often admit that they have not done so: ‘not really, but I understand it’ (Int.17.2.F) and ‘the general customer, I don’t think will go through it’ (Int.10.2.M). They are viewed as inappropriate in terms of length and clarity, and are regarded as a means for passing
extra responsibility on to the customer. Customers have often been put in the position of having to read through a ‘pages long document... and you are in the middle and even the session expires when you are booking your ticket. So they don’t give you time to read it’ (Int.7.2.F). The transfer of unfair responsibility to the customer is highlighted as being the motivation behind a company’s lengthy terms and conditions. For example:

I actually didn’t read them, I just accepted them. That could come against me... They are protecting themselves for anything that would happen. That’s why. I understand that they are doing that for reasons so people wouldn’t be, you know, they are covering their backs. (Int.26.2.F).

I don’t think it is fair to make the customers responsible for all of these terms and conditions and disclaimers where you click a box, but if you actually want to read it, you have to click into a link. I think it is the company pushing too much responsibility onto the customer. (Int.14.2.F)

The three experiences of accomplishment, lack of control and manipulation feature a customer-SST interaction. The accounts of customer SST encounter experiences demonstrate that they also involve social interactions between customers and company employees. These interactions are associated with the experiences of supportiveness, concern for discrimination and social tension and are discussed in the following sections.

6.2.4 Supportiveness Experience

The fourth, customer SST experience is value-creating and is labelled by the author as a supportiveness experience because of the pronounced feeling of helpfulness in terms of assisting, or being assisted, with SST usage. Participants state that ‘it is quite nice just to help people’ (Int.28.1.M) because it ‘feels good’ (Int.14.2.F). The pre-conditions for this experience are that there is a social exchange between a customer who requires assistance with SST usage and a customer/employee who is available to provide this assistance. Incidences of supportiveness experiences are predominantly provided by participants in relation to helping fellow customers. Although some assisted customers
do describe a supportiveness experience, on many occasions the assisted person feels as though they are in the way of other customers, leading to a social tension experience, discussed in Section 6.2.6.

The social exchange characteristic of the supportiveness experience is marked by mutual respect and benevolence between the interacting parties. Participants describe a positive psychological state associated with the supportiveness experience: ‘it’s always nice to feel like you know’ (Int.14.2.F), ‘a good experience’ and enjoyment of ‘a nice exchange’ (Int.7.1.M) between friends or strangers (Int.28.1.M). This would suggest that it is an experience valued by customers, or a value-creating experience. The person who provides the assistance experiences a state of ‘confidence’ (Int.7.1.M) because of their ability to teach another customer; the person who is assisted might enjoy the benevolence of the other customer who has shared knowledge with them, or the chance to interact with local people in a foreign country. Examples illustrating the supportiveness experience are provided below. The first quotation describes the perspective of a customer who is receiving assistance, while the second provides an assistance provider’s perspective:

I booked online. My friend purchased the ticket for me online because I just don't bother doing that...Well, [silence] I could go to a travel agent, but my friend is actually showing their confidence. And so, to give them that pleasure of doing that then, it is a nice exchange. And then I can say, 'Thank you! You are so great for doing that for me!' And they can say, 'Yes, I can do this'. Isn’t that a nice exchange? (Int.7.1.M)

Participant: …I have done that [helping] with online boarding passes for travelling and occasionally maybe in a shop as well if somebody needs help. You might just explain to them maybe if you have got some time.

Interviewer: And does that bother you, doing this?

Participant: No, I don't mind! I don't mind helping. I think it is quite nice just to help people if they need. It is a good experience. (Int.28.1.M)

The service situation is characterised by the contact between a customer who has difficulty operating the SST and a person who knows more about the SST process and is willing to provide assistance. It is noticeable that both the customer being helped and
the customer providing help focus on describing the positive social exchange. Furthermore, the customer who is receiving the assistance views it as a positive interaction with a friend or a stranger, while the customer providing the assistance has a clearly expressed view of respect for the other customer. These perspectives provide evidence of an emergent connection between empathy motivation and the supportiveness experience. One participant suggests that she did not like to make her friend feel ‘inferior’ (Int.17.2.F) because she requires assistance with online booking as evidenced in the quotation below:

*Interviewer: I see. And how do you feel about helping?*
*Participant: Oh, I like that, yeah. I like it, yeah. I don’t pretend I know as much as I do, because I don’t think that’s right. I like to make her feel like I just know, just a little bit more, but not too much.*

*Interviewer: I understand. So you are like teaching and training in a way...*
*Participant: But without letting her know that I know. I don’t want her to feel inferior.* (Int.17.2.F)

The cognitive focus of participants, when reflecting on this experience, is on the positive emotions derived from helping and interacting with another human being. For example, the excerpts below illustrate the expressions of positive feelings used by participants to describe the supportiveness experience:

*Interviewer: And how do you feel about helping [your friend with online booking]?*
*Participant: Oh, I don’t mind. Ahm, it’s always nice to feel like you know. It’s always nice to feel that you have a little bit of knowledge about something. So it feels good when somebody says, ‘Oh, can you show me this?’ It feels good. Absolutely! (Int.14.2.F)

Sometimes the supportiveness experience may be infused with nuances of anxiety from not being able to operate the SST effectively and in this way obstruct other customers from using the SST interface. For example:

I have been helped in Italy recently in a train station in [Italian name]. Somebody came and tried to help me when the machine was refusing my credit card, so it wouldn't take the card that I had. So she [other customer] found me another machine that would take cash, you know, so. Ahm, I suppose, it makes you interact with the locals [laughter]. For tourists that’s a good thing too. But in that situation, she was queuing to use it behind me, so I think she was actually frustrated by...oh, I'd help her [laughter] so she hurries up and gets out of my way. (Int.105.1.F)
The participant in the above excerpt describes a supportiveness experience, but she also suggests that the customer who helped her ‘was actually frustrated’ (Int.105.1.F) because she had her access to the SST obstructed.

The discussion of the supportiveness experience reveals a heightened social awareness of other customers taking part in SST encounters. Customers who have felt themselves to be delaying other SST users express anxiety, while customers who have witnessed others struggling with SST usage have offered help. Since social awareness perceptions determine the customer experience, the theme of social awareness was further explored in the projective sentence technique component. Participants were asked to complete sentences illustrating social presence in SST encounters. Two of the projective sentences describe a situation of customers queuing to use an SST and elicit the theme of social awareness. For example, Sentence 5, *The person in front of me using the train ticketing kiosk was taking very long, so I...* asks participants to complete the sentence regarding their reaction to SST access being obstructed by another customer. Sentence 8, *If I was standing in a queue behind a passenger having difficulties with a self-service technology, I would...* offers a similar situation. The difference between Sentence 5 and 8 is in the implication that the customer is obstructing the access to the SST (by taking a long time) as compared to being faced with difficulties and in need of assistance. These seemingly similar projective sentences generated different responses which highlight the theme of being socially aware and judging the situation.

Sentence 5 elicits a number of possible customer reactions to obstructed SST access by another customer, such as offers of help, waiting patiently, obtaining the service elsewhere, or become passively impatient. All of these reactions suggest social
awareness on the part of the participant with the desire to avoid any negative social exchanges.

Some participants interpret that a customer who is taking a long time is in need of help, so they indicate that they would offer assistance. Other participants elaborate that a certain level of judgement needs to be exercised before approaching a customer; for example, one participant states ‘I think it is a bit of [an] invasion of someone’s privacy if you are looking in over their shoulder’ (Int.19.2.M). The quotation below illustrates what this participant considers appropriate conduct whilst waiting in a queue:

Oh, I waited patiently. Unless it was somebody I felt was maybe a little bit vulnerable, like an elderly person or a tourist, I would offer assistance. But if it was just somebody, a normal adult, I think I would just wait patiently. (Int.14.2.F)

The view of being mindful when offering help to a stranger who is taking very long is evident in the following response to Sentence 5:

The person in front of me using the train ticketing kiosk was taking very long, so I...Helped or asked whether I can help. [laughter] You can’t force it on them either. (Int.27.2.F)

Alternative courses of action include going ‘to another machine or [to] the counter’ (Int.5.2.F), or ‘to the customer service desk’ (Int.15.2.F). This type of reaction relates to seeking an alternative mode to obtain the necessary service without delay or pressuring the other customer, thus avoiding social embarrassment. One participant gives a comprehensive answer inclusive of all the above reactions to such a situation which are aimed at maintaining a pleasant social atmosphere at the service site:

Depending on the situation. If the person, you can see the person doesn’t know how to do it and I know how to do it, I would help. I wouldn’t help if the person just takes their time because we are all different, you just, you know, depending on the situation, you just wait as well. Or if you have an option to go to another self-service machine, you just use another one or you have an option. If you have options, you maybe switch to another option. It depends from the situation, you know, but if a person asks me to help them out with the self-service machine and if I knew how do to it, I would. (Int.26.2.F)
Some participants suggest that they have become ‘extremely frustrated’ (Int.13.2.M), ‘sighed and became passively aggressive’ (Int.24.2.F) and ‘frustrated’ (Int.22.2.F). Even so, participants would still ‘wait patiently’ (Int.1.2.F). These responses are indicative of social awareness when interacting with other customers at the service site.

Sentence 8 described a passenger who was evidently having difficulties. Sentence 8 described a scenario of on-site kiosk usage where another customer was obstructing the access to the machine similarly to Sentence 5. The difference between these two sentences, although some participants suggested that they were similar, is that in Sentence 8 the customer is having difficulties as opposed to Sentence 5 where the customer is taking a very long time. Except for one participant, all 32 participants respond that they would offer their help including the participants who suggest in Sentence 5 that they would become impatient with the customer who is taking their time.

When the customer was suggested to be experiencing difficulties, nearly all of the participants are quick to respond that they would offer their help. Therefore, the fact that a customer is taking a long time is not always interpreted as signifying that they are experiencing difficulties and are in need of help. Participants express concern about invading the other customer’s personal space and the potential to offend them by offering help. The theme of awareness, in other words being patient, tactful and considerate with other SST users when offering help, is clearly evident in the following responses:

I would you know, wait for a while and wait for [a] pretty long while and then I would ask if I could help. Giving them the time as much as they want and if they are still not able to sort it out then... Some people get offended, ‘you know I can do it’. If for a long while, they are still not able to, then ‘Can I help in any way?’ (Int.7.2.F)

Ask them if they wanted some help if they looked really frustrated and lost. (Int.4.2.M)
Ahm, again if I felt they were vulnerable, like a kid or somebody old or somebody with a disability or a tourist or somebody I didn’t think spoke English, I would help. But I think if it was somebody like myself, unless they looked for help, I don’t think I would offer to help. (Int.14.2.F)

It may be suggested that for SST users to promptly offer assistance to another SST user, the latter needs to appear in obvious need of it. The condition that the people appear in need of help noticeably changes some participants’ attitude towards these customers. This can be seen in the different responses that some participants give to the two projective Sentences 5 and 8. The responses of two participants to both questions are provided below as an illustration of this change:

Sentence 5: Tapped my foot, sighed a lot and waited for them to move [laughter]. (Int.23.2.F)
Sentence 8: Offer to help them straightaway. (Int.23.2.F)

Sentence 5: I started getting impatient. Especially, when they are at the ATM, inserting the card 5 times. (Int.2.2.F)
Sentence 8: Help them. (Int.2.2.F)

Therefore, customers’ willingness to assist other SST users may be dependent on their interpretation of the situation; a customer who appears in trouble is likely to be offered assistance while a customer who does not, may provoke impatience and annoyance in fellow customers. The negative nuances which emerge in the responses to the projective sentences suggest that social interactions during SST encounters may be associated with other experiences apart from the value enhancing supportiveness experience. The social experiences which emerge as value-destroying are concern about discrimination and social tension experiences. These two experiences are discussed in the following two sub-sections.

### 6.2.5 Concern about Discrimination Experience

The fifth customer SST encounter experience is value-destroying and was labelled by the author as concern about discrimination due to the evident feeling of concern for customers who have difficulties with operating and accessing SSTs. This experience
stems from the perception that some customers may be disadvantaged from SST implementation, such as elderly people and customers who are not able or willing to use SSTs. These customers are forced to use SSTs in order to ‘get integrated’ (Int.22.2.F), suggesting that people who do not engage with SSTs are discriminated against. Although the concern about discrimination experience was usually discussed alongside other experiences, such as supportiveness and accomplishment, it is still a distinct and emotionally charged customer experience of SSTs. The following interview excerpt demonstrates how one participant introduces his concern that some people are being treated badly because they are not able to use SSTs. The excerpt illustrates the participant view of train company employees’ handling of customers who cannot use the train ticketing kiosks:

*Interviewer: You mean [employees] to explain to them [customers] how the whole thing works?*
*Participant: Exactly! How it works, instead of laughing at them over the counter. I think that is total ignorance! I don't like it. And if I did see, any time I'd see it, I'd interject. None of my business, they could tell me mind your own business, but I am one of these people, you know, who would stand up for the innocent person.*

*Interviewer: Say with [airline X] you can only get your boarding pass online...How do you find that?*
*Participant: No, that's fine, but, I mean, going back to the people that I am referring to. They'll never see a computer, they wouldn't even know what a computer is and they are not going to know what a computer is. And, you know people should give time to these people and treat them with respect. That’s all I have to say on that. (Int.25.1.M)*

In the above extract, the participant clearly expresses anger towards the service provider because there is a perception that customers who cannot use the SST are not treated with respect. His reaction is to defend the customers who he believes are treated unfairly. This perception and reaction are the result of observing and judging other customers’ experiences of SSTs. For example:

*I suppose the only thing that I would feel like for people who don't have access to the internet; it is a little bit unfair. You know, if you are buying a train ticket you can get [a] really good price online and then it is a little bit complex sometimes booking online, as well, so maybe for me it's OK, but it took me time to learn how to use that system. And, then maybe for other people who, ahm, you know, aren't as sure how to use that system, then it's a little bit unfair. It's like two different levels of people who can use technology and people who can't use it. (Int.63.1.F)*
The perception of discrimination is clearly spelled out in the above excerpt in the statement that SSTs may limit the access to the service for people who have difficulties using technology. The perceived discrimination created by SSTs is often expressed as an ‘age divide’. The excerpt below highlights the perception that elderly people are discriminated against by SST implementation.

Participant: I think, you know, my generation and beneath should be OK with it [SST usage], but when you get to people over 50 years old there is definitely an element of concern. They are not used to it, they are too far down the line to change their habits.

Interviewer: Do you say that you are so used to it, it is kind of a habit thing?

Participant: Yes, for them it is. For me I feel, I am OK with it. I am just about young enough to understand how it works. But I am aware that my grandparents, when it comes to paying bills, they still withdraw the money and go to the place to hand over the money. You will never get them transacting through technology. (Int.5.1.M)

The participant in the above quotation observes that technology is very difficult for elderly people because it poses a demand on them to change their habits and learn to interact with technology. These perceptions that some customers may be disadvantaged because they cannot or are not willing to access SST service, evoke an emotion of empathy and concern. This negativity is further highlighted by the perceptions that SSTs are advancing and customers who avoid them will be experiencing losses and this is not ‘fair’ (Int.63.1.F). Overall, the concern about discrimination experience is a value-destroying experience of observing the negative phenomenon of discrimination which SST implementation may represent for certain customers.

It becomes evident in the analysis of the responses to the projective sentences that participants have an image of the type of people who may experience difficulties or avoid SST usage, namely, the elderly. The projective Sentence 4, *Self-service technologies discriminate against certain people, such as...* explores further the participant perceptions of SST discrimination. The projective sentence answers suggest that the discriminated groups include the elderly, people with disabilities, people with
no access to the necessary equipment and people who do not speak the language on the SST interface.

When asked to suggest whom do SSTs discriminate against (Sentence 4), most participants (25 out of 32) promptly name ‘the elderly’. This reveals that there is a preconception about elderly people being unable to use SSTs because ‘they are not used to it’ (Int.28.2.F), ‘wouldn’t understand’ (Int.17.2.F) or ‘maybe don’t have the skills to use the technology’ (Int.18.2.M). The elderly are viewed as ‘not all that technology savvy, so they really don’t know how to use the kiosk or where to insert the card or how to do it’ (Int.7.2.F), and ‘they don’t really know how to use technology’ (Int.30.2.F). The perception that the elderly are discriminated against is constant throughout the responses which is somewhat surprising. The more mature participants in the sample were all SST users, but even so, they respond that SSTs discriminate against the elderly (for example, Int.8.2.M and Int.17.2.F who are over 65).

The other group of people often referred to as being discriminated against are people with disabilities. Participants mentioned ‘the blind’ (Int.21.2.M), people ‘in wheelchairs’ (Int.15.2.F), people with ‘decreased mobility’ (Int.21.2.M) and people ‘with eye-sight problems’ (Int.9.2.F). It is evident that the listed disabilities may be associated with old age as well.

Furthermore, SSTs are suggested to discriminate against people who have no access to the necessary technology because they ‘can’t afford the technology’ (Int.18.2.M), ‘they may not have access to PCs or laptops of their own’ (Int.19.2.M) or they ‘don’t have credit cards’ (Int.16.2.M). Customers who do not possess sufficient skills to operate the SST may be discriminated against because they are ‘not computer literate’ (Int.8.2.M) and ‘cannot use the internet’ (Int.12.2.M).
And lastly, SSTs are suggested to discriminate against people who do not speak the language on the SST interface. Participants suggest that the language options may not be enough to accommodate all customers, ‘because most of them [kiosks] are written in foreign languages’ (Int.2.2.F) and ‘everything is in English’ (Int.27.2.F). The discriminated customers in this group may also include foreign tourists (Int.20.2.F).

The theme of discrimination is also associated with concerns about the employees who may be at a risk of unemployment due to SST implementation. Two of the responses to projective Sentence 4 indicated this:

Employees of the company, older people, other people who don’t like technology. (Int.3.2.F)

Employees and then again as well customers in certain situations. (Int.26.2.F)

Participant concerns about job losses due to SST implementation arise in the discussion of their perspectives on SSTs in both Stage One and Two of the research. For example:

I worry that it is doing people out of jobs too. It just worries me, because when, say, I am old enough to remember when we all went and everything is face-to-face and I just think: ‘God, has it done people out of work?’ you know. Ahm, not everybody is, you know, in the position that they can work in technology. (Int.61.1.F)

I feel sad in some ways that the people that were employed by those people [travel agents] to look after us, they are no longer needed. That makes me sad, because they were kind of superior beings in their own way; they could do all this. Now they are no longer needed. This machine has taken over. [silence] And but we have to accept change. And we have to accept that technology is the way forward. We don’t have any choice in the matter. (Int.17.2.F)

The concern about discrimination experience displays clear links to the empathy motivation to help SST users who are experiencing difficulties. This concern may also extend to empathy for service employees. The interaction between SST users and employees is not straightforward because of the obvious negative perception of the people who do not use, or experience issues with technology usage. Social interactions are also infused with elements of social tension which is discussed in the following section.
6.2.6 Social Tension Experience

The sixth customer experience of SST encounters is labelled by the author as social tension and it too is a value-destroying experience. This label was chosen to reflect the customer state of feeling frustrated and annoyed with the behaviour of a social party involved in the SST encounter, such as other customers or company employees. This experience emerges in participants’ reflections on social interactions between strangers, friends or employees during SST encounters. The frustration and annoyance underlining this experience appears to stem from the misunderstanding of other peoples’ actions and responses during the SST encounter. This uncertainty when interpreting others involved in the SST encounter, leads to a lack of confidence in handling social interactions and hence social tension experiences. For example, expressions such as ‘I get really nervous’ and (Int.24.2.F), ‘very, very frustrating’ (Int.23.2.F) are used by participants to describe how they feel during interactions with others involved in the SST encounter, which suggests this is a value-destroying experience for the customer. The following quotations illustrate the experience of social tension and the service situations in which it has occurred:

*Interviewer: And how do you feel helping him [father]?
Participant: It is fine. It can be frustrating sometimes. He gets angry with the machine; even making his email address the other day, so they can book flights and things. He was on the phone to me and he was getting angry saying: ‘How do I log out!’ And I didn’t even have to look at it. I just knew, top right hand corner, press down, fifth choice. And all of it is so natural to me and he is freaking out at the other end of the phone, very, very frustrating. (Int.23.2.F)

There is a counter beside the ticket machines, so, there are personnel there, but they are often less friendly than the machines, you know. Even though you mightn't know [how] to use the machine, they will just point you. (Int.63.1.F)

This puzzlement at other parties’ responses to the service situation invokes feelings of frustration. For example, the participant in the first quotation above is puzzled at her father’s inability to operate technology effortlessly. The participant in the second
excerpt above feels the response of the employee she contacted was inappropriate which leads to the social tension experience.

The early stages of SST adoption by customers may create social tension with employees who are encouraging customers to use the SST channel. This may again create puzzlement on the part of the customer as illustrated in the quotation below:

Sometime if you go into the tax office, there is a big queue and they'd say to you: 'Why don't you pay online?' And, 'You are working here! It's a job for you!' you know. So, I find in the tax office, they try getting you to pay online. So, I've started to do that now... It's like they wanted to make their life a bit easier, they won't deal with the customer like. (Int.116.1.F)

In effect, the participant in the above quotation is not opposed to SST usage but cannot comprehend the employee’s behaviour because they are seemingly acting against their own interest of keeping their job.

The social tension experience may be associated not only with puzzlement at others’ behaviour, but also with expectations of a negative social reaction by others. For example, the excerpt below illustrates the interpretations of a participant in relation to offering help to a customer who is experiencing difficulties with an SST:

I find that if it is somebody I don't know, they are stressing out, you are nearly better off not trying to help them, because they are already highly sensitive. You know, they are stressed and [expletive]. So, I mean, you can tell them the right button, but they are more likely to say, you know: '[expletive], I'll manage that!'... (Int.38.1.M)

This participant fears that other customers might react negatively if they are approached and offered help. This state of being unsure about the response of the other customer leads to social tension in the service situation. The expectation of a negative social response gives rise to a social tension experience in the below excerpt relating to a supermarket self-checkout:

When I am there, there is a queue behind me, people... I start stressing out, because there are people behind me. I am immediately conscious; if I mess up, somebody is gonna be getting impatient with me. And so I get really nervous. And when I get nervous around technology, I just tend to shut down. So if something goes wrong, I will just kind of walk away. I just leave the
situation, or I will maybe look for somebody to help me, ‘please, help me’. But I am still creating a longer wait for the people behind me. So I think it all has to do with kind of; if I go to a person and something goes wrong, it’s not my fault, you know. So I don’t have to panic, and I don’t have to worry if someone at the till is taking longer. Nobody is looking at me, whereas if I am at the self-service, God knows what they are saying about me in their heads. (Int.24.2.F)

In her account, this participant uses the following words to describe her emotional state: ‘stressing out’, ‘conscious’ and ‘really nervous’. This negative emotional state is the result of her fear that she may be ‘blamed’ for creating ‘a longer wait’ for the rest of the customers. The expectation of a negative social response from the other customers in the queue appears to have connections to her desire to preserve a positive social image in the eyes of others. Therefore, there are negative perceptions of the SST non-user or the person challenged with SST usage.

The negative perceptions of the SST non-user are further explored in some of the responses to three of the projective sentences:

Sentence 2: The person who booked at the travel agent wanted to...

Sentence 6: Some passengers/tourists choose to by-pass self check-in, and instead go straight to a member of staff at the desk because...

Sentence 9: People who don’t use the internet to book their flight/accommodation are...

Although some of these sentences could be completed by providing an image of the customer or by describing a service situation/functionality, most participants opt for the customer image. Many of the responses (19 out of 32 for Sentence 2) relate to the perceived characteristics of the SST non-user, that is, their desire for personal contact during service encounters, anxiety around technology and avoidance of responsibility. In some responses, it is suggested that this image of SST non-users may be slightly
offensive. The predominant negative imagery of the SST non-user also shapes the participants’ views on the social interactions between fellow customers.

People who do not book travel online (Sentence 9) are described as ‘traditional’ (Int.2.2.F), ‘conservative’ (Int.4.2.M), ‘silly’ (Int.16.2.M), ‘stupid’ (Int.4.2.M), ‘behind the times’ (Int.23.2.F) and ‘old’ (Int.15.2.F). For example, these are some of the responses:

Strange, old, weird. (Int.3.2.F)
A different segment of society, you know. (Int.9.2.F)
Maybe illiterate [laughter]. (Int.12.2.M)

SST non-users are suggested to be operating at a disadvantage because they have no convenient access to better service offers. They are ‘missing out on offers’ (Int.1.2.F), ‘limiting their choices’ (Int.19.2.M) and ‘missing out on an extremely good range of services’ (Int.8.2.M). Furthermore, it appears that the marginalisation of SST non-users may have some underlying roots in how SST users view SST non-users.

The regular users of travel agents to book their travel are deemed to want to ‘have their hand held’ (Int.16.2.M) or they ‘wanted to get personal advice and talk a lot! [laughter]’ (Int.27.2.F). Some interviewees clearly indicate that they do not belong to this group of ‘traditionalists’ (Int.2.2.F) which is evident in exclamations, such as:

[silence] Who uses travel agents!?! (Int.23.2.F)
[silence] [laughter] I haven’t used a travel agent for so long. (Int.19.2.M)

These types of responses also confirm that third party projective techniques do elicit first person accounts.

Some of the responses suggest that SST non-users are being viewed in a negative light without any consideration of their circumstances. For example:
Simplistically put, they are silly, but I suppose the practical thing is it could very likely be things like the question above [Sentence 4] that they are disadvantaged in some way or other. (Int.16.2.M)

Another participant even passionately defends these people, which implies the unfair, negative image that is generally inflicted on them.

[silence] They are just normal. I mean, if they don’t know how, then they shouldn’t have to do it. They are not stupid, they are not illiterate, they are not foolish, they just don’t know. (Int.17.2.F)

The above statement implies the concern about discrimination experience and its links to the negative perceptions of SST non-users. A conclusion to the discussion is provided in the participant’s comment below where she defends SST non-users, but also points to the reality of the situation that they are not viewed as being contemporary:

Perfectly within their right not to use the internet to do it, but behind the times. (Int.23.2.F)

This response also implies that SST usage should be optional on the part of the users, but their choice as a customer would reflect on their image. The image of the person who may opt not to use an SST is further explored in Sentence 6 which seeks to elicit the customer perception of SST avoidance. Many of the responses to Sentence 6 (25 out of 32) relate to the perceptions of the SST non-user as being technology anxious, preferring personal contact, and avoiding responsibility. The customers who choose to go to the personal check-in counter are referred to as ‘a conservative traveller’ (Int.4.2.M) or ‘old school guys’ (Int.31.2.M). The desire to avoid responsibility and ‘make things simple’ (Int.12.2.M) is characteristic of these people as is evident in the following quotation:

They want to know that they’ve actually got checked-in and that somebody else is going to take the responsibility for them; that they don’t have to do it themselves. (Int.13.2.M)

In summary, the social tension experience is a value-destroying customer experience which stems from the perception that interactions with other customers, or employees, during SST encounters are awkward, aggravating or embarrassing. The projective
sentences responses also reveal that the sense of social unease arises from the negative perceptions harboured about people who are technologically challenged.

So far, the discussion of the findings has provided the characteristics and evaluation of SST experiences and the customer motivations associated with these experiences. There are six customer SST experiences of which two are value-creating and four are value-destroying. In order to further understand customer experiences of SSTs, it is equally necessary to understand how customers experience their own role in SST service. Having discussed the six types of SST experiences, the following section examines the roles which customers undertake in SSTs.

6.3 Research Objective Three: To examine the roles that customers undertake in SST encounters in the tourism sector

The third objective of this research is to examine the roles that customers undertake in SST encounters in the tourism sector. The author identifies the roles by interpreting what customers say they do during the SST service encounter. The role labels are chosen by the author to reflect the customer description and are abstract concepts which are not specifically offered by the participants. For example, in the customer reflections of SST experiences, some participants describe themselves as an actor during the SST encounter while others perceive themselves as interacting effortlessly with the most efficient/convenient channel in delivering the service; hence, undertaking the role of a convenience seeker. On other occasions, participants describe themselves as doing the necessary ‘work’ towards obtaining service benefits, and as such they undertake the role of a motivated worker. In this manner, the author interprets seven customer SST roles in total: convenience seeker, motivated worker, technological sweeper, judge, enforced worker, unskilled worker and assistance provider.
Customers in the roles of convenience seeker, motivated worker, judge (positive) and technological sweeper tend to have SST accomplishment experiences. Lack of control and manipulation experiences tend to relate to those customers adopting the role of a judge (negative), enforced worker and unskilled worker. The two social experiences of supportiveness and social tension are associated with the unskilled worker and assistance provider roles and the concern about discrimination experience with the roles of a judge (negative) and assistance provider. SST usage encounters at times include incidents of SST failure and recovery. Customers often undertake a role in service recovery and therefore the customer SST roles are also illustrated and examined in the context of service failure and recovery. Although customer SST roles may be undertaken simultaneously during an SST encounter, they are discussed separately in this section. The analysis of the seven customer roles provides an explanation of how each role has been interpreted by the author, supported with excerpts from customer accounts of the SST experience. The discussion begins with the roles associated with the value-creating accomplishment experience, namely, the roles of convenience seeker, motivated worker, technological sweeper and judge (positive). The section continues with the roles associated with the value-destroying manipulation (for example, the judge (negative), and enforced worker) and lack of control experiences (for example, the enforced worker and unskilled worker). The discussion concludes with the help-seeker aspect of the unskilled worker role and the assistance provider role which may be associated with the value-creating supportiveness experience or the value-destroying social tension and concern about discrimination experiences.
6.3.1 Convenience Seeker – ‘I am effortlessly engaging with an efficient SST option’

The first customer SST role is identified by the author as a *convenience seeker*. Some participants describe themselves as seeking out SST options which will provide benefits in return for minimum customer effort. These customers suggest that they have evaluated all other service options and have chosen the SST option as the one which suits them best. This obvious convenience orientation, which was the essence of these participants’ engagement with an SST, was the reason for the author’s choice of convenience seeker as a label for this customer SST role. The characteristics of the convenience seeker SST customer role include actively embracing SSTs which provide them with more convenience, lower price, enjoyment and control than other service channels, but are not perceived to require excessive customer inputs. Therefore, when SST customers undertake the convenience seeker role, they seek hassle free, effortless service encounters. During SST failure incidents, customers may also undertake a convenience seeker role whereby they recover the service, and do not perceive the service recovery as burdensome.

The role of a convenience seeker is illustrated in the excerpt below clearly illustrating the extent to which it is much easier for the customer to deliver the service via an SST:

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Recently, I’ve started using the electronic boarding passes. I frequently fly between Zurich and London, and so it's quite nice being able to... I can download the boarding pass on to my iPhone beforehand and then when I get to the airport, I just hold my iPhone under the scanner. You don't need to print anything, you don't need to go to the desk to pick up your boarding pass, so it saves time, and it means you have one less item to carry. It's quite handy. (Int.80.1.M)
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The customer role is experienced as doing as little as possible to obtain a very efficient service. This is noticeable in expressions such as ‘I just hold my iPhone’ and in the emphasis on how much the customer ‘does not need to do’ in order to obtain the service. The convenience seeker SST customer role is clearly outlined by a participant
when describing his interaction with an online flight search engine. The excerpt below once again highlights how little the customer perceives he has had to do because the SST is so efficient, with comments such as ‘it is all there for you’ and ‘it is entirely smooth’:

And it [the search engine] would come up with a whole range of costs for the dates we are thinking of; a range of quotes from different airlines, ahm, they are all there for you, you can choose from them... So it is all online and it is entirely smooth. (Int.8.2.M)

When customers perceive their SST usage role as a convenience seeker, they highlight the convenience benefit from SST usage and the ease of delivering the service, as illustrated in the excerpt below:

I'd always use the self-service [ticketing machine] because there’d rarely be as many queues in the self-service one in comparison to going to the desk and dealing with the staff member. So just the convenience of it I think, it’s very quick, simple to use, just touch screen, put in your money and you have your ticket. (Int.28.2.F)

The following participant’s comment on his usage of a travel comparison website further illustrates the role of a convenience seeker as involving reduced customer effort during SST service:

So for me it’s more accommodation and flights in order to compare, and not to have the need to compare every single characteristic, for example, the location and then the price and then the quality of the room. By using these [hotel booking] websites you can have a single information which is a grade out of ten and with a lot of reviews. For example, when you choose a hotel and you have more than three hundred reviews with a grade and the hotel is graded maybe 9.2 out of 10, you don’t need to check every single characteristic, you know that the hotel is fabulous. (Int.31.2.M)

The above excerpt is indicative of the customer desire and appreciation of the SST reducing the amount of searching and comparisons that he needs to perform. Therefore, it becomes evident from the discussion thus far that in a convenience seeker role, the customer appreciates having to perform fewer activities (such as searching, and filling in information) to obtain the service.
The SST convenience seeker role may also be undertaken during failure incidents where customers suggest that service recovery does not require much effort on their part. There are minimal excerpts from the data indicative of a convenience seeker role during SST failure incidents. This suggests that SST recovery is not often convenient and easy for the customer. The excerpt below illustrates a customer undertaking a convenience seeker role when recovering online shopping overdrafts:

But what I find very good in the States is, if I had ever any issue with my, you know, retail transactions online, I only have to submit to another online system, to my credit card company, and they will refund me. No question asked because I probably have such a good reputation with them, because I have been using their credit card for 15 years. I have never had any issues, so they know that if I email them and say: 'Hey, I was overcharged 600 dollars', they would immediately refund it to me and they will tackle the vendor. That's always a pleasant experience. So then, I won't have to deal with the vendor directly, the credit card company takes care of all that for me. (Int.50.1.M)

The participant in the above excerpt expresses a view that his role in service recovery is easy and takes very little effort, again demonstrating convenience seeking tendencies. Customers do not mind taking part in SST service recovery if it is convenient and easy. Indeed, one participant suggests that he prefers to recover the SST service, (in this instance a self-service photo copier) instead of calling a member of staff for assistance. He proposes that SST failures may be made less frustrating for the customer if they are provided with step-by-step instructions of how to fix the SST where possible:

But there is less, ahm, you know, self-service stuff [instructions to repair a photo copier] for repairing stuff. See you have to call somebody in then and that's labour intensive and time, people don't rely on time. So that's the only thing that I see with, because people could fix printing machines and credit machines easily if there was like step-by-step stuff [instructions]. And there has to be authorisation and someone, you know. (Int.121.1.M)

Having presented the customer role as a convenience seeker, the following section analyses the second SST customer role, that of a motivated worker.
6.3.2 Motivated Worker – ‘I am able to do the work in exchange for service benefits’

The second customer role identified by the author is that of the motivated worker. This label, chosen by the author, reflects participant descriptions of their SST service activities as necessary ‘work’ on the part of the customer in return for service benefits, such as control, convenience, enjoyment or lower price. In contrast to the convenience seeker role, participants undertaking the role of the motivated worker, perceive that they have a responsibility to contribute towards effective service delivery (by acting as workers), as opposed to engaging in minimal effort, as displayed in the convenience seeker role. This responsibility includes providing the required customer inputs and cooperating with the service provider where needed. The motivated worker role in service failure episodes is evident in customers doing everything in their ability to recover the service.

Parallels may be drawn between customer perceptions of the motivated worker SST usage role and characteristics of an employee-employer relationship. The following interview excerpt is from a discussion of online flight check-in and the printing of boarding passes. It illustrates aspects of the motivated worker role, such as gaining valued service outcomes, observing standards of performance and learning from other customers:

Participant: So I would check-in online and then go straight to the gate. You know, that’s one thing that I find quite good. I am not an airport person. I don’t particularly like them [airports], I don’t find them entertaining. I don’t see the reason why anyone would want to shop in an airport.

Interviewer: So you don’t mind being asked to print out your boarding pass?

Participant: Not at all, no, no, unless my printer at home runs out of paper which of course can happen, or the page faded [laughter]. And they [airline] are quite sticky on that. If they can’t read it, or if the names have changed or anything like that, they will charge. You have to go to the desk. Because that has happened to my sister. Yes, she was caught out for quite a bit of money on that because they couldn’t read it you know.

Interviewer: How do you feel about this issue when they couldn’t scan it [boarding pass]?

Participant: Well, I feel sorry for her that that happened, but it makes me make sure, yes, it is well printed and I can see the ink. There is enough ink in the printer. (Int.9.2.F)
Therefore, in a motivated worker role, the customer feels like a worker who has to complete a ‘job’ in order to receive a ‘wage’ in the form of valued service benefits. This customer perspective of their role is further emphasised by the perception that customers need to achieve certain performance standards or they will be reprimanded by their ‘employer’ (the service company).

A customer may undertake a motivated worker role in return for service benefits, such as achieving better customisation through SST usage. In the quotation below, a participant suggests that when organising her holiday trip online, ‘it took her a long time’, but she got exactly what she wanted:

I had [organised] a holiday for the four of us for three weeks plus a car hire, plus staying with Native American people. plus... And I did everything online. It took me a long time because I really knew what I wanted. I wanted a bit of wilderness, horse riding around and I wanted, you know, a holiday of a lifetime really... In that case, it was booked through [Site X], eco type holiday. (Int.9.2.F)

The motivated worker displays awareness and acceptance of the customer inputs required in order to complete an SST transaction as illustrated in the following excerpt:

I mean often normally what happens when you go to a hotel website, of course, there is a little form on the side from where you select the different options and then they show you what’s available. So it’s not all there on the front page, but I don’t mind that because that’s part of actually just telling them what you want. (Int.21.2.M)

The quotation above suggests that this participant has a clear idea that he has a job as a customer to fill in the form required by the SST provider, which he deems to be a fair expectation. The excerpt below further illustrates that customers are motivated to use SSTs, but like others, this participant recognises the large amount of effort necessary on her side. The participant describes her role as involving many hours of research in order to gain the benefits from booking online herself:

We feel that we have more choice now; that we can choose [from online holiday offers]. Whereas if you went into a travel agent, they more or less told you: ‘Well, that’s all I’ve left. Choose what you want from that and if you don’t next, please.’... But you do spend hours looking and researching [online], I found that [laughter]. I felt I was in Tenerife 40 times rather
than once, because going on the internet and looking at it and checking it out, and I felt as if I knew the island before I arrived. (Int.20.2.F)

The motivated worker takes their responsibilities seriously when using SSTs. In this role, customers will double-check their inputs and do everything within their abilities to contribute to the SST delivery. In the excerpt below one participant describes her role of a motivated worker when booking airline tickets online:

I said to [husband’s name], ‘Go back and check, go back and check, make sure we got the right site page open!’ So, I would be a bit nervous like that... Because if you make a mistake, you make a mistake and it is your own mistake online... I am sure most people would just book it. I like double-checking, making sure that I have the right date, the right venue, dates and so on, you know. (Int.70.1.M)

The above excerpt indicates this participant’s desire to avoid any mistakes and service failures. The motivated worker role is also evident in SST failure episodes when customers willingly provided inputs towards service recovery. A common response to technology failures involves the customer trying to solve the problem there and then before contacting the service company for help. The role of the motivated worker during service failures is differentiated from that of the convenience seeker by the perception that they extend considerable effort towards recovering the service. The customer may view themselves as partly responsible for the failure which motivated their extended attempts towards self-recovery, as is evident in the following quotation:

I then discovered that I had made a mistake [laughter]. I shouldn’t have booked [train] to go to Oxford at all. But by the time I discovered that, it was too late to kind of change anything. So I just booked another ticket online for the same service, to get a connecting train to where I was supposed to be going... The extra tickets were only about 5 pounds. It wasn’t that bad. (Int.21.2.M)

Similarly, another participant re-books airline tickets after realising she has made a mistake in the booking dates. She evaluates the cost of recovery (expected time and efficiency of recovery) against that of re-booking and decides to do the latter:

And then I’d kind of heard from friends before that to amend the ticket, to amend the date they always just check the current prices and then charge you the difference plus kind of a handling fee or something. That’s why I just went ahead and thought ‘OK, I just have to fix it now. I want
to get it done now and don’t be on the phone like forever’ or wait until they call me back or something. So that’s why I just went ahead and booked another flight, you know. (Int.27.2.F)

On one occasion, a customer recounts how she has illegitimately applied a crafty service recovery of a banking ATM failure because she is in a hurry and knows that initiating recovery might take time. Below are some excerpts from the incident:

…and the ATM just took my card, didn’t want to give it to me back. And I just went bananas, and I was like ‘Oh, my God what am I going to do now!’ And it was like, it was late at night, like 9 or 10 o'clock… But thank God this time I had like a small scissors in my bag, so I pulled my card myself… I was on my way to go out, so I was in a hurry. (Int.30.2.F)

It is clear in the service failure incidents related above that the participants have initiated self-recovery because they evaluate this as the fastest and most efficient way for obtaining the service. It is also evident that these participants are prepared to provide the extra inputs in terms of money and time to execute the service recovery. In their descriptions of their roles of convenience seeker and motivated worker, participants occasionally describe interactions with more than one technological interface or SST type during a service encounter. The interaction with multiple technologies enhances the experience positively, giving rise to the author’s identification of the third role, that of a technological sweeper.

6.3.3 Technological Sweeper – ‘I sweep between technologies for optimal results’

The third customer role identified is that of a technological sweeper. Some participants relate their experiences of interacting with more than one SST type during a service encounter and note the enhanced benefits of the encounter. Participants describe themselves as multi-channel SST users; they are acting like a ‘sweeper’ who swiftly alternates between various technological interfaces and modes. This role reveals a unique customer perspective of creatively and independently combining various SSTs in order to achieve a service goal in the best possible way. The role of the technological
sweeper becomes more prominent during Stage Two of the research, at a point when mobile devices were gaining higher levels of adoption amongst consumers.

In this role, some participants do not differentiate between the various SST interfaces, but view them as electronic interaction portals for self-service. This view allowed full freedom to the customer to interact with the preferred SST at the time and then easily switch to another. The theme of technological blending and integration is prominent in the data. For example:

So I think those technologies are blending. I don’t think it really makes any difference if it is a phone, or an iPad, or a PC. I think it is just interacting electronically. (Int.11.2.M)

I see the iPad and the phones as a little computer. So I don’t differentiate between that kind of technology and the other kind of technology as long as they do the same thing, which is going to a website or connecting you to a person that you want, or to the company that you want. (Int.1.2.F)

Elements of the technological sweeper role are evident in the roles previously discussed, but this role specifically emphasises multi-channel SST usage. At times, customers combine channels with the purpose of reducing customer effort in the service delivery process. Few participants indicate that they would use the smart phone to search for travel information, check availability and prices, but rather they would prefer to book on the laptop (for example, Int.4.2.M; Int.14.2.F; Int.16.2.M; Int.31.2.M). These participants combine the convenient mobile access from the smart phone with the easier execution of the transaction from a computer. One participant even suggests that it is not so much that the mobile is small and hard to navigate, but booking on the PC is what he is used to:

I suppose in terms of visualisation they enhanced the technology hugely in the last couple of years, but I suppose I’m just used to using the laptop to make those sort of bookings, so that’s why. (Int.25.2.M)

For example, some participants (Int.16.2.M; 31.2.M) suggest that they prefer to book and check-in for flights on their computer because there is less chance of them making a
mistake, but they opt for receiving the boarding pass on a smart phone because this would be more convenient while travelling. A participant's description of a technological sweeper role is illustrated in the excerpt below:

You check-in online and then you receive a paper with your name, the number of the flight and stuff like and a flash code. After that you can choose, for me being quite concerned about all the eco-friendly problem, I keep it on my smart phone and if there is a flash code, then I go to the terminal and to the check-in and just show my ID. (Int.31.2.M)

Therefore, multiple SST platforms available to customers provide the freedom to use the interface or a combination of interfaces which might enable them to craft an enhanced experience. For example, the following excerpt illustrates how one participant integrates various SST platforms while making her travel arrangements:

I don’t have time to be running around to all these different places [travel agents], whereas I was able to look up flights when I was on the way to college sitting on the bus, looking at my phone or in the library on my laptop, or using a computer in the college. It was all so handy. (Int.28.2.F)

The technological sweeper role may become more evident in the tourism context where the initial organisation of a trip takes place at home and service consumption is actualised away from home. Therefore, the technology which had been available to the customer at home may no longer be available whilst they are away from home. The continued SST usage is then dependent on the ability and opportunity for the customer to switch to a different technological platform. In the previous chapter, it was demonstrated how customers may experience lack of control when they cannot access the required technological equipment. The lack of control experience might thus relate to a situation wherein customers have no access to a PC and a printer to print an air travel boarding pass whilst on holidays. The excerpt below illustrates the role of the technological sweeper within the tourism context:

It’s important when it’s linked to tourism because you are by definition abroad, outside your home and you don’t have the proper access to all the information you may want. So the fact that you are abroad, you are walking, you are hiking and stuff like, you have all the information on a small device, it’s handy because you keep being a customer for them [you can continue using the
service]. Even if you are not at home, you are not in front of your computer, you are not in front of your travel magazines, you keep being a customer for them. So you keep using their service. (Int.31.2.M)

This excerpt clearly highlights how multiple SST interface usage may result in a smooth, uninterrupted access to the desired service for this participant. The tourism context is characterised by changeable environments throughout the consumption process. These changes in the service environment may render one SST interface more suitable than another and hence necessitate a transition for the customer. Below are some excerpts from a discussion on using a PC as opposed to mobile devices for self-service during travel:

Ahm, say a couple of times, I would have been staying in hotels in [Airport X], and I would have been looking for directions to their hotel, so I would use their app. Or they have websites specifically designed for smart phone, and I have used those a couple of times... I probably would prefer doing reservations on a desk top, I think, and using a mouse... I just think it is easier to navigate the menus a little bit, and you are not doing so much with your finger and I think it is just a little bit quicker. (Int.14.2.F)

Another example of a complementary multi-channel SST usage is evident in the interview excerpt below where the participant describes how he was sweeping between a number of SSTs in order to make the booking:

Now I knew I was staying in the Docklands, but the Docklands is subdivided into five or six areas online. It took me an awful long time; I ended up with three or four windows open on my computer. One of the map, showing me where the conference was, another with the transport route, and another where I find each hotel. (Int.16.2.M)

Another common multi-channel SST usage approach adopted by technological sweepers involves the thorough research of the website of the service provider, but also the consulting of intermediaries (Int.4.2.M), seeking recommendations from friends (Int.15.2.F) and going through customer online reviews (Int.7.2.F; Int.10.2.M; Int.31.2.M). Such customers take seriously their task of ensuring the quality of their service experience, as may be evidenced in the extract below:

Honestly speaking, I rely more on the reviews than on the information by the hotel companies because, ahm, almost all of them [laughter], they just say the same thing. ‘We are 5 minutes from
The technological sweeper role during service failure episodes is evident in the way that participants quickly transfer to another SST mode which may deliver the required access to a service. The following example illustrates a situation wherein an airline’s website has failed to provide the necessary service, and thus the customer identifies an intermediary website which can provide the service:

And the strange thing is often if you go directly to the air plane websites they cannot accept your credit card, but if you go through a search engine, like [intermediary X], they can. It is all to do with credit card requirements. (Int.5.1.M)

The above situation is reminiscent of the motivated worker role during SST failures, but with the difference that the technological sweeper alternates between SST options to obtain the service while the motivated worker remains in the service channel. Furthermore, during a service failure situation, adopting the technological sweeper role enables the customer to recover the service by switching the SST channel. The opposite situation of shifting to the intermediary website when there was a failure to the service provider’s own site is illustrated in the excerpt below:

So I prefer having the name of the company and having the knowledge that I’m going to fly with [airline X] or maybe [airline Y] or [airline Z], and then after that if I don’t like the [intermediary] website or I don’t like the structure of the website, I can go on the direct website of the company. (Int.31.2.M)

Multi-channel SST usage is also complementary in situations where one SST fails to provide the full service to the customer. For example, it may be evidenced in the following excerpt that a hotel website does not offer an English language version, so the participant uses Google Translate as a response to this SST failure:

It was for a small Polish hotel and you know the Google translation of that website kind of didn’t... It wasn’t very good, so I wasn’t able to kind of make sense of one particular thing on this website, so I did actually have to contact them [via email]. (Int.21.2.M)

An unsatisfactory outcome from one SST channel may be the reason for which a customer undertakes a technological sweeper role and obtains the necessary service in
an alternative service company SST channel. For example, the excerpt below is from a participant’s account of an online train ticket booking failure followed by a lengthy personal recovery and eventually the customer opted for a more suitable SST mode:

And ultimately after about five minutes of being on hold and another two minutes of conversation, I got refunded. And they said to go through the process and book the tickets [online] again. I said fine, I will book them there when I am standing in front of the ticket machine in [Airport X] rather than doing them online, in case I get to the same mess I got. (Int.21.1.M)

The three roles of convenience seeker, motivated worker and technological sweeper are described by participants during SST accomplishment experiences. The following section presents the role of a judge which is associated with the accomplishment experience, but also lack of control and manipulation experiences.

**6.3.4 Judge – ‘I am a good judge of SST quality’**

The fourth customer role, interpreted by the author, is the role of the judge. This role reflects the cognitive involvement of customers in inspecting and finding problems with SSTs while using them. Participants in this role perceive that they have the confidence and expertise to judge the SST service. The judge label is deemed appropriate by the author based on the strong evidence of evaluations of justice which customers are inclined to make during the SST encounter. Judges might reflect on their actions in a cognitively involved manner by discovering possible improvements to the service. Furthermore, judges may express constructive feedback and even share it with the service provider or other customers. Two aspects are evident in this role, namely, positive and negative aspects. The positive judge reflects a customer perception that they are contributing constructive feedback which showcases their expertise and may be of value for improving the service. In contrast, the negative judge is involved in criticising the company’s SST, but does not, or is not facilitated to contribute constructive feedback to the company or other customers. It is important to make this
distinction since the positive judge contributes to service improvement and innovation, while the negative judge may only experience frustration during their SST usage and thus spread negative word-of-mouth feedback.

The expression of the negative judge role may be observed in the excerpt below relating to a participant’s experience of booking accommodation online. This participant expresses criticism of the SST process because it was not as simple as he would have liked it to be. The participant describes how he identified the problem and had the confidence in his experience with SSTs to suggest a possible solution, but did not do so:

I ended up with three or four windows open on my computer. One of the map, showing me where the conference was, another with the transport route, and another where I find each hotel… again it was all using self-service technology, but I feel that I had to use far more of them than I should have had to. You know, if there could be more integration of the accommodation with the transport with maybe the venue I was visiting; kind of joined up thinking. What is happening is you’ve got very good online travel advice, you’ve got very good websites for hotels, if you know where they are. (Int.16.2.M)

The following interview excerpt illustrates the negative judge role that this participant undertakes in relation to a site’s terms and conditions section. This participant criticises the lengthy document that customers are required to read and expresses his opinion on how the information should be presented:

As a customer, it is not possible for us to go through that 6 pages of rules and regulations. Probably you have seen that even for the flight, you may get the rules 5-6 pages. And I don’t think none of us knows what exactly it is… Probably there should be around 10-15 key points, means they can provide the 6 pages, but they should provide the key points what exactly we should know as a customer. (Int.10.2.M)

The above participant reflections on the SST process may represent valuable feedback for the service provider, but he does not suggest that he intends to bring his feedback to any particular company’s attention. The judge role is described by participants who have experience with a similar SST from another company. This knowledge has given them confidence to benchmark SSTs and undertake a judge role. The following participant comment is in relation to a local bus service timetable app:
Whereas I’ve had better experiences in London or Paris where you have your app for the Tube or the Metro, it will tell you it will be here in 3 minutes and it shows up in 3 minutes. It’s updated a lot quicker. I think Irish companies need to catch up seriously, yeah. (Int.23.2.F)

It is noticeable in the above statement that the customer is objective in their evaluation based on examples from their own experience. Although the participant expresses her judgement in the manner of an ‘expert’, she does not indicate that she has, or intends to, provide this feedback to the service company in any way. Similarly, another participant objectively benchmarks the SSTs of two airlines, but suggests no intention of providing feedback to the service provider:

... we are then connecting using [airline Y] and their self-service technologies are more advanced than the likes of [airline X], and it is easier to do it [scan a boarding pass]. (Int.5.1.M)

In the role of a judge, customers not only evaluate the SST processes, but may also provide recommendations and feedback to the company which is the positive judge aspect of this role. At times, in the judge role, participants engage in ‘consulting’ the company about faults in the service. The excerpt below suggests that for some technology proficient customers, it is a matter of benevolence towards the service company:

I used to be in the technology industry, so when I see something that I think is ridiculous or redundant, I would usually shoot them up a quick note saying...this stuff doesn't work right, you should do it this other way. (Int.58.1.M)

When customers engage in providing feedback to the service company, taking on a positive judge role, they tend to be pleased that their input will be recognised:

A website that had something very wrong on it or wasn’t working, something pretty obvious on their website, and I emailed when I got back home. And they hadn’t realised that the system was down and they were very thankful; and that you kind of think: ‘Yes, I’ll do that again!’ (Int.16.2.M)

Customers also undertake the negative judge role in SST failure and recovery incidents by providing evaluations of the service situation. The judge role is illustrated in the following interview excerpt from participant reflections on the situation of a website
break down:

If I am actually looking at home, that I am actually planning a trip, and that site closes down, unless the package was particularly cheap, ahm, I might not go back into it again. I get so frustrated, I just get so annoyed because I feel, if a company, any company that wants me as a client to use self-service check-in, or self-service anything, they should be making it as easy as possible and as functionally easy as possible for anybody. (Int.13.2.M)

Furthermore, tech-savvy judges may be very sensitive to the SST design and easily become irritated when faced with a service failure:

I am very familiar with web design, so whenever I go to a site, and it is slow loading, or navigation is difficult, I quickly would leave that site and go to another site, a competitor's site...That is definitely frustrating, and that has happened to me quite a few times, so that would then mean I would not use that self-service vendor again, whoever they might be. In the US everybody does that online. Even the local store primarily always have an online presence, so, if I use it and have a bad experience, I won't then use the bricks-and-mortar store as well, you know. If I had a bad experience online. (Int.50.1.M)

The above excerpt also displays this participant’s position that he considers himself an expert in SST design. The judge clearly represents a polarised customer role, which may be negatively or positively charged depending on whether one is merely critical of the SST process and design, or constructively co-operative in providing suggestions and feedback. Indeed, participants in this research seem more inclined to undertake a negative judge role which highlights a lack of constructive co-operation between customers and service providers. Customers may also become critical of the SST provider when they deem themselves to be under obligation to use SSTs, that is when they are an enforced worker. This customer role is discussed in the following section.

6.3.5 Enforced Worker – ‘I am forced to do the work in exchange for service’

The fifth customer role, which is associated with lack of control and manipulation experiences, is that of the enforced worker. This role reflects the customer perception that they are obliged to provide inputs towards using SSTs due to a perceived lack of alternative; ‘it is a case of having to use them [SSTs]’ (Int.13.2.M). Therefore, this
customer role is termed enforced worker in contrast to the motivated worker who is enthusiastic and willing to engage in SST service. The enforced worker role in service failure and recovery situations is expressed in participant perceptions that they have had no choice but to engage in service recovery. These service recovery situations are characterised by severe customer drawbacks if they fail to take part in the service recovery.

The description of the enforced worker role is offered in the following interview excerpt from a participant’s account of air travel SST service. It may be observed that unlike the motivated worker role, the customer does not highlight any clear benefits which motivate SST usage in the enforced worker role. This participant suggests that the airline obliges customers to check-in online, ‘they require you as an airline to do it all online’:

Unfortunately, I am travelling with [airline X] today. Yes. Which are a very tough airline to work with, as a result we needed to print our boarding passes yesterday. That involved having to go to an internet cafe and that really added a lot of stress to the situation... But obviously there are, they require you as an airline to do it all online beforehand otherwise they charge you additionally. So, it makes sense to do as much as you can. (Int.5.1.M)

The participant in the above quotation describes in detail the inconvenience that SST usage has caused him; nevertheless, he must engage with the SST because the airline will otherwise impose a fine on him. The relationship of employee-employer is identifiable in this statement: the customer will be reprimanded if they do not comply with expected work standards. Therefore, similar to the motivated worker, the enforced worker identifies himself as being a ‘worker’ of the company. Hence, he has no choice, but ‘to do the aspects of the work’ if he wants to fly with this airline. The discussion continues with this participant highlighting that his perception of being forced to use the SST relates less to the fact that the airline requires it, and more to the fact that the SST is inefficient:
Interviewer: You said that they ‘require’ you to go online? How did that make you feel? Is that positive, or negative?

Participant: Hmm, it’s positive if it is straightforward and easy to use, but I find on the budget airlines often their websites crash when you are trying to do the aspects of the work. That just creates frustration really, so. (Int.5.1.M)

It becomes clear from the above quotation that this participant has not been facilitated to use SSTs efficiently because the technology is faulty.

One participant suggests that even though he obtained cheaper service when using an SST, the inputs that he had to provide were responsibilities forced on him: ‘They give a good discount if you book online. That's the only reason I would book online’ (Int.89.1.M). This interviewee’s enforced worker role becomes evident in his reflections that he does the work of an employee when booking online:

So, they [airline], they surcharge you really for doing their work. You are booking in, you are taking the place of a staff member, you are doing it all for them, and it takes you half an hour maybe of your time, by the time you put in all the information, serial numbers and passports. (Int.89.1.M)

Indeed, the above participant’s statements suggest that he has put in so much time and effort to complete the SST transaction that the cheaper price that he is getting is not even a sufficient reimbursement for this. Therefore, he performs all the ‘work’ and there are no clear beneficial outcomes for him.

The perception that fines and service premiums imposed by service providers determine the enforced worker role is further discussed in the following excerpt. The participant suggests that she is being forced to buy car insurance online by the service provider because she will otherwise have to pay additional charges:

The only issues that I do find are that in some areas like insurance, car insurance, renewing car insurance. If you don’t do it online, they charge you an extra 25 Euros. So what they have done is they are shutting down all the shops and they are letting go of all the people in those particular outlets... (Int.9.2.F)
The statement that actual company employees are being made redundant and she has to take up their role enhances the perception of being a ‘worker’ for the company. This participant continues to explain the perceptions of anxiety about providing credit card details online which contribute to her enforced worker role on that occasion:

I would have an issue sometimes giving my credit card over the internet to a degree. I know sites are safe and you look for your PayPal... I have my sister-in-law spent 1200 euro in [shop X] when she wasn’t there. Her credit card was used. My brother-in-law has had lots of money taken out of his credit card in the States where he wasn’t [there] at all. So I have a number of close, personal examples of peoples’ credit cards being used because they had used them over the internet. (Int.9.2.F)

The above quotation illustrates that this participant is uncomfortable with the company requirements to provide her credit card details online. There is a view expressed by participants in the enforced worker role that the service provider dominates over the service process design and customers are in a position only to accept the service provider decisions. The perception of service provider dominance in dictating service design is again offered by a participant in a discussion relating to self-service supermarket checkouts:

Participant: [self-service checkouts] just seems to be a cost cutting measure for no particular purpose.
Interviewer: OK, you mean, cost cutting measure, how would you translate that? Kind of, reflect on this a bit more.
Participant: Ahm, just like, you know, obviously, they are trying to make you do their work. And saving money, but probably not passing it on to you, but it is probably a cynical view but...
Interviewer: No, no, it is very interesting. And how do you feel about that whole phenomenon as you described it?
Participant: I guess it is inevitable but, yeah.
Interviewer: Do you try to avoid companies that make you feel like that by introducing their technology?
Participant: Ahh, not really, no. I don't think I have any particular brand loyalty at all, so... It's more like, whatever is there, I would use, as long as there is not too much difference in price. It isn't usually, so, yeah. (Int.54.1.M)

The excerpt above illustrates how this participant initiated a discussion of SSTs as a means for service providers to make the service process more convenient for them rather than the customer. The customer is forced to do the service provider ‘work’ and receive no reward for this. This participant suggests a reluctance to stand up to service
providers, remarking that the phenomenon ‘is inevitable’, and seems willing to go along with what the company requires of him even though he feels that the company is taking advantage of him. The sense of resignation to SST usage is further explained in the following interview excerpt with the suggestion that SSTs are part of modern life and one should get used to them:

*Interviewer: And can you think of any occasion when you felt as though you are being a bit pressured into using technology that you didn’t really want to use for a certain service?*

Participant: Hmm, I mean, there are those phone lines when you want to call somebody and you want to talk to somebody but you kept having to go press 0 and then 2, then 5, then 8, you know. I mean, those, I kind of, don’t like. I like to talk to a person. [silence] Really, I don’t feel, I mean, these days now it’s, you know, becoming more part of our life. You know, you’re just kind of, getting more and more used to it. (Int.44.1.M)

The enforced worker role is also evident during SST failure episodes in which the customer has had no choice but to participate in service recovery; particularly those customers who use SSTs for time savings and are unwilling to participate in time consuming service recovery, which may often be inefficient. An example of customer forced self-recovery is evident in the following excerpt where the participant feels that he has no choice but to repeat the online check-in process and hope it will fix itself:

If I am actually out of the country, and I am trying to get home, you don’t have a choice except to go back in and try to do it all over again. (Int.13.2.M)

The enforced worker service recovery role may be undertaken because if the service is not recovered, the customer may be fined for not completing the service transaction. For example:

*Interviewer: OK, so, would you have left the website then eventually and checked-in here at the desk if all failed?*

Participant: [Airline X] maybe, I am not sure, but I don’t think they charge you. But [Airline Y], no way, because it is 40 euros to do that. (Int.52.1.M)

Forced service recovery is deemed an ‘additional waste of time’ (Int.22.2.F) by a participant who has had to repeat an online booking process after the page crashed and she had not received a confirmation email. The enforced worker role adopted by one
customer when a website is continually crashing is clearly illustrated in the following interview excerpt:

*Interviewer: But while you are booking, I mean, if you are in the process of 'put your dates' and then blank. What do you do?*
*Participant: Again I will keep trying, probably after an hour or two.*
*Interviewer: Similar like you were saying about the one [booking website] which clocks out every half an hour. You don’t mind doing that?*
*Participant: No, because we have a limited option. If you want to catch some cheap flight, or good flight whatever again you will try until it is done. (Int.10.2.M)*

The participant in the above excerpt undertakes the enforced worker role because if he does not attempt service recovery, he must forgo the opportunity of purchasing a cheap flight. The observable difference between a motivated and enforced worker during SST failure incidents is in their perception of responsibility for the failure. Participants undertake a motivated worker role when they admit to having some responsibility for the failure or when they evaluated self-recovery as the most efficient way to obtain the necessary service. In contrast, enforced workers attribute all the blame for the failure to the company and consider their inputs towards service recovery as unfair, but mandatory. In addition to the motivated and enforced worker roles, SST customers may undertake an unskilled worker role which is discussed in the following section.

**6.3.6 Unskilled Worker – ‘I find it difficult to do the work in exchange for service benefits’**

The sixth customer role, associated with lack of control, supportiveness and social tension experiences, is labelled as that of the *unskilled worker* by the author. This role is identifiable in customer reflections about themselves in SST encounters as finding SST usage challenging. They identify a shortage of IT skills, SST operational knowledge and physical disabilities as preventing them from effective usage of the SST. For this reason, they may need to try harder or where possible look for assistance from other customers, or the service company, in providing the necessary customer inputs. During
SST failure incidents, unskilled workers do not have the necessary experience to engage in service recovery, or the service design has not allowed for it, so they seek assistance from employees or other customers.

Some customers may be hindered by their inability to operate the technology. This could be the result of their age or a disability. In the quotation below, a participant describes himself as an unskilled worker because he finds it ‘difficult’ to keep up with the instructions and complete the service:

It is a bit difficult for me. When I was going to school there was only Abacus. [smiling] So, it took me [airport announcement] the thing is that I just got my ticket. I do find it difficult. I don't find it difficult at the start of it and then they say: 'You've got to hurry up this now because you will be clocked out'. And if I don't go fast enough, I get timed out and I have to restart again. (Int.8.1.M)

Similarly, the quotation below is indicative of the physical barriers that technology may put in front of people with mild disabilities:

Because of my eyes and my age and because of the numbers and trying to press the right bloody button... I have never had good eye sight... Bloody phones, excuse me, I got another one in the summer and they really don’t make them for the colour contrast, older people. They don’t! (Int.9.2.F)

Other participants may resort to help from others to make up for their lack of technological skills. This illustrates a dimension of the unskilled worker role, namely, a help-seeker dimension. One participant books her overall trip online with the help of a ‘friend from work’: ‘I had to get somebody else to help me’ she comments, ‘because I am not able to do it’ (Int.10.1.F). Another participant is fascinated by technology, but indicates that she has to get her husband or children to book online for her, or check information. The excerpt below is an example of her unskilled worker SST usage role:

I am using the technology through someone else [laughter]. I mean, it's fantastic, you know, we'll say the little phones, the mobile phones now, there is everything on them. My daughter, if I ask her to check something, she is: 'Hang on a minute, Mum', and the next thing the answer is there. (Int.109.1.F)
Furthermore, unskilled workers may avail of the help of company employees when they are available, as illustrated by a participant in her account of checking-in via an airport kiosk:

- “It was at [X airport] itself. And one of the girls [employees] just came and, you know, did it all very quickly for me. But I am sure, if I’d had my glasses on and I just took my time, I’d have done it, you know. Because it is very easy, all you have to do is read it, they give you instructions. So, it’s very easy really. But the glasses were somewhere in the bag and I couldn’t, you know, hold everyone up looking for them. So, I thought, this nice young lady will help me. (Int.109.1.F)

This excerpt is indicative of the unskilled worker role that this participant undertakes due to her inability to read the instructions on the check-in kiosk. She also alludes to the tension related to this customer role when other customers are present at the service site (‘I couldn’t, you know, hold everyone up’). It is noticeable from the discussion of the unskilled worker so far that unlike all other roles, customers in this role may often refer to their age or age related disabilities. It appears that the perception of age may influence how customers approach their role during SST encounters.

The unskilled worker role is often evident during SST failure episodes. In some cases, the expertise to recover the failure is exclusive to the SST provider; therefore, the customer does not have the authority to participate in service recovery. For example, credit card breaches constitute one of these situations (for example, Int.6.2.M; Int.19.2.M). If a credit card is compromised, the recovery is initiated by the bank, which evokes a positive response in the customer without damaging their trust in online commerce. For example:

- “I’ve had one 50pound charge. Somebody used my credit card number to top-up a mobile phone, but that’s the only time and whether that was from an online transaction or from giving the credit card to someone, I don’t know. But it was refunded straight away, so. It doesn’t worry me too much [laughter]. (Int.106.1.M)

While this type of service recovery may guarantee a satisfied customer, this process is not present in most SST failures in which the customer has had to notify the service
provider. At times when customers are unsure of how to act during a service failure episode, they find themselves in an unskilled worker role and undertake no action. The following excerpt illustrates how a customer describes himself in an unskilled worker role when he is unable to fix the problem, and then he is physically unable to access the internet:

I tried buying a wedding present online last week through Amazon, I think. It let me select the present but then it would not let me pay for the complete transaction. I don’t know whether it is the internet connection, or their website, but I could not do it. Then I am going on holiday for a week and I have no internet access. So I haven’t been able to purchase a wedding present for someone. (Int.3.1.M)

The other action that unskilled workers may take when they are unsure of what to do during an SST failure episode is to contact a service employee for assistance. For example:

I don’t know what happened, maybe the internet went in my house, but just the screen went blank and it was just at the crucial moment where I had just put in my payment details, so I was kind of freaking out. I didn’t know whether it had gone through or not. So then I just waited a while and I didn’t get a confirmation email and then I obviously rang up the company just to double check, and they said that the payment hadn’t gone through. (Int.28.2.F)

A customer in an unskilled worker role may also seek assistance from fellow customers or family/friends during a service failure. For example, the excerpt below relates an incident regarding train ticketing. The participant has purchased a ticket online, but due to an oversight, does not have the necessary ticket number for printing out the ticket at the station (unskilled worker role). Therefore, this participant seeks the help of a family member in order to source the number:

You pay by credit card [online], so I just thought you had to put the credit card into the [ticket collection] machine [at the train station] and the ticket comes out [laughter]. It doesn’t happen like that. I had to ring my wife, but I had time, it was OK, and she got the number from the email. So that was just; that was my fault. (Int.18.2.M)

On other occasions, the customer may not have at hand the needed information to contact the service provider. One participant finds himself in this situation when his credit card gets stuck in an ATM while abroad:
I didn’t have my bank number at that time. I called my friend there and I asked for the number, the helpline number of bank [X], and he gave me that number and I called the bank and they asked me all the details. (Int.6.2.M)

The people who engage in helping the unskilled workers undertake a different role, that of an assistance provider, which is presented in the next section.

**6.3.7 Assistance Provider – ‘I am assisting fellow customers’**

The seventh customer role which emerges in this research is that of the *assistance provider*. This role has been extracted from customer reflections on helping customers during SST service or failure incidents by tutoring them or engaging with the SST on their behalf. Participants describe themselves as providing help enthusiastically or reluctantly to fellow customers; hence, the author chose two labels: enthusiastic assistance provider and reluctant assistance provider. These two aspects of the assistance provider customer role will be discussed separately because the former relates to supportiveness experiences and the latter to social tension experiences. The service failure incidents, during which customers undertake this role, were characterised by reduced employee availability at the service scene and the presence of other people.

The first aspect of the assistance provider role is the enthusiastic assistance provider. In this research, most participants appear to be positively disposed towards helping others as it is deemed a nice thing to do. For example, a participant expresses her view on helping a person at a ticketing kiosk as personally satisfying:

> I did a good deed for the day [laughter]. (Int.20.2.F).

As some participants indicate, SSTs are perceived as creating an age and technology divide in society. A young participant feels that SSTs may create discrimination in society, and as such she is inclined to help others in order to counteract discrimination and unfairness:
And, then maybe for other people who, you know, aren't as sure how to use that system then it's a little bit unfair, it's like two different levels of people who can use technology and people who can't use it... usually where there is automated machines, especially if someone was older, you know, there is often confusion, so you would, you'd help. (Int.63.1.F)

It becomes evident throughout the presentation of the assistance provider role that the perception of age has an implication for the customer SST role. The assistance provider role tends to be undertaken with less hesitation when directed towards an elderly person. For example:

*Interviewer: So you mentioned you have had positive experiences, so you would kind of class yourself as an 'embracer' of technology [SSTs]?*
*Participant: Obviously, I am [a] younger generation [age 18-24]. Maybe some people, maybe [the] older generation still like to go to the, you know [personal service], don't like to use it [SSTs] maybe so much. They are not so confident with it, I think, for me it's a good thing really.*

*Interviewer: Since you use technologies so often, would you have found yourself in a situation when you helped somebody with using it..?*
*Participant: Oh, yes. That's true. I have done that with online boarding passes for travelling and occasionally maybe in a shop as well if somebody needs help. You might just explain to them maybe if you have got some time. Say, yes I think...*

*Interviewer: And does that bother you, doing this?*
*Participant: No, I don't mind! I don't mind helping. I think it is quite nice just to help people if they need. It is a good experience. (Int.28.1.M)*

The above participant’s emphasis on the condition that ‘it is quite nice just to help people if they need’ suggests that the enthusiastic assistance provider role will only be undertaken if the other customer is clearly in need of help. This situation has been explored in relation to the supportiveness experience in Section 6.2.4. It was revealed that participants are wary when undertaking an assistance provider role to ensure that the other person was really in need of, and acceptant of, assistance from another person. Other participants undertake an enthusiastic assistance provider role when teaching other family members to improve their technology and SST usage skills. These participants are enthusiastic to introduce their family to the benefits of using technology, acting as tutors and mentors. For example, two illustrative excerpts are provided below:
Interviewer: So, how do you feel about helping?
Participant: It's good. You sort of want to help them [parents] because we have had a good experience with it, you want them to have that same experience. But, I think, the level of trust is different in the older generation. (Int. 36.1.F)

I am constantly helping my mum, educating her about online banking and all that... and just encouraging her to use her laptop. Helping her up to the world of technology, like Skype, we use that now that I am in Toronto, it's easy for us to stay in touch. But she had to be educated on that. (Int. 35.1.F)

However, participants are not always enthusiastic about undertaking an assistance provider role. An interesting second dimension which arises is that of a reluctant assistance provider. The customer in a reluctant assistance provider role will help fellow customers in terms of engaging with technology, but appears in some cases to be less than eager at having to do so:

They were struggling with the online check-in kiosk. I think, he was German, himself and his wife and two kids and I helped them check-in which is quite strange considering it's not a service passengers offer, I mean, you would have thought that there would be someone from the airline helping them. But there was no one around. (Int. 35.1.F)

This participant does not believe that teaching other customers how to use SSTs should be the responsibility of technology-adept customers. Regardless of her lack of approval of company practices, the above participant still assisted the unskilled workers because she empathised with their situation of being abroad and travelling with children. The reluctant assistance provider role is further evidenced in the following quotations suggesting that customers may engage in helping others because they are impeding their access to the service:

And I would like to say ideally that it is because I would genuinely like to help them, but I have to confess there will be an element of I want to get them out [of] the way, so I can get up and use the machine myself. (Int. 13.2.M).

I suppose, the most places you would find people help with self-service things is in [supermarket X], people trying to use the quick check-out thing and there is a queue and you are like: 'OK there I'll do it for you. Get out of my way'. (Int. 116.1.F)

The reluctant assistance provider role is described in the following excerpt from one participant’s reflections on helping fellow customers. This participant suggests that he is
reluctant to provide assistance because he is unsure if this will be received well by the other customer:

Ahm, [silence] it depends like, ahh, I mean, family is one thing, like my parents would not be great with computers, so I have to book things for them...But I find that if it is somebody I don't know, they are stressing out, you are nearly better off not trying to help them, because they are already highly sensitive... Well, like, you might gauge a bit... Some people if they need help, like, they will be throwing up eyes: 'Somebody come help me!' And other people they will just be [expletive] screaming and shouting and, like, you know, if you do go near them, they will be like: 'Get away!' (Int.38.1.M)

Furthermore, if the SST encounter may expose personal information, some customers may not be inclined to get involved in helping, but they do exercise an element of judgement in offering their help:

I would never go to somebody at a bank till, for example, ‘you got your pin number wrong’. I would never do it, but otherwise, yes. If you got a couple, for example, checking in at, like here [airport], at a check-in desk and are struggling, yes I would go and if, without being too invasive on their territory, certainly without a doubt, yes. (Int.74.1.M)

So far, this section has provided a wealth of customer perspectives on the roles that they undertake during SST encounters. Although there may be objective requirements of the customer SST role, the customer subjective perceptions of undertaking an SST production role are remarkably nuanced. The findings suggest that the differences in customer roles are associated with how customers perceive the service situation, and their assessment of aspects such as the SST process efficiency, customer effort, customer SST operational skills and other customers’ skills. It becomes evident that the perception of age forms a pre-conception of the customer SST role, wherein younger people are deemed to use SSTs effortlessly, while elderly people may be less experienced and may require assistance with SST usage. It appears that participants also harbour pre-conceptions about the type of person who is a typical SST user which may resound in how they interpret their customer roles during SST encounters. The perceived characteristics of the SST user have been further explored in the projective sentence technique component, and this is examined in the following section.
6.3.8 Customer Perceptions of SST Users

The analysis of the findings reveals a wealth of data pertaining to customer SST roles. These roles display a great diversity of perceptions relating to the SST customer, such as the perception of being independent, enforced, IT proficient and a helper. To further reflect on these roles, participants were invited to consider the perceptions of SST users in the projective technique sentences. The perceptions associated with users of SSTs became most evident in the responses to the following sentences:

Sentence 1: A person who used the smart phone to check-in is...

Sentence 7: Smart phones are for...

For example, Sentence 1 could be competed with a description of the person or with a description of their actions. Only 6 out of 32 participants chose to describe the functionality of the action. The remaining 26 responses provided adjectives relating to the person performing the action. Even the Sentence 7, which was expected to give rise to a list of the perceived functionalities of the smart phone, generated 17 responses, out of 32, relating to the image of the user. The perceptions of the contemporary SST user are markedly positive, described by participants as young, intelligent, active and technologically savvy. These responses are outlined in this section.

The people who use smart phones as the latest SST interface to check-in are described as: ‘modern and technologically savvy’ (Int.23.2.F), ‘smart’ (Int.6.2.M; Int.29.2.M), ‘clever’ (Int.11.2.M), ‘intelligent’ (Int.12.2.M; Int.17.2.F), ‘contemporary’ (Int.2.2.F; Int.22.2.F), ‘busy’ (Int.3.2.F), ‘young’ (Int.1.2.F), ‘business person’ (Int.32.2.F) and ‘resourceful’ (Int.28.2.F). The age range was specified as the following by a participant: ‘[silence] a person who used a smart phone to check-in is… probably in the age group
of maybe 18 to 30, 35.’ (Int.18.2.M). For example, the following are the responses of two participants in their 20s:

Your boarding pass, ehm, I probably wouldn’t do it. So, he is a risk taker. (Int.30.2.F)

Is a business person. (Int.32.2.F)

Even though the above participants are young, it is obvious that they do not identify with the self check-in user image of a business person. The author has cross-tabulated the responses with the available demographic characteristics for each participant and concludes that the adjectives provided are consistent amongst participants regardless of their age, gender or other demographic characteristics. The emerging image of the contemporary SST check-in user appears as a young, tech-savvy, intelligent, business person. It may be concluded that the SST user image in society is very positive and socially desirable. Even the answers which do not directly provide user image adjectives nevertheless build an image perception. For example, the SST user who has checked-in via their mobile phone is viewed as operating at an advantage in that they are ‘using the most up-to-date technology’ (Int.25.2.M), ‘using a very useful and beneficial technology’ (Int.8.2.M) and ‘probably going to save time’ (Int.14.2.F).

At the time of conducting data collection, from the few responses relating to the smart phone uses (Sentence 7), it is evident that using smart phone SST transactional functions is not very popular. The responses suggest a view of smart phones as functional devices which may ‘make life easier’ (Int.30.2.F) or which are capable of ‘improving your life’ (Int.11.2.M). The functionalities of the smart phone described by the participants include ‘internet’ (Int.3.2.F; Int.15.2.F and Int.28.2.F), ‘information’ (Int.23.2.F), ‘email’ (Int.13.2.M) and ‘playing games’ (Int.6.2.M). It is evident that with the exception of information searches and communication, there are no explicitly
mentioned transactional SST usages of the smart phone, although some participants display awareness of these functions. For example:

Ehm, smart phones are for, what I would use them for is like gathering information...Checking times and stuff, I haven’t really, like, got to the point of like using them to pay for stuff and, although I have seen like new stuff where they’re trying to get your smart phone to be like a credit card. (Int.29.2.M)

Another participant’s list of smart phone uses again did not include much SST functions:

Everything! [laughter] Literally in a single day, email, Facebook, music, I finished my audio book now, so I have another one. So I’ve listened to an audio book. Ahm, telephone calls interestingly, checking the time, I have my diary on it. (Int.16.2.M)

Therefore, it appears that smart phone usage for information and entertainment has higher adoption amongst participants than smart phone SST options where the customer delivers self-service transactions. In some of the responses to Sentence 7, it also becomes evident that smart phone users are described slightly differently to users who deliver self-service via their smart phone. Participants describe the smart phone user in a similar fashion to Sentence 1, but in certain instances there is evidence that this image may be blurring. Interestingly, in a lot of the answers to this sentence the expression ‘smart people’ was promptly provided (for example, Int.8.2.M) accompanied by laughter in some instances (for example, Int.5.2.F; Int.7.2.F). It may be suggested that the acronym ‘smart’ provokes an association and analogy with ‘smart’ as an adjective to describe the user; a smart phone is for a smart person. The smart phone users are again described as ‘people on the go’ (Int.20.2.F and Int.24.2.F), ‘busy people’ (Int.21.2.M), or ‘technologically up-to-date’ (Int.25.2.M). The smart phone user is also characterised as being young and tech-savvy as suggested in the following response:

Smart phones are for busy people I would say, or for the super young generation who just can’t, who breathe in and out through smart phones. (Int.7.2.F)
Therefore, the smart phone user is perceived as a contemporary, technologically proficient and active person. However, these perceptions are not universally felt in the responses. For example:

Everybody (Int.31.2.M)

The smart phones are for anybody really. Anybody would find their way, you know, it’s an option for people. (Int.26.2.F)

For everyone. (Int.22.2.F)

For everybody. (Int.17.2.F)

The above responses suggest that smart phone usage may not be considered the same as delivering self-service transactions via a smart phone. The response that smart phones are for everyone is provided by six participants with various socio-demographic characteristics who range from 21 to 70 years of age. This observation made by the author further confirms that smart phone usage has started to become widespread. It is suggested, however, that the high price of the handset presents an obstacle to increased smart phone usage:

Ahm, smart phones are for everybody that can afford to have one [laughter]. (Int.18.2.M)

These responses reinforce the findings from Sentence 1 whereby smart phone check-in is viewed as an option for a defined user profile. Indeed, participants perceive that anyone may own a smart phone, but the usage of SST services via a smart phone is attributed mostly to intelligent, young, tech-savvy, business people. Therefore, the SST user is perceived positively and differently from a technologically advanced person in general.

The SST user perceptions may affect SST customer roles in two ways. Firstly, SST usage may be associated with social benefits, such as the generation of a positive social image. Where the customer identifies with the SST user profile, they may perceive their
SST production roles as less strenuous and engage them with more enthusiasm, such as the convenience seeker, motivated worker and technological sweeper. Secondly, where the customer does not identify with the SST user perception, this may contribute towards unskilled and enforced worker roles.

6.4 Conclusion

This chapter provides a discussion of the findings relating to the second and third research objectives of this research, namely, to explore the customer experience of SSTs in the tourism sector and to examine the roles that customers undertake in SST encounters in the tourism sector. Participants describe a number of rather different, and at times opposing, experiences of SSTs. The findings suggest that there are six distinctive customer SST experiences: accomplishment, lack of control, manipulation, supportiveness, concern about discrimination and social tension. The discussion of the experiences which arise during SST encounters reveals that customers hold certain perceptions in relation to SSTs which determine their experience of them. Some of the significant perceptions which determine customer SST experiences include perceptions of enhanced service benefits, customer skills and effort to operate the SST, perceptions that with SST implementation, some customers are discriminated against, and perceptions that the SST provider is trying to take advantage of customers. These perceptions become evident when participants elaborate on SST usage situations, but also SST avoidance situations and social interactions during the SST encounter.

The experience of accomplishment is a key value-creating SST experience. The essence of this experience is in the customer perception that companies have handed them the power to actualise more benefits from the service by using SSTs which is reminiscent of the concept of empowerment (Pires et al., 2006). The determinants of this experience
include a positive evaluation of the benefits from SST usage and a positive perception of the level of customer inputs to obtain the service. This type of customer SST experience is most closely aligned with the research approaches to customer behaviour in SST research (see for example, Etgar, 2008; Anitsal and Schumann, 2007; Meuter et al., 2005; Meuter et al., 2000), whereby the perceived benefits from SST usage are weighted against the customer inputs (Etgar, 2008; Anitsal and Schumann, 2007).

In addition to evaluating customer inputs against service benefits, SST experiences may also be determined by the perceptions of other stakeholders in the SST encounter, such as the service provider, employees, other customers and society. In contrast to the accomplishment experience, SST customers identify value-destroying experiences of lack of control and manipulation. The lack of control experience is formed as a result of a negative perception of the customer skills to operate the SST or a negative evaluation of the SST interface quality. The manipulation experience is brought about by a negative perception of the integrity and benevolence of the service provider. The perceptions underlining these value-destroying experiences are in line with the S-D Logic proposition that both customers and service providers integrate resources in co-creating value-in-experience (Vargo and Lusch, 2008). Based on this proposition, Barutti and Gilsanz (2013) provide empirical evidence that customer evaluations of the quality of service provider resources and their own resources form the perception of value. The findings from this research provide evidence of the particular perceptions which underline the specific SST value-in-experiences.

The co-creation of value in SST experiences in this research occurs in a social context which has been the focus of very limited research (see for example, Gelbrich and Sattler, 2014; Kinard et al., 2009). In the context of self-checkouts, Gelbrich and Sattler
(2014) and Kinard et al. (2009) find that the presence of other customers may increase levels of anxiety when operating the technology. The present study offers additional social aspects relating to SST contexts. The identified social experiences include the value-creating supportiveness experience and the value-destroying social tension and concern about discrimination experiences.

Participants in this study discuss the behaviour of other customers during SST encounters and how it has affected their own experience in a positive or negative way. The social experiences might be value-creating (such as the supportiveness experience), or value-destroying (giving rise to social tension and concern about discrimination). It appears that there is certainly a social element embedded in SST encounters as customers interact with fellow customers, friends, strangers, acquaintances and company employees. Positive social interactions during SST encounters are characterised by an experience of belonging to a community where customers patiently assist and empower each other to use SSTs. There is a sensed culture of helpfulness and support amongst SST users which is characterised with feelings of compassion. Helping and being helped with SST usage may be associated with social value in the SST experience.

The social experience is also characterised by perceptions such as discrimination, societal wellbeing and the social image of the SST user and non-user. The ability to use SSTs is perceived as social capital, adding to the image of a person in society. In contrast, the lack of skills in using SSTs is perceived as negative social capital and this adds to the technology-related anxiety of customers who find SST usage challenging. The projective sentence technique component clearly reveals that there is an underlying imagery and a set of preconceptions determining the social value of SST service.
encounters. For example, the perception that elderly people might appreciate assistance with SST usage is interpreted by some participants as an opportunity to display their social engagement and perform a ‘good deed’. If the person in need of assistance does not appear to the participant as one in need of help, this may evoke a negative emotional reaction of impatience within the SST user rather than feelings of compassion. These findings confirm the suggestion by Etgar (2008) and Payne et al. (2008) that there are links between customer co-creation and Consumer Culture Theory (Arnould and Thompson, 2005). This study uncovers that cultural and social values of SST users have implications on how they would determine the SST experience.

In addition to perceptions of the quality of customer and service provider inputs, SST experiences are underlined with perceptions about the fairness of the encounter. These fairness perceptions provide a further understanding of the six SST experiences. Customer fairness perceptions have not received in-depth understanding in SST research, but have been suggested as an important aspect in evaluating customer SST usage intentions (Anitsal and Schumann, 2007) and satisfaction (Dabholkar and Spaid, 2012). There are three aspects of fairness identified in the literature, namely, procedural, distributive and interactional justice and the findings from the present study contribute to our understanding of these concepts in an SST context. The fairness aspect of procedural justice (Chiu et al., 2009; Seiders and Berry, 1998) is evident in customer definitions of their responsibilities. Customers accept the responsibilities of being careful and following the SST operational instructions, learning and accepting change and protecting their own security during SST encounters. Customers also consider it fair to accept some level of SST failure and co-operate with the service provider towards a better service. In terms of expectations for remuneration for customer effort as partial employees (Lawlor, 2010), the findings suggest that customers do not expect direct
reimbursements for their service inputs exceeding the benefits for the customer from SST usage, such as price and time savings, and unlimited access to the service. Customers are also willing to take it upon themselves to ensure the quality of the service process by double-checking their entries and protecting their privacy and security when using SSTs.

The fairness element of interactional justice is evident in the customer view of what constitutes respectable and honest treatment of customers and the service company (Chiu et al., 2009). Customers perceive it is a fair customer responsibility to be honest about the information they fill-in while using SSTs and not to try and take advantage of the company. Equally, customers believe it is unfair to cause damage to SSTs or to damage the company image. Furthermore, interactional justice is represented in the customer perception not only of their treatment in comparison to other customers of the service (Carr, 2007; Seiders and Berry, 1998), but also in comparison to those using other service channels. This means that in an SST context, customers form their fairness perceptions by comparing the dimensions of justice (process, outcome and interactional justice) to the analogous ones for other service channels.

Customers consider it unfair to be obliged to use a badly-designed and inefficient SST, to be provided with unclear instruction and to be abandoned by the company when they experience a service failure. Furthermore, customers do not find it fair that they may be punished for mistakes; they expected some level of flexibility on the part of the service provider. Alternatively, customers perceive it as unfair if the company provides them with misleading and unclear information on the SST interface in order to take advantage of customer oversight. Customers may perceive it as unfair if companies are overly intrusive on their privacy or do not treat their personal data mindfully. And lastly,
customers are often aware that the company realises operational cost savings when they use SSTs, but they believe it is a matter of respect for the customer that the company does not take advantage by charging for SST usage.

The customer perceptions of fairness again emerge as the essence for the concern about discrimination experience expressed by participants. SSTs are discussed in terms of creating unfair discrimination in society and impacting the labour market. Fairness does not always relate directly to the SST user’s experience, but also that of other customers. This is in line with justice theory which suggests that customers form their fairness perception by comparing how they are treated in relation to other customers (Carr, 2007; Seiders and Berry, 1998). If customers perceive that they are treated less or more favourably than others, they may take action to bring back the balance (Carr, 2007). In an SST context, experienced users believe it is fair to help less proficient or disadvantaged users who may be discriminated by the introduction of SSTs. Furthermore, this responsibility needs to be shared with the service provider who should not completely abandon such users but make efforts to integrate them. The introduction of SSTs may bring cost savings to customers and service providers, but at the expense of employees who need to be re-qualified or made redundant. SST users feel strongly for the employees and expect service companies to contribute towards the alleviation of the unemployment threat.

In the discussion of SST experiences, it emerges that customers undertake a variety of SST roles, including convenience seeker, motivated worker, technological sweeper, judge, enforced worker, unskilled worker and assistance provider. The customer roles vary depending on the customer perceptions of their activities and the SST service process. For example, in a convenience seeker role, the SST customer focuses on the
efficiency and effortless delivery of the service. Customers who perceive their engagement with SSTs as ‘work’, which they need to do in return for service benefits, are identified as adopting a motivated worker role. These differences in customer perceptions of their activities during SST encounters demonstrate the nuanced nature of customer engagement with SSTs in producing and consuming the service offering.

In a convenience seeker role, the customer is described as realising maximum convenience and service efficiency through SST usage. Their actions include the provision of minimum inputs which would not outweigh the benefits achieved. During SST failure episodes, the customer in a convenience seeker role engages in service recovery only if it is not burdensome. The customer perceives themselves as being empowered to engage with their preferred service channel in a way which suits them. The customer has equal standing with the service provider, as such they co-create the service experience (Grönroos and Gummerus, 2014). Therefore, the convenience seeker role is aligned with the perspective that customers co-create service value with the provider (Vargo and Lusch, 2008). The customer perspective in this role suggests that customers create the service with the help of the service provider offerings. Hence, the ‘co-creator’ perspective on the customer service role may reflect the customer perception of their role as a convenience seeker.

In the motivated worker role, the customer regards SST usage similarly to co-operative ‘work’ that they have to do in order to obtain the desired benefits. The co-operative outlook is also evident during SST failure episodes during which the customer attempts to self-recover the service. This customer perspective suggests that the customer is a willing worker during the SST encounter, but the co-creation of the service is weighted towards the service provider, that is, the service provider specifies the service
parameters and the required customer inputs. The motivated worker role is most closely aligned with the ‘partial employee’ perspective of the service customer (Mills and Morris, 1986). This perspective recognises the leading role of the service provider and the subordinate role of the customer as a ‘partial employee’ who gets involved in service delivery by the company (Graf, 2007).

The technological sweeper role reflects the customer perception of being a ‘sweeper’ between a multitude of SSTs during a service encounter, thus maximising service benefits. Participants describe themselves as multi-channel SST users, thus acting like a ‘sweeper’ who alternates between various SST interfaces and modes. During service failures, technological sweepers swiftly move to another company SST channel and obtain the service without delay. This role represents an empowered customer who creates the service with the help of service company offerings. This is similar to the convenience seeker role with the difference that this customer does not stay in one SST channel, but rather surfs between service technologies to create the service experience. Therefore, the ‘creator’ perspective on the customer role (Grönroos and Gummerus, 2014) is also mirrored by the customer role of a technological sweeper in this research.

Customers may assume the role of a judge who perceives their role as actively assessing the SSTs. In this role, customers reflect on SST service usage as might a judge who investigates the service and provides evaluations. The creation of the experience takes place on the customer initiative, in the customer sphere, and there is often no direct interaction with the service provider. Hence, the customer perspective on their role as a judge again mirrors the ‘co-creator’ perspective of the customer role in service (Grönroos and Gummerus, 2014), similarly to the convenience seeker and technological sweeper. Therefore, the theoretical perspective of the customer as a ‘co-creator’ of the
service experience (Heinonen et al., 2010) from a subjective customer perspective displays nuances.

The difference between the motivated worker and the enforced worker constitutes their willingness to participate in the SST encounter. In the role of an enforced worker, the customer perceives that they are forcefully interacting with the SST to suit the service provider, but it essentially inconveniences the customer. Customers in an enforced worker role still co-operate during service delivery, similar to the motivated worker, but with a perception that the SST is not beneficial to them. Hence, they do not display a ‘partial employee’ perspective on their SST role. During service failure incidents, a customer in an enforced worker role might unwillingly engage in self-recovery. In essence, the customer perceives themselves as being obliged by the service provider to use SSTs. This perspective is the opposite to the customer perspective of being a co-creator during the SST encounter. The co-creator perspective suggests a balanced power relationship between the customer and the service provider in co-creating the service experience together. Therefore, the enforced worker role is not reflected in the perspectives on the customer roles conceptualised in current literature.

The customers who undertake an unskilled worker role generally possess the same views as the motivated worker, but they perceive that they lack experience and skills to perform their role successfully. Thus, in this role, customers interact with the SST with difficulty, or may need to resort to the assistance of other customers or employees. During a service failure episode, an unskilled worker may remain passive or seek assistance because they are not in a position to self-recover the service. So they may seek the assistance of service employees or fellow customers. The unskilled worker role displays a customer-provider power relationship wherein the provider specifies the
service parameters and customer input requirements, making them a partial employee (Mills and Morris, 1986). As such, while the customer might be unable to fulfil the requirements set out by the service provider, they nevertheless put in the effort in order to complete the transaction and avail of the service benefits. When seeking help from an employee or other social party, the customer co-creates the service experience with them. Therefore, in this role, the customer may be both a partial employee and a co-creator of the experience.

As identified in the unskilled worker role, some customers may assist others with SST tasks. Customers may then perceive that they act in the role of an assistance provider to fellow customers. Participants describe themselves as providing help enthusiastically or reluctantly to fellow customers; hence, the author proposes the binary of an enthusiastic assistance provider and a reluctant assistance provider. The assistance provider role is self-initiated and involves a social interaction between customers. Therefore, this role reflects the co-creator aspect of customer service roles (customer-customer) (Lusch et al., 2010).

Emergent connections have been discussed between customer SST motivations, experiences and roles which provide an understanding of how customer usage of SSTs may affect their experience of the service. The different SST customer experiences have emerged as being associated with certain motivations and SST customer roles. In the context of accomplishment experiences, participants discuss motivations relating to utilitarian, hedonic and ethical value for the customer (such as convenience, control, lower price, enjoyment and eco-friendliness), alongside the SST roles of convenience seeker, technological sweeper, judge (positive) and motivated worker. When customers are unable to realise the service benefits relating to the utilitarian value, they undertake
an unskilled worker or judge role (negative) leading to lack of control experiences. The forced usage motivation is associated with the enforced worker and judge role (negative), leading to a manipulation experience. The supportiveness experience relates to the roles of unskilled worker (help-seeker) and enthusiastic assistance provider together with the empathy motivation. The value-destroying experiences of concern about discrimination and social tension are discussed in conjunction with the judge (negative) and reluctant assistance provider roles, and the empathy and forced usage motivations.

The connections uncovered between motivations and customer roles and the various SST experiences suggest that customers play a pivotal role in creating the SST experience; the customer motivations and roles during the SST encounter determine the nature of the service experience. The following chapter explores the relationship between the findings of this research and the literature (reviewed in Chapters Two and Three), and presents the author’s overall conclusions and recommendations arising from this research.
Chapter 7 Conclusions and Recommendations

7.1 Introduction

The starting point for this thesis was the increasing infusion of SSTs in services and tourism, and their impact on the customer experience (Accenture, 2015; Neuhofer et al., 2014). The ever-increasing role of technology in services not only affects the customer experience, but also places the customer in an active production role when using SSTs (Castro et al., 2010). However, whilst the role of customers in SST delivery has been acknowledged, the process of service production by customers requires in-depth understanding (see for example, Heidenreich and Handrich, 2015; Hilton and Hughes, 2013; Eastlick et al., 2012). The literature review in Chapter Three illustrates that much of the SST research focuses on determining why customers may reach a decision to use SSTs, but not how customers use and experience SSTs. Hilton and Hughes (2013) suggest that, on this basis, current SST research is conceptually limited and requires further exploration of the customer perspective on producing (co-production) and consuming (co-creation) SST services. The aim of the present research has been to address this gap through an exploration of the customer perspective on their usage and experiences of SSTs.

This interpretivist study employed a two-stage qualitative methodology. The portfolio of qualitative methods in the two-stage research design included short qualitative interviews, in-depth interviews and a projective technique, namely sentence completion technique. The research findings were discussed in Chapters Five and Six under the
three research objectives and were supported by excerpts from the interviews. This chapter examines the significance of the findings under each of the three research objectives with a view to illustrating where and how this study contributes to SST knowledge and practice. The author then presents a conceptual model of SST usage which is an outcome from, and a contribution of, this research. The overarching contribution of this study is the application of the S-D Logic perspective to the exploration of the customer perspective on their usage and experiences of SSTs. The analysis of the findings suggests that the customer perspective is not adequately conceptualised by static, SST adoption factor models. A dynamic value network view is justified where the user is a central co-producer, but not always a consumer of the service they produce. From this theoretical perspective, the complexities of, and inter-connections between user motivations, experiences and roles are revealed. The chapter concludes with recommendations for further academic research relating to customer SST usage and experiences, as well as implications for managerial practice.

7.2 Research Objective One: To investigate customers’ motivations for using SSTs in the tourism sector

The findings from this research provide a detailed insight into the customer perspective on their various motivations to use SSTs. Seven SST usage motivations were provided by the participants in this research: convenience, forced usage, control, enjoyment, access to lower price, eco-friendliness and empathy. The motivations of convenience, control, enjoyment and access to lower price reflect the view in the literature that SSTs functionally benefit the customer (Cetto et al., 2015; Collier and Barnes, 2015). The findings from this study introduce the forced usage, eco-friendliness and empathy motivations which contradict the established utilitarian view of SSTs in the literature.
(see for example, Curran and Meuter, 2007; Meuter et al., 2005). These findings explicate the diverse and even contradictory motivations at play, from use of SSTs to suit the customer (convenience motivation) to use of SSTs to suit the service provider (forced usage motivation). Furthermore, customers may use SSTs because they personally benefit them (in terms of convenience, access to lower price, control and enjoyment) but may additionally use SSTs for the benefit of other customers and the environment (in terms of empathy and eco-friendliness).

The literature has identified motivations for use and the accompanying gratifications sought by the customer, such as convenience (Collier and Kimes, 2013; Dabholkar et al., 2003), 24/7 access to the service (Meuter et al., 2000), control (Meuter et al., 2003), time and money savings (Meuter et al., 2000) and enjoyment/fun (Cetto et al., 2015; Collier and Barnes, 2015; Dabholkar et al., 2003). In line with the literature, the motivations of convenience, control and access to lower price have emerged in this study as leading service outcomes which help customers achieve more efficiency in their life by managing a budget, and coping better with busy personal, family and work schedules. Enjoyment of the SST interaction was another service outcome which satisfied customer goals of seeking pleasure, novelty and entertainment. All the above motivations may be explained with the means-end chain theory (Gutman, 1982) which suggests that customers seek service outcomes which provide them with utilitarian and hedonic value from SST usage (Cetto et al., 2015).

Control in the SST literature is associated with better customisation of the service (Liljander et al., 2006; Dabholkar et al., 2003), but the present study suggests that customers will also use SSTs to research and pre-book tourism services in order to avoid disappointment at the destination. This dimension of the control motivation is
termed predictability by the author. Predictability means that the customer does not only seek to control the service parameters, but also to pre-empt and influence the service outcome. This aspect of control reveals a customer willingness to get involved in service delivery beyond simply providing service specifications.

SST motivation has been researched in the context of choice available to the customer, whereby the customer makes a conscious decision to choose the SST over another (personal) service delivery option (see for example, Eastlick et al., 2012; Meuter et al., 2005). The findings from the present study suggest that customers may use SSTs even if they do not perceive them as better than alternative service channels. In contrast to the convenience motivation, the forced usage motivation suggests that customers do not use SSTs because it suits them, but because it suits the service provider. With a forced usage motivation, customers use SSTs in order to obtain the services in a way chosen by the company. For example, when there is no other way to buy a service or product, but via an SST (such as a website or kiosk), the customer uses the SST because they would not complete the purchase otherwise. The forced usage motivation represents a key finding because it contradicts the established view in the literature that customers adopt SSTs because they perceive clear benefits for them from their usage (Schumann et al., 2007; Meuter et al., 2005).

Essentially, the forced usage motivation reflects a customer perception that they have to use an SST because it is a requirement by the service provider. It may be a case that the service provider has provided an SST as the sole channel to obtain the desired service. Alternatively, there may be other service channel options available to the customer, but they may not be perceived as an option for obtaining the service due to incurring higher costs for using these channels. Therefore, the forced usage motivation displays two
dimensions: no other option was available, and no better option was provided to the customer. Furthermore, some participants suggested that if they do not abide by the service provider instructions to adopt SSTs, they may appear technologically challenged or ‘old-fashioned’. This perception was explored further in the projective sentences technique component in Stage Two of the research. The findings reveal that the social image of an SST user was more desirable than the one of an SST non-user; hence, customers may unwillingly use SSTs in order to avoid assuming a negative social image. Customers are forced, therefore, to use SSTs not only by the service provider, but also by social pre-conceptions of the image of SST non-users.

Participants in this research were often resigned to using SSTs despite their unwillingness to do so. In some service situations, SSTs are perceived by some customers as a hurdle that they have to overcome in order to obtain the service they want. This contradicts the common marketing logic of responding to, and satisfying, customer needs and wants (see for example, Grönroos and Gummerus, 2014; Solomon et al., 2013). Therefore, according to this study, some organisations are viewed as prioritising their requirements/constraints in an SST situation over those of the customer and are thus challenging the traditional customer-centricity of the marketing paradigm.

The discussion of the forced usage motivation, so far, raises the question as to why customers use SSTs when they perceive that they will derive no benefits from doing so. Indeed, the findings suggest that although customers may be reluctant to use SSTs, they feel they have to, in order to gain access to a desired service. For example, a customer may be unwilling to use a certain hotel’s website to book a room, but they may do so because this will provide them with a stay in the best location. A customer may unwillingly use a self-service parking meter, but their car will be parked in a safe and
close location. These examples illustrate that customers may unwillingly oblige the service provider with SST usage in order to obtain a service from them. Hence, the forced usage motivation displays a slightly different dynamic to that of the other SST usage motivations as customers use SSTs not because they find them beneficial in their own right, but because they will lose out on an otherwise beneficial service.

Therefore, the forced usage motivation suggests that customers avoid negative affect by engaging in SST usage which shows a fit with expectancy-valence theory (Vroom, 1964). This is similar to the situation of a child obliging their parents by completing their homework, because otherwise they will be punished. The homework activity may not be perceived as beneficial by the child, but it is instrumental in avoiding unpleasant affect (punishment), and possibly getting a treat. SST research often employs TAM in the study of customer decision-making (see for example, Eastlick et al., 2013; Patsiotis et al., 2013), a motivational model that suggests customers will form intentions to use an SST because it is useful and easy to use (Davis et al., 1989). The present study found that customers may use SSTs even if they are not perceived as useful or easy to use. Therefore, SST usage behaviours may not be explained entirely by positive attitudes and the generation of benefits for the customer. Furthermore, the concept of customer willingness to co-create has been suggested as a good predictor of customer intentions to try an SST (Heidenreich and Handrich, 2015), but this research has found evidence to the contrary in the context of SST usage with forced usage motivation.

In addition to the forced usage motivation, this research has uncovered other SST usage motivations which suggest that customers do not use SSTs only for their own benefit. Customers are not only motivated by benefits such as convenience, control, access to lower price and enjoyment, but they also use SSTs to help fellow customers (empathy
motivation) and save the planet (eco-friendliness motivation). The empathy and eco-friendliness motivations were expressed as a psychological contentment of reaching personal ethical values, such as betterment of humankind and saving the environment. The findings suggest that users derive an internal satisfaction at ‘having done a good deed for the day’ (Int.20.2.F). Therefore, these motivations may be explained with the means-end chain theory similarly to the SST usage motivations which functionally benefit the customer.

The empathy and eco-friendliness motivations are a conceptually significant aspect of customer SST usage motivation. Being eco-friendly and kind to others represent two possible aspects of being a responsible, ethical citizen which customers may potentially achieve through SST usage. Therefore, these motivations relate to the ethical value which may accrue from SST usage, in addition to the hedonic and utilitarian value as already identified. The ethical value from SST usage represents a completely new aspect to SSTs, which further highlights the contribution of the present research.

In terms of possible demotivating factors regarding SST usage, technology anxiety was offered by participants as such a factor. Technology anxiety has been treated as a personality trait in the SST literature (see for example, Lee et al., 2010). The interpretation of the participant responses to the projective sentences component of this research, revealed that technology anxiety in an SST context may not be just a personality trait, but may also be an outcome from poor SST process design features. The SST may not provide all the customisation options required by the customer, or a clear indication that the transaction was completed successfully. Furthermore, technology anxiety may be explained by fear of financial losses or fear of extra customer responsibility if the SST process fails. These findings again suggest that SSTs
may suffer from weak process design issues thus contributing to customer anxiety even if the customer is technologically adept. This may explain why the technology readiness of customers is not always an accurate predictor of SST adoption (see for example, Liljander et al., 2006). The described uncertainty about the outcome is clearly connected to insufficient information provided by the SST process. Furthermore, anxiety may stem from customers being assigned responsibilities in the SST delivery process with which they were not comfortable. The customer perspective on their responsibilities is discussed further in Section 7.3.

To summarise, the findings relating to the first research objective reveal new customer motivations which do not represent direct utilitarian or hedonic value for the customer from engaging in SST usage. Customers may use SSTs to suit service providers, termed forced usage motivation, which is in contrast to the convenience motivation. Hence, customers may use SSTs even if they perceive that SSTs benefit the service provider, and not the customer. Furthermore, customers may use SSTs with ethical motivations such as empathy and eco-friendliness whereby SST usage may assist other customers and benefit the environment. The exploration of the customer motivations was the first objective of this research because the customer motivations determine how customers will use SSTs and evaluate their experience of SST usage (Etgar, 2008). Indeed, the findings from this research suggest that SST usage motivations are an important underlying determinant of customer SST experiences. The range of customer experiences with SSTs is discussed in the next section.
7.3 Research Objective Two: To explore the customer experience of SSTs in the tourism sector

In addressing its second research objective, this study explored how customers interpret their SST experiences. Experience in this study was defined as the overall customer state, encompassing the customer’s emotional, cognitive and physical condition associated with SST usage (Payne et al., 2008). The interest in customer SST experiences was justified by the S-D Logic proposition that value in service is phenomenologically determined by the beneficiary (Vargo and Lusch, 2004). The findings from the present study suggest that SST experiences may create value for the customer, but they may also destroy value as suggested by Hilton et al. (2013). This is in line with the S-D Logic concept of value-in-experience which highlights the positive connection between service experiences and value (Heinonen et al., 2010; Helkkula and Kelleher, 2010). Through the lens of the value-in-experience concept, the present study identifies six diverse customer SST experiences and classifies them under the categories of value-creating and value-destroying. The experiences of accomplishment and supportiveness are deemed to be value-creating, while the experiences of lack of control, manipulation, concern about discrimination and social tension are deemed to be value-destroying.

The findings from the present study suggest that customer value-in-experience is the result of customer interactions with other customers, service employees and SSTs. Hence, the concept of value-in-experience may have two dimensions in an SST context, customer-SST interactions and customer-customer/customer-employee social interactions. The latter dimension emphasises the social nature of SST encounters, despite the suggestion in the literature that SST service reduces human interaction (see for example, Zhu et al., 2013; Bitner et al., 2000). The findings from the present study
suggest that social interactions during SST encounters are diverse and their evaluation by customers is complex, in contrast to previous research which has studied social presence (other customers) during such encounters only as a negative factor (see for example, Collier et al., 2014; Gelbrich and Sattler, 2014; Kinard et al., 2009), and employee assistance as a positive factor (see for example, Reinders et al., 2008).

The first SST experience of accomplishment was described by participants in terms of positive emotional outcomes such as contentment, achievement and independence, which suggest it is a value-creating experience. SSTs were perceived as beneficial and easy to use. The second SST experience, namely the supportiveness experience, illustrates how customers may create value out of negative SST service situations. In essence, customers who are experiencing SST difficulties are placed at the mercy of other SST users who may choose to assist them with SST usage. On occasion, there may be employees available to assist customers with SST usage. This situation may result in a value-creating experience for both the person assisting and being assisted, because of the pleasant social exchange.

The third SST experience is the perceived lack of control experience. In contrast to the value-creating accomplishment experience, the lack of control experience is a value-destroying experience, displaying a degree of helplessness and lack of freedom. This experience reflects a customer-SST interaction where the customer is required to use SSTs. Although the customer may obtain benefits from SST usage, value is destroyed because the customer may feel anxiety during SST usage. The fourth SST experience of manipulation is described as a value-destroying experience, characterised by feelings of anger, annoyance and anxiety towards the service provider. This experience represents a
negative perception of the customer-SST interaction where the service provider is perceived as an unfair co-production partner.

The fifth SST experience of concern about discrimination is a value-destroying SST experience. This was evident where participants expressed negative feelings regarding accessibility of SSTs. This experience is not necessarily connected to the customer’s own direct SST usage, but it affects their experience of the SST encounter. Participants expressed a concern that SSTs may create discrimination of service customers because SSTs may not be accessible for all customers. The sixth customer experience of social tension is a value-destroying experience of annoyance and impatience. Inexperienced SST users suggested that they were conscious of the presence of others, while experienced users were annoyed at having their access to the SST delayed. Although the experienced users may help the inexperienced ones, both sides may resent having to do this.

The findings from the present study suggest that in an SST context, determinants of the value-in-experience are the customer perceptions of their interactions with the stakeholders in the SST value network (including customers, service employees, service companies and society). The concept of a value network has been developed from the S-D Logic to recognise that value is not only co-created between the customer and the company (see for example, Vargo and Lusch, 2011; Lusch et al., 2010). However, it has not been applied in an SST context before, and is therefore a contribution of this study. The present study contributes an understanding of how customers determine the value-in-experience, co-created in the SST value network. The interpretive analysis of the data not only describes these experiences, but also reveals the customer perceptions associated with each experience.
These perceptions determine the SST experience and are presented visually in Figure 7.1. This diagram depicts the four groups of SST experience determinants, resulting from SST usage. This diagram is proposed by the author, based on the emergent findings, and it is not a reflection of previous research. The first group is termed, by the author, as *benefits*, and it represents the perceived benefits for the customer from SST usage. The second group represents perceptions relating to *customer responsibility and skills* required in SST usage. The third group is termed *SST process* and includes the perceptions of the SST and the company which provides the SST. The fourth group is termed *social context* and represents perceptions relating to the presence and interactions with other customers in SSTs. This diagram may represent a useful tool for mapping the SST value-in-experience in terms of value-creating and value-destroying experiences.

Figure 7.1 Determinants of SST Experiences from a Customer Perspective

Source: The Author.
The first segment in the right upper hand-side of Figure 7.1 represents the customer perceptions of the benefits arising from SST usage. These perceptions may have a positive effect on value creation when the customer perceives that they enjoyed direct benefits from using SSTs. This relates to the customers’ achievement of utilitarian, hedonic and ethical value as identified in the discussion of customer motivations in Section 7.1. These perceptions relate to the value-creating experiences of accomplishment and supportiveness. Therefore, the customer perception that they have benefited through SST usage contributes to a value-creating experience.

In contrast, customers may not manage to realise the expected benefits from SST usage, or they may have to overcome perceived SST difficulties in order to obtain a service. When customers fail to achieve the utilitarian value of obtaining a cheaper or more convenient service, they express value-destroying experiences of lack of control and manipulation. Customers experience lack of control when they perceive that there were no valuable benefits accruing to them from SST usage in the given service situation (for example, the forced usage motivation). Some customers perceive SST usage as a challenge which they need to overcome in order to obtain the desired service. This is associated with a lack of control experience, with customers feeling that the service provider was imposing SST usage on them, and they had no control over how they obtain the service. This therefore reflects the forced usage motivation. Indeed, if customers receive a less beneficial SST service than in a personal service channel, they may perceive that they were manipulated into SST usage by the service provider.

The second segment in the right lower hand-side corner of Figure 7.1 represents the customer perceptions of their responsibilities and skills in SST delivery. Although it is the company who chooses to introduce SSTs, the customers perceive that they have a
responsibility in this process. Specifically, customers suggested that they have a responsibility to be technologically capable as well as able to protect their privacy and security online. Customers considered it reasonable to be expected to follow the instructions on the SST interface, and co-operate with the service provider to resolve any possible problems. When customer responsibilities were perceived as reasonable and not overly burdensome, this contributed to an accomplishment and supportiveness experience. This means that customers did not perceive that contributing to SST delivery, co-operating with company employees, or helping others to use SSTs, was unacceptable. However, even though customers recognise their responsibility towards SST delivery, they do not view themselves as having equal power and responsibility with the service provider in service design and implementation. It is ultimately the service provider who initiates service implementation and design, and therefore has to design the SST process in such a way that it is ‘foolproof’ to customer mistakes.

In contrast to these customer perceptions of accepting responsibilities for effective SST usage, participants also suggested that SSTs may leave customers vulnerable to being exploited by service providers. For example, customers felt upset when left by the service provider to struggle with an inefficient and badly designed SST. On some occasions, participants suggested that there was no room for human error or for possible misunderstanding of the instructions by the customer. In situations of service failure, customers suggested that some service providers sought to pass on the blame to customers and abandon them. These perceptions that customers are not in a position to influence the responsibilities being imposed on them by service providers contributed to lack of control and manipulation experiences. These experiences were often exacerbated by customer perceptions that they were insufficiently skilled to respond to the
requirements for operating the SST. This made customers feel inadequate and anxious when using SSTs.

The third segment in the left lower hand-side of Figure 7.1 represents the customer perceptions of the SST process. Customer perceptions of the SST interface relate to the comparison with similar SSTs of competing companies, or to alternative personal service options. Therefore, customer perceptions of the quality of the SST interface are relative and may change with the customer’s expanding experience of services and SSTs. Where the evaluation of the SST was favourable in comparison to other SSTs and service channels, the customer reported an accomplishment experience. If the evaluations were unfavourable, the customer expressed lack of control or manipulation experiences. Customers felt as though they were being deprived of using a more efficient SST.

The perceptions relating to the SST process include how customers perceive the service provider and the SST. Service providers were perceived as supportive when they provided efficient SSTs and promptly solved problems, regardless of whether the problems were the fault of the service provider or the customer. Such perceptions of the service provider were associated with supportiveness and accomplishment experiences. In contrast, companies may be perceived as unethical when they incorporate excessive bundling of product and price offers in the SST process. This may be perceived as an attempt by the service provider to confuse the customer and make them pay for service perks unintentionally. For example, a customer may inadvertently book first class seating on a train when their intention was to purchase a standard ticket. The present study highlights that when the customer perceives that the service provider is trying to
take advantage of them, this perception comes to the fore and overshadows the benefits from SST service. This therefore reflects the manipulation experience.

The service provider was perceived as unsupportive when the SST did not provide clear instructions or did not operate as expected. In such situations, the customer may resort to employee assistance, which was not always perceived as positive, even if the employee resolved the problem promptly. The extra effort on the part of the customer to initiate service recovery, such as having to wait on hold on a telephone call for a service representative, was perceived as destroying value for the customer. Customers perceived that customer service for SSTs was often inefficient or inaccessible which led to the negative experience of social tension between the customer and employee.

Furthermore, some participants suggested that it is the service provider’s responsibility to assist novice customers who are experiencing difficulties with the SST. For example, a customer helping another customer at a self-service kiosk may question why they are doing this on behalf of the company, and why a service employee is not present to assist. This perception may create a value-destroying manipulation experience for the customer providing assistance. This perception also created social tension experiences between customers who need assistance and customers who have to wait to use the SST. Alternatively, customers may perceive that the presence of an employee is unnecessary and their predisposition to assist other customers may result in a supportiveness experience. However, there was a prevailing perception that company employees should be available and responsive to assist customers with SST usage, but only if customers clearly indicate they require assistance.

The fourth segment in the top left of Figure 7.1 represents the customer perceptions of the social context of SST usage which may include the direct presence and interaction
with other people or the perceptions of SST usage in society. The social aspect of SSTs is still under-researched in the SST literature despite the recognition that there may be other people present in SST encounters (see for example, Collier et al., 2014; Gelbrich and Sattler, 2014). An analysis of the projective sentences technique component revealed that SST experiences are underlined by social identity perceptions of relationships between family members, such as that of daughter, son, grandparent and parent. For example, when helping an elderly customer, participants identified with their social identity of the ‘son/daughter’ helping their ‘father/mother’. Alternatively, elderly customers identified with their social identity of a ‘parent/grandparent’ when looking for help from another customer or employee who is a similar age to their own children. Therefore, social interactions with other users were often perceived as a positive exchange between customers and the presence of others at the service site was perceived as welcome.

It is interesting that when customers engaged in a social exchange of assisting members of their own family with SST usage, they were more inclined to report social tension experiences than when they helped strangers. For example, a son helping his father with online bookings described becoming impatient and wondering why it was taking his father so long to understand. Alternatively, participants suggested that when an elderly person was experiencing difficulties at a kiosk, they envisioned them as their own parent and were moved to assist them. The reported experience was a value-creating one of supportiveness, but it was obvious that participants were sometimes more tolerant and patient when assisting strangers as opposed to assisting family members.

The presence of others may not always be perceived as positive, they may for instance be perceived as a distraction or an obstacle to SST usage. People who experience
difficulties with SST usage may worry that they are delaying other SST customers, and also appear to be technologically challenged. The projective technique responses suggest that customers who appear to be challenged with SST usage feel that their social image is being damaged. This perception may explain the uneasiness about looking for help, or offering help with SSTs, especially to strangers. Previous research has confirmed that social presence at the service site relates to increased anxiety for SST users (see for example, Gelbrich and Sattler, 2014; Kinard et al., 2009), but the present study provides an understanding of why this may happen. Ethical and social values, such as being kind to others and maintaining a positive social image, may create uneasiness or a sense of obligation in the customer-customer and customer-employee interactions during SST encounters. Therefore, the social tension experience is underlined by perception that interactions with other SST users and service employees may be undesirable and awkward.

Although SSTs were perceived as beneficial, customers also expressed perceptions that SSTs may create a divide in society. Customers expressed perceptions that some people may be unfairly discriminated against, which led to the concern about discrimination experience. SSTs were often perceived as inevitable in contemporary services (‘this is the world we live in’) with customers obliged to get used to SSTs, whether they like it or not. These perceptions were linked to the lack of control experience when interacting with SSTs unwillingly, and also with a perception that the customer had no other choice. Some participants expressed concerns about the employees who may potentially lose their jobs because of SST implementation.

To summarise, a further contribution of this study is the identification of the various value-creating and value-destroying customer SST experiences in a tourism service.
context. Some of these experiences are close to the nature of the tourism experience and may enhance it. For example, the social SST experiences may relate to the interactive/social dimension of the tourism experience proposed by Otto and Ritchie (1996). SST usage may influence the social aspect of the overall tourism experience positively (supportiveness experience), or negatively (social tension and concern about discrimination experiences). Similarly, the experience of accomplishment may enhance the self-confidence and transformational aspects of the tourism experience (Aho, 2001), while the lack of control and manipulation experiences may negatively affect the hedonic and pleasurable aspects (Otto and Ritchie, 1996).

The findings reveal that SST usage occurs in the midst of a value network of stakeholders, including customers, employees, service providers, and society. Indeed, the interactions between these stakeholders may be complex and may not always contribute to value creation for the customer. This is evidenced in the contradictory perceptions which determine the value-in-experience. Therefore, the customer perceptions underlying the various SST experiences provide further understanding of customer evaluations of SSTs, as well as highlighting the factors contributing to customer satisfaction and dissatisfaction with the service (see for example, Narteh, 2015; Meuter et al., 2000).

7.4 Research Objective Three: To examine the roles that customers undertake in SST encounters in the tourism sector

Whilst the role of the customer has been extensively examined in the broader service context (see for example, Moeller et al., 2013; Chervonnaya, 2003; Bitner et al., 1997), the roles assumed by customers in an SST context have not been identified (Hilton et al., 2013). The understanding of service context specific roles, and how they contribute
to value co-creation, has been informed by the S-D Logic proposition that service value is co-created and phenomenologically determined by the beneficiary (McColl-Kennedy et al., 2012). Thus, researchers have recognised the necessity to explore customer roles in specific service contexts (see for example, Moeller et al., 2013; McColl-Kennedy et al., 2012).

The SST customer roles identified in the present study are those of convenience seeker, technological sweeper, motivated worker, enforced worker, unskilled worker, judge and assistance provider. These roles were identified as such by the author as she concluded that the customer roles identified in the extant literature (see for example, Moeller et al., 2013; Chervonnaya, 2003) were insufficient to encompass the customer perspective on their roles in an SST context. Some of the seven SST-specific customer roles detailed in this research bear some similarity to the general service roles identified in the literature, but the seven roles also introduce nuances specific to the SST context. Table 7.1 illustrates the seven roles identified in this SST-specific research, in the context of the more general service roles identified in the literature.

In Table 7.1, the first column organises the SST customer roles in terms of similarities to each other. For example, the convenience seeker and technological sweeper roles are grouped together because of similar customer perceptions that they are using SSTs to achieve their own consumption goals in the best possible way. In contrast, the motivated worker, enforced worker and unskilled worker, as their names suggest, reflect a perception that the customer is using SSTs, either guided or forced by service provider instructions. The judge and assistance provider roles reflect a customer perception of being a judge of the service process and a source of assistance to other customers.
<table>
<thead>
<tr>
<th><strong>Customer SST Roles</strong> (identified in this research)</th>
<th><strong>Customer Service Roles</strong> (identified in the extant literature)</th>
<th><strong>Customer-Service Provider Power Relations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience seeker</td>
<td>Decision-maker (Chervonnaya, 2003)</td>
<td>Customer-dominance (Heinonen et al., 2013)</td>
</tr>
<tr>
<td>Technological sweeper</td>
<td>Hunter (Chervonnaya, 2003)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contributor to quality, satisfaction and value (Bitner et al., 1997)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bargain-hunting independent (Moeller et al., 2013)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-reliant customizer (Moeller et al., 2013)</td>
<td></td>
</tr>
<tr>
<td>Motivated worker</td>
<td>Productive resource (Bitner et al., 1997)</td>
<td>Provider-dominance (Heinonen et al., 2013)</td>
</tr>
<tr>
<td>Enforced worker</td>
<td>Help-seeker (Parker and Ward, 2000)</td>
<td></td>
</tr>
<tr>
<td>Unskilled worker</td>
<td>Ingredient (Chervonnaya, 2003)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partial employee (Mills and Morris, 1986)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contributor to quality, satisfaction and value (Bitner et al., 1997)</td>
<td></td>
</tr>
<tr>
<td>Judge</td>
<td>Innovator (Graf, 2007)</td>
<td>Customer-dominance (Heinonen et al., 2013)</td>
</tr>
<tr>
<td></td>
<td>Marketer (Chervonnaya, 2003)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consultant (Ford and Heaton, 2001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality control inspector (Ford and Heaton, 2001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Auditor (Chervonnaya, 2003)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Source of competence (Graf, 2007)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instructor (Chervonnaya, 2003)</td>
<td></td>
</tr>
<tr>
<td>Assistance provider</td>
<td>Helper (Parker and Ward, 2000)</td>
<td>Customer-dominance (Heinonen et al., 2013)</td>
</tr>
<tr>
<td></td>
<td>Trainers of employees and customers (Ford and Heaton, 2001)</td>
<td></td>
</tr>
</tbody>
</table>

Source: The Author.

The second column depicts the service roles from the extant literature which bear similarities to the identified SST roles. For example, in a decision-maker and hunter role, a customer seeks out and evaluates service options in a similar way to the convenience seeker SST role where a customer perceives they have found, and are
using, the most convenient and effortless service channel. It is observed that the convenience seeker role is very specific; it does not broadly state that customers make decisions and evaluate service options. It specifies that in SST usage, customers seek out convenience, and then enhance their decision by highlighting how much more convenient the specific SST option is in comparison to other options. The second of the seven roles is the technological sweeper, which reflects a similar perspective to the convenience seeker of being enabled by SSTs, but uses a combination of various SSTs. In this role, customers craftily combine various SSTs to achieve the optimal service experience. Unlike the self-reliant customiser (Moeller et al., 2013), the technological sweeper does not customise the service, but rather they customise their access to the service.

In the third role of a motivated worker, customers perceive that they are skilled to undertake their production role in return for service benefits, while in the fourth role of an unskilled worker; they perceive that they are not sufficiently skilled, and therefore often require assistance from employees or other customers. The fifth role of an enforced worker reflects a perspective that the customer is being overly dominated by the service provider and is being ‘forced’ into undertaking unwanted responsibilities in SST delivery. All of the above three worker roles are reminiscent of the partial employee (Mills and Morris, 1986), ingredient (Chervonnaya, 2003) or productive resource (Bitner et al., 1977) roles, but are more specific regarding the effect that customers may undertake to fulfil service provider instructions in order to contribute to service production.

The sixth of seven roles is that of a judge, either in a positive or negative guise. When performing a positive judge role, customers perceive that they are competent to provide an expert opinion about the service, and they communicate feedback to the service
provider. In this role, customers may even generate creative solutions to problems with the service. In the role of a negative judge, customers focus on criticising the service without providing any constructive contributions towards service improvements. The judge role in this research may be compared in a limited manner to the roles of an innovator (Graf, 2007), marketer (Chervonnaya, 2003), consultant (Ford and Heaton, 2001), quality control inspector (Ford and Heaton, 2001), auditor (Chervonnaya, 2003), source of competence (Graf, 2007) and instructor (Chervonnaya, 2003). The judge role differs from these other examples as it highlights the provision of a judgement which seeks to improve the service. The negative judge displays a unique perspective of being personally critical of the service, but creates no value either for the company, or for the customer.

The seventh SST role of an assistance provider (either enthusiastic or reluctant) reflects SST users who assist fellow customers. This role may be compared to the general customer service roles of helper (Parker and Ward, 2000) and trainer of employees and other customers (Ford and Heaton, 2001). The reactive and proactive helper roles (Parker and Ward, 2000) bear some similarity to the reluctant and enthusiastic assistance provider roles in the present study. For example, an enthusiastic or a reluctant assistance provider may be a reactive, or a proactive helper. A reluctant assistance provider in this research may proactively, but unwillingly, provide assistance to another customer who is preventing or delaying the former from using an SST. Alternatively, an enthusiastic assistance provider may be a reactive helper in terms of actively watching for clear signs that another customer requires assistance in situations where social interaction may otherwise be interpreted as an invasion of privacy, such as banking ATMs. This distinction is necessary in an SST context where customers may have to help others use an SST in order to gain access to it themselves.
The participant reflections on their roles reveal that customers may assume their own SST role, or the service provider may design and assign roles to customers. This is in line with the customer roles literature which recognises that interactions between customers and service providers may take the shape of customer-dominance or provider-dominance (Heinonen et al., 2013). Therefore, the third column of Table 7.1 displays the nature of the customer-provider power relations which underline the SST customer roles. Customer-dominance means that the customer is effectively tailoring and undertaking a service role on their own initiative, while service providers facilitate consumers in achieving their consumption goals (Hibbert et al., 2012). Alternatively, the service provider may design the service and the roles that customers are expected to undertake when using the service, termed provider-dominance (Heinonen et al., 2013).

In SST context, provider-dominance is expressed as customers being assigned service delivery tasks, which they are required to complete successfully. This does not fully equate with the concept of provider-dominance in traditional personal service whereby the employee supervises service delivery and may adapt customer participation parameters accordingly. Hence, a distinction is necessary in SST context where provider-dominance may severely inconvenience the customer. Therefore, provider-dominance SST roles are termed ‘forced’ in the present study with customer-dominance SST roles classified as ‘voluntary’, in order to recognise the customer agency in undertaking SST roles on their own initiative. This distinction of customer roles as forced and voluntary has not been previously made in the service roles literature. This section thus far has focused on the seven roles; the author will now examine the roles according to the extent to which they are customer-dominant (voluntary) or provider-dominant (forced).
The convenience seeker and technological sweeper reflect a customer perception that they are empowered and have chosen to use SSTs to best achieve their goals; hence, they highlight the customer as independently co-creating service experiences, thus illustrating an example of customer-dominance. In contrast, customer perspectives of being dominated by the service provider are illustrated in the roles of motivated worker, unskilled worker and enforced worker. This customer perspective on SST roles reveals a perception that customers are dependent on the service provider to facilitate, monitor and determine the benefits from SST usage. The judge role (negative or positive) reflects not only customer-dominance in their SST roles, but also autonomy to undertake this role in addition to their main co-production roles. Graf (2007) classifies her roles of (i) source of competence and (ii) innovator as being independent of the customer role of partial employee which is necessary for the delivery of the core service. Providing advice to the service provider and helping other customers have been identified as voluntary behaviours by Groth (2005) and are separate from the main customer production role. Therefore, the assistance provider role may be defined as customer-dominant. The reluctant assistance provider may appear as a forced role, but effectively customers are not required to undertake this role by the service provider, instead they are choosing to do so.

The enforced worker role is of specific significance because it challenges the established customer-centricity in marketing (see Vargo and Lusch, 2004). In the age of customer empowerment by technology and customer-centricity in services marketing, the SST context provides evidence to the contrary. The enforced worker role depicts a perspective that the customer has no choice but to obey the service provider and must use SSTs if they want to gain access to a service. The customer perspective reveals that SST users do not always perceive their role in SST usage as consuming a service, but
rather as only delivering a service via SSTs on behalf of the company, or for the company. The S-D Logic suggests that value is co-created only when the customer consumes the service (Vargo and Lusch, 2008). Therefore, the SST customer is not always a co-creator of value in the traditional sense defined by the S-D Logic; this is a conclusion unique to the present study specific to the customer roles in SSTs. The enforced worker role and the corresponding forced usage motivation represent a significant finding which challenges research that suggests that when customer choice is reduced, they will develop switching intentions (see for example, Liu, 2012; Konus et al., 2009; Reinders et al., 2008).

The seven customer roles may be undertaken non-exclusively; a customer may undertake a number of roles simultaneously or transform from one role into another during the course of an SST encounter. For example, the following scenario may occur during a customer interaction with a self-service check-in kiosk at an airport. The customer may opt to use the kiosk because there was a queue at the personal check-in desk and they have used kiosk check-in before (motivated worker). The customer approaches the kiosk, but the interface appears confusing and numerous advertisements start flashing (unskilled worker). The customer then gets confused and slightly anxious. Other customers line up to use the kiosk which only escalates the anxiety. The customer decides to cancel the transaction because they feel they are holding up the queue. The customer appears visibly disappointed (unskilled worker during service failure). An employee from the airline notices this and offers assistance at which point the process is completed and the customer tells the employee that the pop-up advertisements made it difficult to follow the instructions (unskilled worker and negative judge during service failure). The employee appreciates the feedback and the encounter is concluded. This scenario illustrates how in the course of one SST encounter, the customer may
undertake a number of roles. The customer perspective may quickly change, and move from positive to negative interactions, depending on the customer perceptions of the service situation. This suggests that service roles tied to service classifications may be only a general guide as to what activities customers may undertake, but do not reflect how customers perceive their roles. This knowledge is necessary because customer perceptions ultimately determine the customer experience of the service.

The finding that customers may undertake a number of SST customer roles depending on the service situation challenges the accuracy of customer segmentation based on variables, such as customer willingness to interact with SSTs (see for example, Walker et al., 2002), demographic variables (Dean, 2008; Nilsson, 2007), and technology readiness (Tsikriktsis, 2004). The present study found no clear grounds for segmenting customers in such groups. One and the same customer could undertake a variety of roles depending on their perceptions of the service encounter. Rather than focusing on the influence of customer demographic (as in Dean, 2008) and psychographic characteristics (see Lee et al., 2010; Meuter et al., 2005) regarding SST usage, this study suggests that SST providers and researchers may strategically approach SST usage in terms of the seven roles identified in this research. This approach is based on subjective customer perceptions of their service situation roles and not on objective customer variables. Therefore, this research contributes an interpretivist perspective on SST usage which treats the customer-SST interaction as a subjective customer experience.

The significance of customer perceptions of SST usage is further emphasised by the connections discovered in this research between customer SST roles and experiences. The findings reveal that customer roles in this research may contribute positively or
negatively to value creation. The exact position of each role on the role-experience continuum is proposed by the author. This is an attempt by the author to illustrate that customer experiences with SSTs are not discretely positive or negative, but may be nuanced and reflective of the roles undertaken.

The roles of convenience seeker, motivated worker, positive judge and enthusiastic assistance provider are associated with the value-creating experiences of accomplishment and supportiveness, while the roles of enforced worker, unskilled worker, reluctant assistance provider and negative judge are associated with the value-destroying experiences of lack of control, manipulation, social tension and concern about discrimination. Thus, the author proposes that customer experiences can be placed on a continuum (see Figure 7.2 below) from value-creating to value-destroying in relation to the customer SST roles.

Figure 7.2 Role-Experience Continuum

Source: The Author.
A convenience seeker’s experience appears to be more desirable by the customer than the experience of an enforced worker role. The customer experiences in the roles of technological sweeper, convenience seeker and motivated worker are all described as accomplishment, but there are slight nuances. Whilst the convenience seeker and technological sweeper value the efficiency and enjoyment of the SST encounter, the motivated worker values the benefits that the SST encounter offers over other service modes, but also recognises the ‘work’ that they have to do to obtain these benefits, which is a negative perception. Therefore, the value for the customer is higher in the technological sweeper and convenience seeker role than in the motivated worker role. The positive judge feels competent when providing informed judgements about SSTs which contributes to an accomplishment experience. Moving to the right of the continuum, the roles of unskilled worker, negative judge and enforced worker display associations with value-destroying experiences, because the customer is not in a position to easily realise optimal value from SST usage. The enforced worker role is placed at the far right as destroying value for the customer, due to the customer perception that they are working to suit the company’s requirements, and that their own requirements are secondary to those of the company.

Social SST experiences may accrue from aspects of the assistance provider and unskilled worker roles. When customers assist others reluctantly they create a value-destroying social tension experience. In contrast, when engaging as an enthusiastic assistance provider, the resulting experience is one of supportiveness, which is a value-creating experience. Similarly, when unskilled workers require assistance, they may interact with service employees and other customers to complete the transaction in a supportive manner, resulting in supportiveness experiences. Alternatively, they may feel embarrassed to look for help, or they may not receive assistance in a supportive manner,
which may result in social tension experiences. The representation of customer roles as value-creating and value-destroying has conceptual significance because they require different management and facilitation. With the exception of McColl-Kennedy et al. (2012), the service roles literature suggests that customers may have positive or negative experiences depending on their level of skills and motivation to undertake an agreed service roles script (see for example, Chervonnaya, 2003; Bitner et al., 1995; Solomon et al., 1985). The present study suggests that customers may not only undertake a role successfully or unsuccessfully, but they may undertake roles which are inherently value-creating or value-destroying. This perspective suggests that the service provider should not focus on how to train customers to follow a general service script efficiently, but on how to transform them from value-destroying to more value-creating roles on the role-experience continuum. This perspective on customer roles provides infinitely more scope for co-creating value with the customer, than merely training customers to achieve the operating standards set out by the service provider. In the following section, the author examines her model of SST usage which seeks to illustrate the nature, nuances and complexities of a customer’s SST usage and experiences, thereby constituting a key contribution of this research.

7.5 Conceptual Model

This section further highlights the contribution of the findings from this study in light of the SST literature. The extensive literature review detailed in Chapter Three identifies existing concepts in the SSTs and services management literature which may provide understanding of how customers use and experience SSTs. This review formed the background to the preliminary model of the three-stages that comprise SST usage, namely, decision-making, activation and evaluation stages (presented in Figure 3.5).
This model then served as a conceptual guideline for the empirical data collection (see Section 3.8).

Upon analysis of the research findings, the author now presents a detailed conceptual model (see Figure 7.3 below) as one of the contributions of this research. This model seeks to depict the factors and influences that underpin customer SST usage, as well as considering the social contexts in which SST usage occurs. The main contribution of the model is that it extends not only the understanding of ‘why’ customers use SSTs, but also their perceptions of ‘how’ they produce and consume such service. This represents a radical change from the preoccupation in the SST literature with adoption factors affecting the customer decision to use SSTs (see for example, Yang et al., 2014; Patsiotis et al., 2013; Meuter et al., 2005). A major contribution of the present study is its interpretivist stance whereby the centre of interest is the customer experience, personally encountered by the participant, and not the testing of correlations between predetermined variables.

The model in Figure 7.3 aims to clarify the contribution of this research; hence, the areas where new concepts are introduced are marked with broken lines. The remaining three-staged structure and titles of the stages have been adopted from the literature review, and are represented by the continuous lines. Each of the three stages is further examined in the following sub-sections.
Figure 7.3 Conceptual Model of Customer SST Usage

Stage 1: Decision-making

SST Adoption Factors
- Technology anxiety
- Technology readiness
- Consumer readiness
- Attitude
- Ease of use
- Usefulness
- Preference for personal contact
- Demographics
- Trust
- Risk
- Situational influences
- Innovation attributes
- Personal characteristics

SST Usage Motivations

Utilitarian
- Convenience
  - Unlimited access
  - Efficiency
- Control
  - Independence
  - Predictability
- Access to Lower Price
  - Cheaper service offerings
  - Cheaper service channel

Hedonic
- Enjoyment
  - Fun
  - Novelty
  - Challenge

Ethical
- Eco-friendliness
- Empathy

Forced Usage
- No other option
- No better option

Stage 2: Activation of SST Usage

SST Customer Roles
- Convenience seeker
- Motivated worker
- Technological sweeper
- Judge
- Enforced worker
- Unskilled worker

Stage 3: Evaluation of SST Usage

SST Experiences

Value-creating
- Accomplishment
- Supportiveness

Value-destroying
- Lack of control
- Manipulation
- Social tension
- Concern about discrimination

Customer perceptions of social context

Customer perceptions of SST process

Satisfaction/Dissatisfaction with SST Usage

Perceived outcomes from SST usage

Customer views of responsibility and skills

Source: The Author.
7.5.1 Stage One: Decision-Making

Before customers become actively engaged in SST usage, they make a conscious decision to do so. This first stage is presented in the left-hand side of the conceptual model, namely the decision-making stage. The cognitive processes leading to SST usage decisions have been researched by applying various motivational theories, such as TAM (Walker and Johnson, 2006; Dabholkar and Bagozzi, 2002), DOI (Meuter et al., 2005; Bitner et al., 2002) and Self-Determination Theory (Leung and Matanda, 2013). Amongst the most influential SST adoption factors are technology anxiety, technology readiness, preference for personal contact and situational influences (such as queues at SST terminals, limited choice/forced usage and social presence). Although SST adoption factors have provided extensive understanding of the customer intentions to use SSTs, customer motivations have received less attention (Collier and Barnes, 2015). Therefore, a contribution of the present study is its examination of the complex nature of customer motivations for SST usage.

For example, the findings from this research suggest that SST usage motivations are contrasting and diverse. The literature suggests that customers use SSTs for utilitarian and hedonic reasons, but the present study found evidence of two other groups of motivations, those of ethical and forced usage. At one level, customers are enthusiastic to engage with SSTs because they provide them with benefits in terms of convenience, control, lower price and enjoyment. Therefore, SSTs may suit both customers’ needs to deliver services independently and the service provider may realise operational cost savings. On another level, customers engage with SSTs unwillingly, but obediently, because they perceive that there are no other alternatives for accessing the service. In this situation, although SSTs do not suit customers, they oblige the service provider and
use them. It appears that regardless of whether SSTs suit customers, they may still continue to use them.

Indeed, the findings suggest that customers may be motivated to use SSTs even if they do not derive direct service benefits. The findings from the present study suggest that customers may use SSTs with empathy and eco-friendliness motivations. They may explain how to use an SST to a fellow customer who is in need of assistance, suggesting an ethical element to the usage. Customers may be motivated by eco-friendliness because SST usage reduces paper consumption, again suggesting an ethical dimension. This aspect of SST usage motivation indicates that SSTs may not only improve service delivery, but also facilitate customers to achieve other non-service related ethical values. It is observed that these ethical value motivations were not previously identified in the SST literature.

7.5.2 Stage Two: Activation

The second part of the process, namely the activation stage, represents how customers become involved in SST usage. SST adoption models test if customers will decide to use the SST; while the model proposed in the present study highlights how customers may become involved in SST usage through undertaking service roles. The application of customer roles to SST usage is novel. SST research has provided understanding of the factors leading to the customer decision to use SSTs (see for example, Tseng, 2015; Meuter et al., 2005) and what customers like/dislike about SSTs (Dabholkar et al., 2003; Meuter et al., 2000), but not what customers do when delivering and consuming the service. The role of the customer has been limited to applying skills and knowledge to operate the SST (Meuter et al., 2005). The customer SST roles in this research reflect what customers perceive they do during SST usage. This perspective highlights that
customers do not use SSTs in the same way, and indeed, they may undertake different roles in accordance with the specific service situation. This finding is a feature of the interpretivist approach undertaken in the present study.

Customer service roles are an established concept in the service management literature, which clarify the part that customers play in service delivery and consumption. These roles provide general guidelines, for example, that the customer contributes to the quality of the service (Bitner et al., 1997), the customer customises the service to their preference, or the customer co-operates with the service provider to solve a problem (Moeller et al., 2013). The findings from the present study suggest that the roles from the service management literature are not sufficient to provide insight into how customers use SSTs.

Seven customer SST specific roles are identified in this research and are presented in the broken line circle of Stage Two, in Figure 7.3. These SST customer roles suggest that the customer is always a co-producer of the service, but not always a consumer. These customer SST roles therefore reveal new nuances and differences to the general roles already identified in the services literature, as discussed in Section 7.3. For example, the SST role of technological sweeper reflects a specific customer perception that they craftily combine a number of SSTs in a service delivery. This role provides a more specific understanding of SST usage, than the general role of self-reliant customiser (Moeller et al., 2013) which does not communicate clearly how the service is actually customised by the user.

This detailed and specific understanding of customer roles in the context of SST usage also reveals that some roles are inherently value-creating and others are value-destroying. The SST roles in the present study are derived as an outcome from the
customer experiences of SST usage and do not represent determined scripts that customers need to fulfil if they want to use the service successfully (see for example, Meuter et al., 2005; Chervonnaya, 2003). Therefore, the roles introduced in this study reflect a novel, interpretivist perspective on customer SST usage.

7.5.3 Stage Three: Evaluation

The third stage, termed the evaluation stage, represents the cognitive processing of the experience created during the activation stage. Value for the customer is created in the SST usage experience; hence, the concept of value-in-experience (Heinonen et al., 2010) has been applied in order to understand how SST experiences represent value for SST users. The customer service roles have been empirically linked to the value and quality of the service experiences (see McColl-Kennedy et al., 2012; Bitner et al., 1997; Guiry, 1992) which is also evident in the findings from the present study.

The findings from this research contribute to the third stage of evaluation by exploring six distinctive customer SST experiences and their implications regarding the value for the customer. The SST research has developed a number of concepts in order to understand customer evaluations of SST usage (see Section 3.6 of literature review) including service quality, service fairness, service benefits, customer SSTs and service expertise. The present study furthers the understanding of the specific determinants of SST value-in-experience. These determinants emerged as perceptions in customer reflections and discussion of SST experiences. Therefore, the author suggests that the emergent determinants of SST experiences in the present study facilitate a more holistic and uniform approach to understanding how customers evaluate their experiences of SST usage.
The SST experience determinants are organised into four groups, namely, benefits, customer responsibility and skills, SST process, and social context, and these are presented in the broken line circle in Stage Three in Figure 7.3. The concept of value network was applied from the S-D Logic to reflect the findings that customers interpret their experiences in terms of the various interactions with the SST interface and the company, other customers and company employees. These interactions represent the two aspects of value-in-experience: customer-SST and customer-customer/employee.

This study provides insights into how customers engage in SST usage, and how they interpret their experiences. These insights reveal that customer SST usage is not a straightforward customer-technology interaction where the customer follows instructions, completes the transaction, and feels empowered and satisfied with the outcome. The findings suggest that the SST usage context may even contradict the established marketing logic of customer-centricity. Indeed, this process is much more complex and involves interactions between various stakeholders including service companies, service employees, customers and society.

The author thus proposes that SST usage is a dynamic value network where the SST user is a central co-producer, but not always a consumer. This may represent a more appropriate perspective to understand customer SST usage rather than the static adoption factor models established in the SST literature (see for example, Curran and Meuter, 2007; Walker and Johnson, 2006; Meuter et al., 2005). The network perspective broadens the view of the SST user as someone who seeks to (ease of use) maximise service benefits (usefulness) and portrays the SST user as a central co-producer in a value network who is concerned with the overall service operation. The SST usage model proposed in the present study illustrates the complexities of SST
usage by recognising the contradictory nature of customer objectives, experiences and roles. The following sections offer recommendations for further research and discuss the implications of the findings of the present study for SST research and management practice.

### 7.6 Recommendations for Further Research

This study proposes and provides empirical justification for a model of customer SST usage through an S-D Logic lens. While the participants represent a diversity of demographic and social backgrounds, the data were collected from a convenience sample and hence slightly different insights may be found with a homogenous sample of participants. Furthermore, the focus of this research was a tourism context thus findings may vary in other SST contexts. For example, the SST context for a business traveller may be different to that of a leisure holiday-maker in that the business traveller may be constrained by organisational parameters such as corporate budget and time availability. Therefore, future research may explore customer experiences with SSTs in various service contexts employing the conceptual model proposed in this research.

This research has provided a deep understanding of the nature of customer SST experiences and the customer perceptions which underlie them. Future research may study how these perceptions inform service provider strategies for enhancing value for the customer. Indeed, the value network perspective introduced in the present study reveals that customer experiences may be severely compromised if customers feel that they are not contributing to a worthwhile service operation. On occasion, a suggestion was made that service companies deliberately design SST processes to confuse customers and make them spend more money, make costly mistakes or unintentionally purchase unwanted products and services. This perception arose from the manipulation
experience, which is a value-destroying experience. Further research may be necessary to understand the origin of these perceptions and indeed, to provide advice as to how service providers can challenge and respond to these perceptions. Experimental research may explore how changes in the design of an SST interface may provoke or erase such negative customer perceptions.

Participants in this research suggested that a cluttered SST interface may be perceived as an attempt by the service provider to take advantage of the customer. For example, a website may offer many confusing tick/untick boxes for customising the service. Similarly, too many advertisements and additional services were perceived as deliberate distractions introduced to make the customer spend more money by mistakenly purchasing unnecessary services. Therefore, future research may search to establish how informational cues in the SST process affect the customer perceptions of the service and the service provider.

Some websites now utilise a chat facility where customers may interact with an employee when using the SST. This facility may be appreciated by customers because they do not have to wait on hold for a telephone operator and also one operator may serve a few customers at the same time. Furthermore, written communication in chat messages and email was suggested as being preferable by some participants in this research because it avoids misunderstanding due to language, accents or poor hearing. Therefore, further research may be warranted to understand how this type of customer service affects the customer-provider relationship and the customer roles when using the SST. For example, does it improve customer knowledge to operate the SST, or do customers become reliant on easily accessible help from an employee? Employee assistance which is too readily available may prove to be counterproductive in an SST
context as it may encourage some customers to just ask the employee to complete the
transaction for them thereby negating the ‘self’ nature of SSTs.

On occasion, there may be a threat to customer security when using SSTs, such as
banking ATMs or ticketing kiosks at remote stations. Service researchers should also
explore the social context of using SSTs, especially with on-site SSTs which are for
shared customer usage. The introduction of measures for increasing the security
perceptions when using SSTs may be explored in experimental research designs, for
instance the effect of introduction of surveillance cameras for SSTs which are situated
in unattended locations, or a call button for immediate employee intervention. The
implementation of an SST should be strategically evaluated in relation to psychological
outcomes for the customers, such as helplessness, social tension, and fear for personal
security and privacy.

The findings from this research suggest that customer social interactions during SST
encounters are frequent and may affect the SST experience positively or negatively;
therefore a more detailed investigation is merited to develop in-depth understanding of
these interactions. Further research may explore in more detail how the customer
experience is affected in the various social assistance contexts, for example when the
helper is in a hurry, when they are in a good or bad mood or when the person being
helped is elderly. Future research may also explore the nature of social assistance,
including interactions such as pointing out the right button to use and explaining tips for
better usage of the SST.

Even for SSTs used in the comfort of customers’ homes and on customers’ own
technological devices, social influences are still identified. These social interactions are
not observable for the service provider, but they may influence the customer’s overall
SST experience. For example, a customer booking a flight online may need to leave the computer and wait for their spouse to give their agreement for the purchase. They may also be distracted or helped by other family members. Further research is necessary to explore how such distractions and interventions may be planned in the design of the SST interface, so that it may accommodate pauses, re-confirm choices and break up booking processes for later completion.

In addition to face-to-face social interactions, social aspects of SST usage were also identified in the usage of social media in relation to SSTs. When using SSTs such as online booking websites, customers may engage with other customers in forums where they review a service or provide recommendations for other customers. In this study, one participant asked a friend for assistance over social media while interacting with an SST. This merging of social media with SSTs merits further research to identify strategic approaches in optimising customer experiences.

Another contribution of this research is the understanding of the various customer motivations for SST usage. The findings suggest that customers use SSTs for their own benefit, but may also be concerned with how the overall service operation benefits society. This research found that through SST usage, customers fulfil values such as efficiency, excellence, enjoyment, altruism and environmentalism. Future research may explore other customer consumption goals and values which may lend themselves to SST implementation. The findings of the present study emerged from participant accounts of their SST experiences. A research design which explores the wider context of customer life experience may be useful in identifying customer goals and values which may be better fulfilled by introducing an SST.
This research introduces customer roles specifically in an SST context in order to understand customer SST usage. This approach facilitates the understanding of customer SST usage beyond their decision to engage with the service and promotes a focus on the usage itself. For example, a motivated worker or a convenience seeker would both use an SST and the ‘volume’ of their usage may be similar. In both of these roles, the customer may report the same strength of motivation or satisfaction rating with the encounter. Although the motivation and satisfaction may be similar, the customer perspective on their SST role would provide understanding of the sustainability of these customers’ SST usage. The motivated worker, who engages with the SST because they value the monetary savings, but describes their actions as ‘hard work’, may discontinue their SST usage if the monetary incentive is removed. In contrast, the convenience seeker motivated by low price and convenience, but who regards their actions as a pleasurable activity, may continue with their usage even if the price incentive is removed. However, the convenience seeker may discontinue usage if a more convenient SST option is provided. Therefore, future research would need to incorporate customer role perspectives in SST adoption models in order to gain accurate understanding of customer behaviour.

Lastly, this research suggests that a number of SST roles may be undertaken by customers during an SST encounter. A possible objective for further research may include exploration of any existing connections or sequence of undertaking SST roles when using various SSTs. This may be helpful in planning service provider management of customer participation in SSTs. Future research may also explore the service provider perspectives and their strategies for management of SST customer roles and experiences.
SSTs and media platforms are constantly developing, with mobile devices and wearable technology being the latest innovations (Accenture, 2015). Mobile device SSTs such as smart phone flight check-in, self passport control, accessing hotel services via a tablet and travel guide applications have rapidly gained adoption amongst tourism customers. Therefore, further research may track how the adoption of these devices may change the customer SST motivations, roles and experiences. A longitudinal design may also track how customers adapt their SST roles to new SST designs and how this may be facilitated by service providers. The findings from this research also have implications for management practice, discussed in the following section.

7.7 Recommendations for Management Practice in Service Organisations

The purpose of this research was to explore the customer perspective on their usage and experiences of SSTs in tourism. Since customers are central producers during SST encounters, their perspective on SSTs is of importance in ensuring continued usage. The findings may aid service managers in more effective and sustainable implementation of SSTs. This section outlines how specific aspects of the findings may be applicable to SST management practice.

The findings reveal the types of customer SST experiences and the customer perceptions associated with them. SST service managers may utilise this knowledge to plan strategic interventions and enhance customer value. For example, the accomplishment experience was associated with perceptions that the SST mode excels other service modes, and a perception that the customer effort towards completing the service is minimal. This means that managers may influence customer perceptions of the SST mode in order to enhance the customer accomplishment experience. Some
strategies may include the downplaying of the quality and benefits from other service channels (Dholakia et al., 2010; Konus et al., 2009; Reinders et al., 2008). For example, a tourist mobile guide application may be marketed by communicating the freedom that it offers to tourists for exploring a destination in their own time as opposed to following a group guided tour.

The recognition of customer achievements when using SSTs may enhance customer perceptions of accomplishing service benefits. For example, the SST process design may incorporate a message congratulating customers for successful completion of the transaction and indicate the amount of time or money customers have saved by using the SST option. Loyalty programmes where customers collect points and earn free flights or accommodation may be effective in enhancing the feeling of having accomplished more through SST usage. In that way, the customer value-in-experience can be enhanced.

In addition to the identified process of comparison between service channels, customers also evaluate the SST process against their expectations of service efficiency. This perception does not include a comparison with an existing service channel or SST as identified above, but the customer expectations of an ideal SST service. These perceptions should be captured by service providers and utilised to fuel service innovation and improve the customer experience. From the findings of this research, it emerged that on occasion, customers may perceive certain SST features as inefficient. For example, if an SST breaks down and the customer has to contact a member of staff to rectify a simple error, customers suggested that they will willingly fix the error and speed up the service recovery if provided with instructions. This suggests a level of tolerance and goodwill on the customer’s part which is not utilised by service
companies. Therefore, companies need to know the extent of this tolerance: how can the ‘well of human kindness’ be facilitated and at what point does it run out?

Customers demonstrated awareness that they contribute to service delivery when they use SSTs and facilitate the service provider to realise cost savings. Manipulation and lack of control experiences are largely determined by negative perceptions of the service provider as not being appreciative of customer contributions to service delivery, and unnecessarily inconveniencing customers by asking them to use SSTs. These value-destroying customer experiences may be alleviated by implementing procedures which recognise the customer as a partner in service production. Service providers may periodically thank their customers for co-operating in SST usage, helping the company to deliver better service and improving the wellbeing of society. Regular tokens of appreciation may help build a better relationship with the customer and even elicit valuable feedback and suggestions from customers. Indeed, in this study, customers expressed negative perceptions when the service provider disregarded their feedback or suggestions to improve the service process. Therefore, a key recommendation for SST providers is to recognise and appreciate SST users not as ‘partial employees’ or ‘consumers’, but as stakeholders who oblige the company and facilitate its production processes. This approach will help create harmony in the customer-company relationship by returning the goodwill extended by the customer towards the company when they use SSTs.

Furthermore, the lack of control experience is often determined by a perception that the customer is not sufficiently skilled to use the SST. It was demonstrated in the projective sentences technique component that some of the pre-conceptions about SST users are grounded in prejudices. For example, the smart phone air travel check-in facility was
perceived to be used by business people, who are tech-savvy and intelligent. From a marketing perspective, such a perception is not beneficial in terms of the adoption of this SST by the wider public. Therefore, service marketers’ efforts may be aimed at changing SST preconceptions and communicating the usefulness of the SST to all of their customer segments. For example, a self-checkout kiosk at a hotel may be marketed equally as a fast service facility for business people and an entertaining way for a family to pay their hotel bill. This would reduce the perceptions of exclusivity of the SST for a certain type of customer and alleviate the anxiety in the lack of control experience.

The comparison of customer skills described above may also affect customer perceptions of self-efficacy. The findings from this research suggest that an intervention in the customer skill evaluative processes may be a viable strategy for lowering technology anxiety. For example, the design of an SST interface which adapts to the needs of users with different skill sets may reduce such negative evaluations. In this way, customers do not need to compare their skills to the average skills required of a user to engage with the specific SST. Therefore, scalable interface designs may be recommended for service companies with a diverse customer base in terms of SST operational skills.

The participants in this research expressed concerns about job losses, customer exploitation and depersonalisation of the service encounter and society in general due to the widespread permeation of technology. This again highlights the customer concern with the overall societal outcome from the SST usage operation and not only the benefits individually achieved, by the provider or customer. Such customer concerns need to be addressed in corporate and marketing communications in order to improve customer experiences of SSTs, as well as to protect the image of the corporate brand.
For example, an online self-service business creates a range of new jobs such as IT development staff, marketing, customer support and sales support. The concern that SSTs may pose challenges to certain segments of society may be outweighed by the improved accessibility that SST may create for others. For example, SSTs in health services such as electronic blood pressure monitors allow for patients to conduct simple tests and monitoring of their condition from the comfort of their homes. This may be invaluable for patients with mobility issues. SSTs may also increase the accessibility of services for deaf and blind people which should be considered by SST managers. Multilanguage SSTs are another form of increased accessibility to the service. Therefore, SST providers should consider implementing accessibility options in the SST design which will significantly decrease customer perceptions of discrimination.

It is not unusual for customers to find an SST challenging to operate at times. Therefore, they may interact with other people and service employees to cope with the situation. This should be evaluated by the service provider when implementing an SST in their specific service context. Although the customer experiencing difficulties may be stressed, they may still have a pleasant experience if the service provider has taken the necessary measures to facilitate a seamless service encounter. The findings suggest that some customers may feel uneasy about looking for help with SSTs because it is perceived as damaging their social image. Therefore, SST providers may consider how to introduce employee help without threatening the customer image and their service experience. For example, an airline may introduce a ‘novice customer’ kiosk which is attended by an employee showing customers how to check-in. The ‘novice customer’ label conveys a positive message and the customer chooses if they prefer to be assisted before they have started the transaction. In this way, the employee-customer interaction
may be more favourable than waiting for employee assistance because the customer is obviously unable to finish the transaction.

The projective sentence technique component in Stage Two of this study revealed that if the customer in need of help was perceived as belonging to the category of people who generally experience difficulties with SSTs such as the elderly, tourists or novice users, they would be offered help. If they did not clearly appear to be experiencing difficulties, then the situation may become more awkward. The customer experiencing difficulties may become conscious of inconveniencing other customers, while the person willing to provide assistance may refrain from doing so in case their help was interpreted as intrusive. Therefore, service providers need to consider providing a number of interfaces close to each other, so that customers may easily interact if needed without causing queues and impatience. The above suggested introduction of a ‘novice customer’ kiosk, or an option on a website, may save embarrassment and facilitate a better customer experience.

The customer experience of social interactions during SST encounters is also influenced by social identity perceptions. Family member social identities interfered with how customers engage and experience social interactions. Some participants described the experience as unwillingly assisting an elderly family member out of obligation (social tension experience). Surprisingly, customers were inclined to project these family member identities on to strangers in social interactions during SST encounters and these experiences were perceived in a better light. This paradox needs to be evaluated by service providers in designing the SST process. For example, the SST experience may be enhanced if social assistance interactions were facilitated between strangers rather
than family members. This may be achieved by an online help forum or chat so that family members will not be the first point of call with SST usage assistance.

The social context may also include interactions over social media. For example, some customers may coordinate plans over social media or consult other customers’ reviews on social platforms. Social media, especially with the rise of mobile device platforms, has implications for tourism experiences in the planning, at destination and post-trip stages (Wang and Fesenmaier, 2013). The intertwining of social media and SST options is already evident in examples such as TripAdvisor and Booking.com, where users may read customer reviews and book their trip. The integration of social media and SST options should be evaluated strategically so that it creates supportive experiences and not social tension or concern about discrimination. For example, an SST may contain a share button which allows the customer to send a booking itinerary to a friend with the click of a button. Also SSTs may allow for customer collaboration via a shared platform. These service provider interventions will increase the effectiveness of interactions between the stakeholders in the SST value network.

SSTs can be environmentally friendly in many ways which provides an opportunity for further collaboration in the SST value network. Examples include cutting down on paper used for administration which may be conducted online or reducing electricity consumption via smart meters. Such an understanding of the customer perspective provides new insights towards the possible development of the SST value network and also the enhancement of the provider’s corporate brand image in terms of being environmentally conscious.

In addition to enhancing customer perceptions of SST experiences, managers may also improve the customer experience by facilitating customer service production during the
SST encounter. The findings suggest that customers perceive that they undertake seven distinct SST roles. Service providers may evaluate how each of these roles may be undertaken in the context of their own service and plan marketing interventions accordingly. Rather than simply segmenting their customers in terms of demographic variables (Dean, 2008) and technology readiness (Tsikriktsis, 2004), SST service managers may approach service management in terms of the seven roles identified in this research.

For example, a service provider implementing a kiosk SST may evaluate customer adoption in terms of how each of the seven roles may be undertaken in the specific context. A number of key questions need to be considered by the service provider: are the instructions and functionality of the SST easy enough for customers, so that they may undertake a convenience seeker role? Is the SST allowing for a transition to another SST option for enhanced convenience to the customer (technological sweeper role)? What are the potential challenges that the SST may pose to a customer (unskilled worker role), and how may the customer be assisted in the situation? Some customers may be willing to evaluate the process and give valuable feedback (a positive judge role). How will the feedback from these customers be captured in an efficient and rewarding manner? How is customer participation accommodated in situations of service failure? In this manner, the SST provider may evaluate the various SST roles which customers may undertake when using the SST and take appropriate measures to facilitate more value-creating SST customer roles. The remainder of this section provides recommendations as to how each of the seven roles may be facilitated by service providers.
The convenience seeker role is undertaken when customers have sought out and are using the most convenient service option to obtain the service. Managers may explore which type of SST interfaces and processes best facilitate a convenience seeker role in the context of their service. This may include implementing the latest SSTs with impeccable design and an absence of technological glitches. The research findings suggest that smart phones and mobile technologies are the leading technology used by such customers and investing in an excellent mobile application may win their favour and ensure their loyalty.

Technological sweepers combine benefits from using various technologies during the service encounter. The technological sweeper role may be facilitated by providing SST options for customers to choose from when obtaining a service. For example, some booking systems may allow for completing the booking from a desktop, and then receiving the electronic ticket on a mobile device which is then produced at a check-in portal. This system includes three SSTs, a website, mobile app and check-in portal, which link seamlessly for customer convenience. Such integrated systems are becoming the norm for many service providers including airlines, banks and events ticketing, and would be especially attractive to technological sweepers.

Customers who have SST and service experience are likely to engage in the role of a judge. Those customers may be very valuable to the organisation because they are likely to get cognitively involved with the SST and find ways to improve its functions. The service provider may give such customers an opportunity to be involved in SST monitoring and innovation. It is important to provide a platform for customer feedback which also recognises the customer input. Customers may derive great satisfaction from being able to help the service provider in improving the service. Therefore, a system
should be put in place which evaluates and recognises customer feedback and provides the customer with information on how their feedback was implemented, such as posting the customer comment on the company’s online discussion board, or acknowledgement on the company’s social media platforms. In this manner, the company is seen to publicly acknowledge the contribution of the customer, thus enhancing their perceived customer-centricity.

Motivated workers are ready to follow instructions and co-operate; therefore, companies should make requirements and instructions explicit, and include feedback at each stage of the process. Since motivated workers perceive SST usage as ‘work’ in return for benefits, service providers should be explicit about the benefits from using the SST. The motivated worker role may be enhanced by making the ‘work’ aspect of service delivery as easy and pleasant as possible.

The enforced worker role is associated with value-destroying experiences and service providers should facilitate customers in this role to transform to one of the previously described value creating customer roles. This may be achieved by improving features of the SST process which appear to discourage customers from SST usage. For example, the customer may feel that certain aspects of the SST process impose too much responsibility on them. This may be the case with customer mistakes with online bookings in which errors inevitably occur. The effectiveness of customer support strategies should be explored, such as easy contact and rectifying of the mistake by a service employee, or mechanisms for the customer to make corrections. When customers are forced to bear the consequences from a genuine mistake due to oversight, they undertake an enforced worker role. Therefore, if the service provider facilitates
correction of customer mistakes, this may transform the customer from an enforced worker to a motivated worker role.

When a customer constitutes an unskilled worker, they need support to perform the required operations, as they may be technologically challenged. Companies may proactively assist such customers by teaching and helping them. Some websites may have monitoring facilities which alert a company employee to engage via online chat with a customer who appears to have difficulties. This research revealed that in an SST kiosk situation, some customers did not like to be helped by customers or employees. This suggests that instructions for usage need to be clear and visible instead. Furthermore, if the kiosk is part of a service process where online booking is completed first, such as kiosk check-in at airports, the company website may provide *a priori* instructions or demonstrations on their kiosk operation.

Customers undertake the role of an assistance provider when in a situation of helping another customer with SST usage. This role may be only marginally facilitated by service providers. Where interactions between customers are not observable to the service provider, such as with website usage, they may not control how customers interact. Even so, the SST process may accommodate the intervention of another person, for instance with a booking process where the person responsible for and making a booking, is different from the person travelling. In the case of onsite SSTs, a queuing situation may arise when customers have to share the usage of an SST. This may create tension between customers and put others in an assistance provider role unwillingly. When there are a number of SST interfaces at the service site, customers who do not wish to undertake an assistance provider role may swiftly move to another machine.
As displayed in this section, the findings from this research may enable SST managers to provide improved service experiences for their customers. The limitations of the present study are discussed in the next section.

7.8 Limitations of This Research

The present study employed a two-stage qualitative exploratory research design from an interpretivist perspective. This research design allowed for exploration of the customer perspective on their SST usage and experiences and the discovery of new knowledge which addresses current gaps in the SST literature. This research contributes a conceptual model of customer SST usage. Existing models of SST adoption in the literature focus on the influence of various factors on the customer usage decision (see for example, Patsiotis et al., 2013; Wang, 2012; Meuter et al., 2005; Bitner et al., 2002), while the present conceptual model provides further understanding of how customers use SSTs and their resulting experiences. Stage One (short qualitative interviews) gained a broad perspective of customer SST experiences, but the depth of discussion was limited by the length of the interviews. As recommended by Carson et al. (2001), a second stage of in-depth interviews was conducted with the purpose of further generating rich data whilst also increasing the credibility and trustworthiness of the research. The in-depth interviews allowed for more extensive discussion of the themes which arose in Stage One.

Although the research was designed with a view to minimise limitations, there are certain limitations which need to be considered when determining the scope of applicability of the findings. The main limitations include the cross-sectional nature of the research and its focus on customer usage of SSTs in the broader tourism sector. The context of this research was customer usage of SSTs in tourism; hence, the proposed
model of SST usage may require amendments for other service contexts. Even so, the author suggests that the foundations of the proposed conceptual model may still be applicable to other sectors.

Another limitation represents the recruitment of participants for this research. Participants in Stage Two of this research (in-depth interviews), were recruited amongst people accessible to the researcher, some of whom were personally known to the author. This method of recruitment may be argued to have limited the diversity of the sample and introduced possible under-representation. The sample consisted predominantly of college-educated /professional people. Therefore, the findings may display differences if the research was conducted with participants from other socio-demographic groups. However, it could equally be argued that such convenience sampling is a defining characteristic of qualitative research.

During the service encounter, SSTs may be used in conjunction with other information technologies, such as email, language translation software, online maps, TV streaming and personal social media. On isolated occasions, participants may also discuss technologies used by the employees while resolving an SST failure. The discussion of all of these other information technologies used while completing an SST encounter suggest that customers view SSTs as part of their overall technology usage in their lives. This research focused on SSTs in order to preserve conceptual integrity but SST usage may not be researched in vacuum from the usage of other technologies.

Newer and more sophisticated SST options are introduced in services on a daily basis; for instance the tourism context is starting to embrace augmented reality applications and wearable technology (Accenture, 2015). The technological innovation in services introduces changes to customer experiences (Ostrom et al., 2010) which this research
did not track over time. A longitudinal study may provide trends and understanding of the changing nature of customer SST experiences. Therefore, the SSTs discussed at the time of data collection may have evolved and some changes may be observed in customer usage. The conceptual model introduced in the present study may require frequent re-evaluation and re-conceptualisation to reflect the constant breakthroughs in customer service technology.

7.9 Conclusion

This chapter has examined the conclusions from the present study, and their significance for SST research and managerial practice. The proposed three-stage conceptual model of SST usage illustrates the complexities and contradictory nature of customer motivations, experiences and roles in SSTs. This model contributes to a current gap in the SST literature, that of how customers use and experience SSTs (Barrutia and Gilsanz, 2013; Hilton et al., 2013). This is a significant step in understanding and facilitating sustainable customer empowerment in an age of IT permeation in services. The chapter also discusses directions for future research and the limitations of the present study.

The present study illustrates that SST usage challenges the customer-centricity concept of marketing, because customers do not always use SSTs when it suits them. They may use SSTs to facilitate the service provider or to assist other customers on behalf of the company. Therefore, a value network approach with the SST user as a central co-producer, but not a central consumer, is proposed to better facilitate the understanding of SST usage. This type of value network is different to the actor-to-actor balanced-centricity network idea in the literature which promotes recognition of the customer as a business partner in a system of service-for-service exchange (Vargo and Lusch, 2011;
Gummesson, 2008). Three arguments have been analysed in this chapter which support the value network perspective in SST usage.

Firstly, although customer SST usage motivations have received some research attention (Collier and Barnes, 2015), the forced usage and ethical motivations are a clear contribution of the present study. These motivations suggest that customers do not use SSTs simply to achieve direct service benefits for themselves, such as convenience, control, enjoyment and cheaper price (Meuter et al., 2005). The ethical motivations highlighted in the study reveal that customers may use SSTs to benefit other customers and the environment. Furthermore, customers may use SSTs to suit the service provider, and co-produce a service (for example, assisting other customers) which they do not consume themselves.

Secondly, the present study contributes understanding of how customers determine the SST value-in-experience. The findings suggest that value is dynamically determined by SST user perceptions of their interactions with other customers, companies and society in a network of stakeholders. Four groups of value-in-experience determinants have been interpreted by the author, including perceptions of service outcomes, customer skills and responsibilities, SST process, and social context. These perceptions reveal that SST users consider themselves to be responsible co-producers of the service, which also occurs in a social context. The perception of responsibility, which was self-imposed at times, demonstrates the SST users’ recognition that they are central co-producers of the service. This is a surprising finding taking into account that SSTs are ultimately introduced by the service provider and the customer is rarely given much latitude in the service design stage.
Thirdly, the analysis of the findings suggests that the SST user is always a central co-producer of the service, but value may be consumed by various stakeholders including other customers, society and service companies, but not necessarily always the customer using the SST. This suggests that the SST user is at the centre of production, but is not always at the centre of consumption, as seen in the seven distinct roles that customers undertake in SSTs. Customers displayed awareness that at times, SST usage may not be on their terms and may represent value for other stakeholders in the value network. Even so, customers engage in SST usage when they feel that they are recognised as a contributor to a worthwhile service operation, which improves the overall wellbeing of society. This again highlights the value network perspective of customers in SST usage.

The value network view of SST usage reveals that established conceptions in the SST literature may actually be misconceptions. Much SST research suggests that if customers do not have a positive attitude towards SSTs (for example, TAM based research), or they are not satisfied with SST usage (Wang, 2012), they will not continue to use them. The findings from this research suggest that customers may use SSTs despite their negative attitudes and perceptions, as evident in the forced usage motivation and the enforced worker role. The author posits that the conceptual model of SST usage (Table 7.3) in the present study develops SST adoption models as it illustrates the controversial and complex nature of SST usage where the customer is a central co-producer in a value network. An understanding of the customer perspective through an S-D Logic lens provides new types of motivations (forced usage, empathy and eco-friendliness), and a conceptualisation of the elements of user experiences and roles in SSTs. This may facilitate the crafting of managerial strategies which can enhance the customer value-in-experience. The author envisages that the conceptual model of SST usage will facilitate debate and motivate further research; thus
contributing towards improved SST implementation in tourism and the wider services sector.

This perspective also reveals that customers view SSTs as a vehicle for both positive and negative change in society. SSTs may create a divide in society because not all people are willing and able to use them and realise beneficial service outcomes. Furthermore, SSTs introduce the necessity to restructure the work force which may represent both a threat and an opportunity. SSTs may propel positive change through the implementation of more efficient service systems which unite users and service providers in saving natural resources and improving the quality of life for people. In addition to the environmental/ecological context, SSTs have the potential to create a more accessible service, such as for people who may not be able to drive to a shop or who may not understand the language in a foreign country. Therefore, this study of the customer perspective challenges SST research to expand its focus on the immediate outcomes and benefits for the user, and to examine the outcomes of SST usage from both an economic and a societal perspective.
References


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Appendix A: E-mail correspondence with Virtualtourist.com, online travel forum

The e-mail was re-sent on July, 19, 2012 to press@virtualtourist.com.

Fri, Jul 6, 2012 at 9:53 AM

Petranka Kelly <d08115925@mydit.ie>

To: feedback@virtualtourist.com

Dear Sir/Madam,

I am a PhD researcher at the Dublin Institute of Technology, Dublin, Ireland. I am researching customer experiences with self-service technologies in the travel and tourism industry, e.g. online reservation websites, airport check-in kiosks, tag-a-bag facilities and mobile phone check-in apps. I have presented a research paper at the Tourism and Hospitality Research in Ireland Conference (THRIC) in 2010, and won 2nd prize for the best PhD proposal at the International Federation for Information Technology and Travel and Tourism (IFITT), ENTER International Conference, Austria in 2011. For more information on my PhD research, the following link provides free access to one of my publications: [http://arrow.dit.ie/tfschmtcon/1/](http://arrow.dit.ie/tfschmtcon/1/). I have recently submitted a research paper for consideration to an international peer-reviewed journal, *Journal of Service Research*.

Your website attracted my attention as being one of the largest online tourism and travel communities with over 1.2 million active members. I read your Privacy Statement and User Agreement carefully. I am seeking clarification of the User Agreement as to whether I may conduct research via my own Virtualtourist.com page, and include select excerpts from this research in my PhD thesis, and associated peer-reviewed journal articles. Please find attached a copy of a posting that I would like to use on my Virtualtourist.com page which establishes my credentials as a researcher, offers an explanation of my research, and invites Virtualtourist.com members to participate in my research. Essentially, I would like to generate a discussion on my page about members’ experiences with self-service technologies in the travel and tourism industry, e.g. what self-service technologies do you use for travel and tourism purposes? What has been your experience of using self-service technologies? My Virtualtourist.com profile will clearly state that I am a...
Dear members,

PhD researcher and I will inform all members who decide to post a comment as to how this information will be used.

My intention is that interested members would share with me their thoughts and experiences of self-service technologies in travel and tourism. Any responses that I used in my PhD thesis or associated peer-reviewed journal articles would be guaranteed anonymity, in that their names and any identifying personal characteristics (e.g. name/occupation) would be changed for the purposes of confidentiality. I would also be fully prepared to clearly indicate in my PhD, and any associated peer-reviewed journal articles, that any research excerpts used were sourced from, and courtesy of, my forum on my Virtualtourist.com page.

My PhD supervisor at the Dublin Institute of Technology is Dr Jennifer Lawlor who may be contacted at jennifer.lawlor@dit.ie should you wish further information.

I look forward to hearing from you at your convenience.

Regards,

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Virtualtourist post.doc
25K
I share your interest for travel, and also the interest to research it!

I am a PhD student at the Dublin Institute of Technology, Dublin, Ireland. As part of my PhD research, I have undertaken to explore customer experiences with self-service technology in tourism and travel services. The academic literature on these technologies has tended to concentrate on the company perspective to date, more so than the consumer perspective. To this end, I am interested in learning about the uses, experiences and attitudes that you, as a seasoned tourist, may wish to share with me, with regard to travel and tourism technologies.

I would like to invite you to give me your experiences of using self-service technologies for tourism purposes, such as **online reservation websites; online flight search, purchasing or check-in; online shopping; usage of kiosks and interactive interfaces; online banking; telephone menus, retail check-outs; mobile phone applications for GPS or code scanning.** If you are interested, please feel free to post me your thoughts on any of the following areas:

- What self-service technologies do you use related to your travel, i.e. website, kiosk, smart phone app?
- What has been your experience of using those self-service technologies? Has this experience been positive? Has it been negative? Who did they benefit?
- Have you ever had to seek help to use a self-service technology? Perhaps from other customers, company employees, friends?
- Have you ever had to help others, i.e. family members, friends, colleagues, other customers?

You can leave a comment with any self-service technology experiences, related to travel and tourism, that you would like to share. I would plan to use some of the quotes/excerpts of your postings in my PhD thesis and I want to assure you that your postings will be given anonymity in that I will change your name and any personal identifying characteristics (e.g. occupation).

Looking forward to hearing from you,

Regards,

Petranka Kelly
Appendix B: Stage One Interview Theme Sheet

Good morning/afternoon, my name is Petranka Kelly. I am a researcher at the Dublin Institute of Technology. I am currently conducting research on customer use of self-service technologies. My research is looking at customer views on technology in services. Would you like to help the research by answering a couple of questions for me? It takes about 5-10min at most and it is anonymous and confidential. You will not need to write anything as I can record for you. If you would allow me, I can tape record your answers, and I can transcribe them after. The recordings will not be played in public.

Yes/no

SSTs are technologies which allow you to get a service yourself, without the help of a server. For example, banking ATMs, websites for booking online, search engines for price comparison, online check-in for your flight, selling on eBay etc.

1. For this trip what SSTs did you use?
2. What other SSTs are you a user of?
3. How did you feel about using those SSTs?
4. Can you think of an example, or a particularly memorable experience (positive or negative) with an SST? Tell me about it.

Demographic Information

1. Gender
   male/female

2. In which of the following groups does your age fall?
   18-24   25-34   35-44   45-54   55-64   65 +

3. Educational level achieved (please, indicate the highest level achieved to date)
   primary education   high school   bachelor degree   postgraduate degree

4. Nationality

Thank the participant.
Appendix C: Stage Two Interview Theme Sheet

I am a PhD student at Dublin Institute of Technology, Cathal Brugha Street, Dublin 1. As part of my PhD research, I have undertaken to explore customer experiences with technology in tourism and travel services. I am currently recruiting volunteers to participate in an interview (about an hour). The requirement for participation is that you have some experience with using self-service technologies for tourism purposes, such as online reservation websites; online flight search, purchasing or check-in; online shopping; usage of kiosks and interactive interfaces; online banking; retail check-outs; mobile phone applications for GPS or code scanning. If you would like to share your experiences with self-service technologies and help me with my research, I would kindly invite you to take part. If you would allow me, I would like to tape record your answers. The tapes will not be played in public and confidentiality and anonymity would be observed in storage and publications.

Would you please complete the Consent form?

Questions

1. Setting the scene. Tourism SST usage
   Can we focus now on your usage of SSTs for tourism and travel purposes?
   For your most recent holiday, can you think of the SSTs that you used to organise the trip, during your stay at the destination, and afterwards?
   Can you think of examples of SST usage from other trips?
   How did you get on? (e.g. easy, quick, convenient)
   Did anything ever go wrong? What did you do?

2. Motivation for SST usage
   You mentioned you used (the self check-in, the website to book)… Why did you use this?
   What were your motives or reasons for using the SST(s) just mentioned?
   Did you choose to use X/were you encouraged to (e.g. online discount) / were you required to use X?

3. Multi-channel usage of tourism SSTs
   You probably had more than one option to get the particular tourism services that you described. Can you lead me through your decision making process. For example, you may have checked-in using a kiosk at the airport, the internet at home, or on your mobile.
   You said you booked online with X hotel. Can you tell me more about this choice? Is it this brand of hotels that you prefer, or did you find it via a search engine?
   Did the service company, in any way, give you guidance on which channel may be best for you? If so, can you elaborate?
What are your views on the usage of mobile devices as a channel to obtain tourism services?
You mentioned that you tried to book hotel X but the booking procedure was complicated so you booked hotel Y instead? Can you tell me more about this? Did consider booking hotel X over the phone, or emailing them?

4. Customer roles and learning
You identified earlier that you used an SST. Can you reflect on your actions and responsibilities?
Were you clear in what you had to do? How did you find the instructions on the interface?
Did you feel you had enough knowledge/information to do it?
Were you / Would you be knowledgeable/able to solve any problem that arose/may arise?
Have you ever found yourself helping or instructing (a) other customers and (b) family members/friends/colleagues in SST usage?
Have you ever been helped yourself by (a) other customers; (b) employees; (c) family/friends/colleagues?

5. Experiences
How did you feel about this?
Why do companies require customers to use SSTs? What’s in it for them?
How do you feel about the employee or ‘middleman’ being removed from the picture?
Would you say that SSTs are being forced on you? E.g. should airlines have employees on the ground to assist passengers in self check-in or is SST X self-explanatory/user-friendly?
Can technology replace the employee?

6. Projective sentence completion
a) A person who used a smart phone to check-in is …
b) The person who booked at the travel agent wanted to…
c) Some people book a hotel online and will then ring to check their reservation has been received because…
d) Self-service technologies discriminate against certain people, such as…
e) The person in front of me using the train ticketing kiosk was taking very long, so I…
f) Some passengers/tourists choose to by-pass self check-in, and instead go straight to a member of staff at the desk because…
g) Smartphones are for…
h) If I was standing in a queue behind a passenger having difficulties with a self-service technology, I would…
i) People who don’t use the internet to book their flight/accommodation are…

7. Demographic information
Age
Gender
Education
Professional occupation
Thank the participant.
Appendix D: Email correspondence with Mr Mark Evenden, Manager at Dublin Airport Marketing Intelligence Department

From: Petranka Kelly [mailto:petranka.kelly@mydit.ie]
Sent: 12 April 2011 16:51
To: Mark Evenden
Subject: DIT PhD student

Dear Mark,

First of all thank you very much for a very informative lecture in DIT last Thursday. I am a PhD student and my area of research is self-service technologies in the travel and tourism industry. I was talking to you about helping me with directions how to gain access to the airport in order to do my primary research. You mentioned that the Market Research Department is the place to ask. I was wondering if it is possible to get contact details for someone in this department. I would appreciate your help.

Regards,
Petranka Kelly,
PhD Student
Dublin Institute of Technology
College of Arts and Tourism
Sackville Place
Dublin 1.

tel: +353 1 402 7550
e-mail: petranka.kelly@mydit.ie

This email has been scanned by the MessageLabs Email Security System.
For more information please visit http://www.messagelabs.com/email
Appendix E: Email correspondence with Ms Catherine Abbey, Marketing Research Department at DAA

Subject: RE: PhD survey research
To: Petranka Kelly <petranka.kelly@mydit.ie>
Date: 10/05/11 11:12 AM
From: Catherine Abbey <Catherine.Abbey@daa.ie>

Dear Petranka,

DAA does not allow third parties conduct research at Dublin Airport.

I wish you every success with your studies.

Regards

Catherine
Appendix F: First email to Mr Pat Foley, Operations Manager at Shannon International Airport, seeking access to conduct research at Shannon Airport

From: Petranka Kelly
To: Pat Foley
Subject: PhD researcher from DIT

Dear Mr. Foley,

My name is Petranka Kelly and I am a second year PhD student at Dublin Institute of Technology, Cathal Brugha Street, Dublin 1.

My research is in the area of customer participation in self-service technologies (SSTs) in tourism. During the past ten years SSTs have gained widespread application in the banking, retail and airline sectors. Some commonly known examples from the airline industry include online reservation websites, airport check-in kiosks, tag-a-bag facilities and mobile phone check-in apps. My research will be looking into consumer behaviours, perceptions and feelings towards their usage of SSTs in the tourism sector.

As part of the data collection stage of this research I intend to interview/survey passengers about their experiences of SSTs. I would hope to gain permission to undertake those interviews at Shannon Airport, either at the boarding gate, or after the appropriate security checks, or at a nominated area within the airport. My colleague from DIT, Sean T. Ruane, was in touch with you and he informed me that 5 minutes per passenger is what would be feasible research at the airport. To that end, I am looking at short questionnaires rather than interviews. I will be seeking to explore customers/passengers’ feelings and perceptions about their SST usage in general. I will seek consent from all passengers regarding their willingness to participate in my research and do not intend to interfere with their travel experience. All responses will be anonymous and will be treated in strict confidence. My research proposal has gained approval from the DIT ethical committee.

I would be happy to respond to any further queries that you may have about my research and I would be very grateful if you could assist me in gaining access to undertake my research at Shannon Airport.

I look forward to hearing from you at your convenience.

Regards,

Petranka Kelly

PhD Student
Appendix G: Follow-up email to Mr Pat Foley, Operations Manager at Shannon Airport, regarding access to Shannon Airport

From: Petranka Kelly [mailto:petranka.kelly@mydit.ie]
Sent: 14 July 2011 21:10
To: Pat Foley
Subject: PhD research

Dear Mr Foley,

My name is Petranka Kelly and I am a second year PhD student at the Dublin Institute of Technology, Cathal Brugha Street, Dublin 1. I am following up on my previous email of June 8th last.

I am writing to you to seek permission to carry out my research at Shannon Airport. My PhD research relates to the area of customer participation in self-service technologies (SSTs) in tourism, e.g. online reservation websites, airport check-in kiosks, tag-a-bag facilities and mobile phone check-in apps.

As part of the data collection stage of this research I would like, with your permission, to survey passengers about their experiences of SSTs, essentially asking broad questions such as:

What SSTs have you used as part of your journey today? (e.g. online check-in, printing out your boarding pass)

Why did you use these? (e.g. I was required to do so, it was cheaper to do so etc.)

How did you find the experience? (e.g. convenient, complicated etc.)

I would hope to gain permission to undertake those interviews at Shannon Airport, after the appropriate security checks, either at the boarding gate, or at a nominated area within the airport. Ideally, I would approach awaiting passengers at the waiting area lounge after security checks. I envisage that at this stage passengers would be more relaxed and willing to talk to me. The survey would take approximately 5 minutes.

I would hope to carry out my research over one week.

The answers will be tape recorded or I will take notes, depending on passenger preferences. I will seek consent from all passengers regarding their willingness to participate in my research and do not intend to interfere with their travel experience. All responses will be anonymous and will be treated in strict confidence.

I would be happy to respond to any further queries that you may have about my research and I would be very grateful if you could assist me in gaining access to undertake my research at Shannon Airport. My PhD supervisor at the Dublin Institute of Technology is Dr Jennifer Lawlor who may be contacted at jennifer.lawlor@dit.ie should you wish further information.
I look forward to hearing from you at your convenience.

Regards,
Petranka Kelly
PhD Student
College of Arts and Tourism
Dublin Institute of Technology
Cathal Brugha Street, Dublin 1.
Tel: +353 1 402 7550
Email: petranka.kelly@mydit.ie
Website: www.dit.ie

This email has been scanned by the MessageLabs Email Security System.
For more information please visit http://www.messagelabs.com/email
Appendix H: Email correspondence with Mr Pat Foley, Operations Manager at Shannon Airport, providing personal details of the researcher for security purposes

From: Petranka Kelly  
To: Pat Foley  
Subject: RE: PhD research

Dear Mr Foley,

This is fantastic! I thank you very much for accommodating my research. My details are:

XXXXX

How would you like me to send you a photo of me, i.e. as a digital file or a printed passport photo? What is the address?
I will email you to organise a meeting towards the end of this month.
Looking forward to meeting you.

Regards,

Petranka Kelly
Appendix I: Email correspondence with Mr Pat Foley, Operations Manager at Shannon Airport, regarding finalising the access arrangements for conducting research at the airport on August 8th, 2011

From: Petranka Kelly [mailto:petranka.kelly@mydit.ie]
Sent: 02 August 2011 18:29
To: Pat Foley
Subject: RE: PhD research

Dear Mr Foley,

Thank you for your continued assistance regarding my PhD research.

I am writing to you following our correspondence regarding my research with passengers at Shannon Airport which is to take place from August 8th.

I will be happy to meet with you or telephone you at your convenience to discuss details about access.

The following are the broad themes that I would like to explore with potential respondents at the airport (max. 5 minutes per passenger).

1. The passenger's use of self-service technologies (SSTs), e.g. self-check-in, printing out of boarding pass, bank ATM, phone apps etc.

2. The passenger's reasons/motives for use of SSTs, e.g. it saves time, offers convenience, e.g. 'company requires me to use it'.

3. Experiences and consequences, e.g. how did passenger find use of SST, passenger’s views re. rationale for SST

I intend to approach passengers who are inactive, vis-a-vis their flight (e.g. waiting in a queue/waiting to board a flight) as opposed to approaching passengers who are shopping/checking-in.

This research exercise will not inconvenience or discommode airport staff or passengers in any way.

Many thanks again,

Petranka Kelly
Appendix J: Invitation to Participate in In-Depth Interviews

Dear Participant,

I am a PhD student at the Dublin Institute of Technology, Cathal Brugha Street, Dublin 1. As part of my PhD research I have undertaken to explore customer experiences with technology in tourism services.

I am currently recruiting volunteers to participate in an interview (about an hour). The requirement for participation is that you have some experience with using self-service technologies for travel and tourism purposes, such as online reservation websites; online flight search, purchasing or check-in; online shopping; usage of kiosks and interactive interfaces; online banking; retail check-outs; mobile phone applications for GPS or code scanning. If you would like to share your experiences with self-service technologies and help me with my research, I would kindly invite you to take part.

Your Participation:

If you decide to take part in this research, your participation will involve:

· An interview (about an hour) which will be conducted in person or via an online chat facility, depending on your preference
· The interview will be audio taped
· Your participation is voluntary and there is no compensation offered

Publication:

The outcomes from this study may result in future publications in academic journals, book chapters and conference papers.

Confidentiality and Anonymity:

The researcher undertakes to preserve your anonymity and protect your personal information. The following procedures will be observed to ensure your identity is protected:

· The transcripts from interviews will be kept separate from the key linking personal information to a transcript. The interview transcripts will be locked in my DIT office locker, while the key of codes will be locked in my personal safe in my home. The digital recordings of the interviews will be kept in password protected files.

· In the body of my dissertation and any publications, your name will not be revealed. Instead a code or a pseudonym will be assigned to disguise your identity.

· If the participant, in the course of the interview, mentions names, locations or context detail, which reveals their identity, the researcher will take care that when transcribing the data this information is not presented in a way that may break the
anonymity promise. This may include using pseudonyms or deleting identity revealing details which do not carry value for the research.

If you would like to participate in this research, or know somebody who would, please contact me by return mail at petranka.kelly@mydit.ie so we can arrange a suitable for you time and location for the interview.

Regards,
Petranka Kelly
PhD Student
Dublin Institute of Technology
College of Arts and Tourism
Cathal Brugha Street
Dublin 1.
Tel: +353 1 402 7550
Appendix K: Demographic Characteristics of Stage One Sample

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<th>Gender</th>
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<th>Age no</th>
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<th>Education</th>
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Source: The Author.
### Appendix L: Demographic Characteristics of Stage Two Sample

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<td>Masters</td>
<td>PhD candidate</td>
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<td>Bachelor</td>
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<tr>
<td>Int.24.2.F</td>
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<td>Masters</td>
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<tr>
<td>Int.32.2.F</td>
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<td>F</td>
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<td>Full-time student</td>
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</tbody>
</table>

Source: The Author.
Appendix M: Consent Form

<table>
<thead>
<tr>
<th>Researcher’s Name:</th>
<th>Petranka Kelly</th>
</tr>
</thead>
<tbody>
<tr>
<td>(use block capitals)</td>
<td>Title: PhD Student</td>
</tr>
<tr>
<td>Faculty/School/Department:</td>
<td>Dublin Institute of Technology, College of Arts and Tourism</td>
</tr>
<tr>
<td>Title of Study:</td>
<td>Customer Usage of Self-Service Technologies</td>
</tr>
</tbody>
</table>

**To be completed by the:**

*subject/patient/volunteer/informant/interviewee/parent/guardian (delete as necessary)*

<table>
<thead>
<tr>
<th>Question</th>
<th>YES/NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Have you been fully informed/read the information sheet about this study?</td>
<td></td>
</tr>
<tr>
<td>3.2 Have you had an opportunity to ask questions and discuss this study?</td>
<td></td>
</tr>
<tr>
<td>3.3 Have you received satisfactory answers to all your questions?</td>
<td></td>
</tr>
<tr>
<td>3.4 Have you received enough information about this study and any associated health and safety implications if applicable?</td>
<td></td>
</tr>
<tr>
<td>3.5 Do you understand that you are free to withdraw from this study?</td>
<td></td>
</tr>
<tr>
<td>• at any time</td>
<td></td>
</tr>
<tr>
<td>• without giving a reason for withdrawing</td>
<td></td>
</tr>
<tr>
<td>• without affecting your future relationship with the Institute</td>
<td></td>
</tr>
<tr>
<td>3.6 Do you agree to take part in this study the results of which are likely to be published?</td>
<td>YES/NO</td>
</tr>
<tr>
<td>3.7 Have you been informed that this consent form shall be kept in the confidence of the researcher?</td>
<td>YES/NO</td>
</tr>
</tbody>
</table>

Signed__________________________ Date__________________

Name in Block Letters __________________________________________________________

Signature of Researcher ___________________________ Date__________________
Please note:

For persons under 18 years of age the consent of the parents or guardians must be obtained or an explanation given to the Research Ethics Committee and the assent of the child/young person should be obtained to the degree possible dependent on the age of the child/young person. Please complete the Consent Form (section 4) for Research Involving ‘Less Powerful’ Subjects or Those Under 18 Yrs.

In some studies, witnessed consent may be appropriate.

The researcher concerned must sign the consent form after having explained the project to the subject and after having answered his/her questions about the project.
Appendix N: Online Informed Consent Form

Dublin Institute of Technology, College of Arts and Tourism
Research Title: Consumer Usage of Self-Service Technologies
Principle Researcher: Petranka Kelly, PhD Student
College of Arts and Tourism,
Dublin Institute of Technology,
Cathal Brugha Street,
Dublin 1,
Tel: +353 1 402 7550
Email: petranka.kelly@mydit.ie
Web: www.dit.ie
Academic Supervisors: Dr Jennifer Lawlor and Dr Michael Mulvey

You are asked to be a participant in a PhD research study.

Purpose:
The purpose of this research is to explore consumers’ views on self-service technologies, which have become popular in many service industries such as banking, retail, financial services, airlines and travel. Successful implementation of these technologies can bring numerous advantages to consumers and service providers by reducing the price of services while providing better quality and more convenience.

Your Participation:
If you decide to take part in this research, your participation will involve:

• Agreeing to participate in an interview (about an hour) which will be conducted in person or via an online chat facility, depending on your preference
• The interview will be audio taped
• Your participation is voluntary and there is no compensation offered

Publication:
The outcomes from this study may result in future publications in academic journals, book chapters and conference papers.

Confidentiality and Anonymity:
The researcher undertakes to preserve your anonymity and protect your personal information. The following procedures will be observed to ensure your identity is protected:

• The transcripts from interviews will be kept separate from the key linking personal information to a transcript. The interview transcripts will be locked in my DIT office locker, while the key of codes will be locked in my personal safe in my home. The digital recordings of the interviews will be kept in password protected files.
• In the body of my dissertation and any publications, your name will not be revealed. Instead a code or a pseudonym will be assigned to disguise your identity.
• If the participant, in the course of the interview, mentions names, locations or context detail, which reveals the identity, the researcher will take care that when transcribing the data this information is not presented in a way that may break the anonymity promise. This may include using pseudonyms or deleting identity revealing details which do not carry value for the research.

Participant Rights:
1. You are under no obligation to participate in this research
2. You are free to withdraw from this study at any time, without giving a reason and without this affecting your future relationship with the Institute.
3. You may ask the principle researcher questions about the research
Appendix O: Declaration of Research Ethics and/or Assessment of Risk

All research and scholarship proposals, whether funded or not by internal or external funds, must submit a RESEARCH ETHICS/ASSESSMENT OF RISK FORM to the DIT Research Ethics Committee.

This is a self-declaration process. The researcher is asked to formally identify any possible ethical issues or risks that might arise in the course of the work, and to sign the documentation.

Please refer to the Guiding Principles and Procedures indicated on the DIT Research Ethics website prior to completing this form:

- http://www.dit.ie/DIT/graduate/ethics/index.html

PLEASE NOTE

- You are requested to attach a copy of your research application to this form.
- The RESEARCH ETHICS/ASSESSMENT OF RISK FORM must be signed by the applicant(s)
- Ethical Approval must be granted prior to start of any research/scholarly activity or prior to funding being released for the project, as appropriate.
- No postgraduate research student will normally be registered until the proposal is cleared by the DIT Research Ethics Committee.

Completed forms should be returned to: Research Ethics Committee, c/o Office of Graduate Studies, DIT, 143-149 Lower Rathmines Road, Dublin 6.

Title of the proposed project:
Factors Affecting Consumer's Predisposition to Adopt Self-Service Technologies

Applicant Details (Use Block Capitals): D08115925

<table>
<thead>
<tr>
<th>Surname: Kelly</th>
<th>Forename: Petranka</th>
<th>Title: Ms</th>
</tr>
</thead>
</table>

Present appointment: PhD Student

School/Department/Centre: School of Hospitality Management and Tourism
### Faculty: Tourism and Food

Work Tel: **7550**  
Fax: **N/A**  
E-mail: petranka.kelly@student.dit.ie

<table>
<thead>
<tr>
<th>Other departments/organisations/individuals involved:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
</tr>
<tr>
<td>b) N/A</td>
</tr>
<tr>
<td>c)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source of Funding:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ABBEST scholarship</strong></td>
</tr>
</tbody>
</table>

| Has the current research project already received approval from another research ethics committee? | **no** |
|--------------------------------------------------------------------------------------------------|

If so, please enclose relevant information and documentation

### Generic Projects:

Researchers may receive approval for a cluster of similar research activity by approval of a **generic protocol** to cover repetitive methodologies or activities. A **generic protocol** should comprise a covering letter setting out the circumstances and rationale for generic approval, outlining the procedures to be followed in all such projects, in addition to completion of the appropriate appendices.

If this project is part of a cluster of research with similar methodology, please tick here and submit a generic protocol to cover all such projects. □
Insurance

Normally, DIT insurance covers standard research activity, including fieldtrips. Are you aware of any unusual or exceptional risks or insurance issues to which DIT’s insurance company should be alerted? If so, please list the issues:

Please note that no contract should be entered into for clinical/medical (including drug testing) or surgical trials/tests on any human subject until written confirmation has been received from the DIT’s insurers that the relevant insurance cover is in place.

Are you or any members of the research team a member of any organisation that provides professional indemnity insurance?  

**no**

Name of the organisation:

Please provide written confirmation of the terms of insurance cover.

Professional Code of Conduct

Please reference, if appropriate, the Code of Ethical Conduct produced by your relevant professional organization(s), which also informs your research.

**Please note that:** Where those requirements conflict with DIT requirements, the latter will normally be followed. In all such circumstances, please contact the Office of Research Ethics for clarification.

All researchers must confirm with the Data Protection Act 1988. Please consult the DIT Data Protection Officer for advice.
## IDENTIFICATION OF ETHICAL ISSUES AND/OR RISK

Do any of the following ethical issues or risks apply in your research? If so, tick all box(es) which apply and complete the relevant Appendix, which can be downloaded from [http://www.dit.ie/DIT/graduate/ethics/index.html](http://www.dit.ie/DIT/graduate/ethics/index.html)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Does your research involve…</th>
</tr>
</thead>
<tbody>
<tr>
<td>√</td>
<td></td>
<td>Impact on human subject(s) and/or the researcher(s) [Appendix 1]</td>
</tr>
<tr>
<td>√</td>
<td></td>
<td>Consent and advice form given to subjects prior to their participation in the research [Appendix 2]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consent form for research involving ‘less powerful’ subjects or those under 18 years [Appendix 3]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conflict of interest [Appendix 4]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drugs and Medical Devices [Appendix 5]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ionising Radiation [Appendix 6]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neonatal Material [Appendix 7]</td>
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<td>Animal Welfare [Appendix 8]</td>
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<td>General Risk Assessment [Appendix 9]</td>
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<td>Hazardous Chemical Risk Assessment [Appendix 10]</td>
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<td></td>
<td></td>
<td>Biological Agents Risk Assessment [Appendix 11]</td>
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<td></td>
<td></td>
<td>Work involving Genetically Modified Organisms Risk Assessment [Appendix 12]</td>
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<tr>
<td></td>
<td></td>
<td>Field Work Risk Assessment [Appendix 13]</td>
</tr>
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</table>

If other risk and/or ethical issues are identified please provide a written submission which outlines the issues and the manner in which they are being addressed.

### Please tick the appropriate box below

- [ ] No, there are no ethical issues and/or risks involved in your research project, please tick here, and sign the declaration on page 5.

- √ Yes, there are ethical issues and/or risks involved in your research, please tick here and
complete the appropriate forms identified above.

In accordance with the Principles of the Declaration of Helsinki and DIT Principles and Procedures, I declare that the information provided in this form is true to the best of my knowledge and judgement.

I will advise the DIT Research Ethics Committee of any adverse or unforeseen circumstances or changes in the research which might concern or affect any ethical issues or risks, including if the project fails to start or is abandoned.

Signature of applicant 1: __Petranka Kelly__________________________

Signature of applicant 2: ___________________________________________

Signature of applicant 3: ___________________________________________

(An electronic signature is permissible)
Checklist Please ensure the following, if appropriate, are attached:

<table>
<thead>
<tr>
<th>Documents to be attached</th>
<th>Tick if attached</th>
<th>Tick if not appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Proposal</td>
<td>✓</td>
<td></td>
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<tr>
<td>Letters (to subjects, parents/guardians, GPs, etc)</td>
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<td>✓</td>
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<tr>
<td>Questionnaire(s)</td>
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<td>✓</td>
</tr>
<tr>
<td>Advertisement/Poster</td>
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<td>✓</td>
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<tr>
<td>Ethical clearance from other ethical research</td>
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<td>committees</td>
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<td></td>
</tr>
<tr>
<td>Copy of signed agreement of professional indemnity</td>
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<td>✓</td>
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<tr>
<td>Other (please specify)</td>
<td></td>
<td>✓</td>
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</table>
Appendix P: Coding Stage One Short Qualitative Interviews
Source: The Author.

Customer Roles

- Convenience seeker
- Motivated worker
- Technological sweeper
- Judge
- Enorced worker
- Unskilled worker
- Assistance provider

Feelings
- Frustration
- Anger
- Anxiety
- Embarrassment
- Benevolence
- Accomplishment
- Lack of Control
- Supportiveness

Perceptions
- Better than alternative
- Unsuitable for service
- Discrimination
- Manipulation
- Social tension

Motivations
- Environment concerns
- Control
- Enjoyment
- Empathy
- Savings
- Forced Usage

Rationale for Usage
- Environment concerns
- Convenience
- Control
- Enjoyment
- Empathy
- Savings
- Forced Usage

Encounter Actions
- Unskilled worker
- Assistance provider
- Service Failure Actions
- Interact with competitor SST
- No action
- Interact with customers
- Interact with employees
- Interact with multiple SSTs
- Interact with difficulty
- Interact with ease SST
- Co-operate

Co-operate
- Provide management
- Interact with provider
- Fun
- Cheaper price
- Independence
- Savings
- Interact with multiple SSTs
- Discriminaltion
- Fairness
- Emotions
- Emergency
- Equipment
- Environment concerns
- Discrimination
- Manipulation
- Social tension
- Environment concerns
- Convenience
- Control
- Enjoyment
- Empathy
- Savings
- Forced Usage

Self-recovery
- Unskilled worker
- Assistance provider
- Service Failure Actions
- Interact with competitor SST
- No action
- Interact with customers
- Interact with employees
- Interact with multiple SSTs
- Interact with difficulty
- Interact with ease SST
- Co-operate

Co-operate
- Provide management
- Interact with provider
- Fun
- Cheaper price
- Independence
- Savings
- Interact with multiple SSTs
- Discriminaltion
- Fairness
- Emotions
- Emergency
- Equipment
- Environment concerns
- Discrimination
- Manipulation
- Social tension
- Environment concerns
- Convenience
- Control
- Enjoyment
- Empathy
- Savings
- Forced Usage
Appendix Q: Coding Matrix for Stage Two In-depth Interviews

<table>
<thead>
<tr>
<th>Participant Code</th>
<th>SST Encounter Roles</th>
<th>Service Failure Roles</th>
<th>Motivations</th>
<th>Social Experiences</th>
<th>Value Enhancing Experiences</th>
<th>Value Destroying Experiences</th>
<th>Customer Responsibilities</th>
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</thead>
<tbody>
<tr>
<td>R1 – convenience seeker</td>
<td>R1</td>
<td>R1</td>
<td>M1 – convenience</td>
<td>SE – p. 3,6</td>
<td>EE – p.5,12</td>
<td>DE – p.8,4</td>
<td>CR – p.11,12,13</td>
</tr>
<tr>
<td>R2 – motivated worker</td>
<td>R2</td>
<td>R2</td>
<td>M2 – control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R3 – technological sweeper</td>
<td>R3</td>
<td>R3</td>
<td>M3 – enjoyment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R4 – judge</td>
<td>R4</td>
<td>R4</td>
<td>M4 – lower price</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5 – forced worker</td>
<td>R5</td>
<td>R5</td>
<td>M5 – eco-friendly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6 – unskilled worker</td>
<td>R6</td>
<td>R6</td>
<td>M6 – forced usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R7 – assistance provider</td>
<td>R7</td>
<td>R7</td>
<td>M7 - empathy</td>
<td>SE – p. 3,6</td>
<td>EE – p.5,12</td>
<td>DE – p.8,4</td>
<td>CR – p.11,12,13</td>
</tr>
</tbody>
</table>

*Source: The Author.*
Appendix R: List of Publications


