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Discovering diversity in marketing practice

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Abstract *Marketing practice varies among firms. However, the prescriptive literature emphasises a universal view of practice, a "one-size-fits-all" view. This paper addresses the issue of explaining diversity in competitive space and over time. Diversity in competitive space reflects the existence of different routes to high performance. Diversity over time reflects some combination of change in the individual firm and change in a population of firms. In the former case, diversity is shaped by organisational change; in the latter by the disbandment and founding of firms in the population. Miles and Snow's typology is taken as a main point of departure in the search for explanation, and ecological and evolutionary concepts are also drawn upon. The paper starts by examining the discussion of diversity in the literature of strategic management and organisation theory, and then finds evidence of an emerging interest in diversity in the domain of marketing. Based on a number of cross-sectional and longitudinal case studies, it proceeds to explore diversity in company marketing practice. How such variety evolves at industry level is then addressed. Finally, a view of industries as business systems with complex adaptive mechanisms, enabling both evolutionary and revolutionary changes in marketing practice, is offered.*

Introduction

It is self-evident that marketing practice varies greatly from firm to firm. It varies in terms of "how much" marketing is conducted and how much emphasis is placed on marketing relative to other managerial activities. The nature of marketing practice itself also varies. In some firms selling is the predominant marketing activity; in others it is marketing research, advertising or channel management. Some firms rely on relationships to underpin marketing practice while others are transactional in orientation. In some firms the delivery of marketing is centred exclusively in a marketing department; in others marketing activity is carried out by a number of departments. What explains this diversity in practice? Why is it that the normative literature generally emphasises a universal view of marketing practice – "one size should fit all"? If diversity is a better characterisation of marketing practice than uniformity, surely we need theory to make sense of what might otherwise seem random? If diversity is normal, then one would expect to see new patterns in marketing practice evolve as selective forces act on the diversity and as forces of retention institutionalise the selected practices.

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This paper addresses the issue of diversity in marketing practice in competitive space and time. Diversity in competitive space arises when firms in a single competitive arena employ a variety of marketing practices to good effect – there is demonstrably no "one best way". Diversity over time results when firms adopt new marketing practices or new mixes of marketing practice as they co-evolve with their environment – practice is learned, emergent, and dynamic and/or, when existing firms are disbanded and replaced by new firms with new marketing practices, practice is selected and retained in an evolutionary process.

A first point of departure is found in the Miles *et al.* (1993) and Miles and Snow (1986) proposition that diversity in strategy and structure is normal in any industry, that it is "good" for an industry and furthermore that various configurations of strategy and structure may be equally effective in producing high performance. Their typology indicates that there are several routes to high performance. For an industry to be characterised by self-renewal and extended profitability, they argue, it needs highly efficient firms to harvest mature technologies and markets as they commoditise. It needs entrepreneurial firms to develop new forms of demand, to invent and innovate new technologies, to develop new products and to construct new relationships with customers. Furthermore, it needs hybrid firms that can generate surpluses from their efficiency in mature markets, while also investing in the breakthroughs of their entrepreneurial colleagues in the industry. In their argument, it is this diversity in roles and practice that propels the whole industry along a path of development and adequate returns. By contrast, homogeneity in practice is likely to produce convergence in firm strategies, commoditisation of the industry's products, inadequate returns and bored customers.

However, Miles and Snow's (1978) basic framework is largely static in orientation and limited in its ability to deal with diversity over time. To address this weakness, ideas from population ecology and evolutionary theory are drawn on. Population ecologists' descriptions of strategic types are very similar to Miles and Snow's (1978) but are grounded in a dynamic framework. The basic and robust underlying processes of evolution – variation, selection and retention – offer further help in framing suggestions as to how marketing practice will be shaped and re-shaped over time.

Recent evolutionary interpretations of change in complex adaptive systems (Axelrod and Cohen, 2000) suggest the possibility of explaining radical as well as continuous or incremental change. Complex systems give rise to variety, have mechanisms that select from the available variety and then retain adaptive responses. In an industry context, variety grows from diversity of organisational strategy, structure and process as well as from change in environmental forces such as technology or social norms. Competition and societal forces select from the variety of firm responses, and the whole industry system retains adaptations through institutional mechanisms. Without variety, however, the system converges around a dominant solution and incurs higher and higher risk of system failure in the face of environmental change. System failure may produce revolutionary change, but complex adaptive systems also have a basic characteristic of generating radical system change as a consequence of minor endogenous perturbations in their subsystems.

This paper is structured as follows. It examines the efforts by researchers to make sense of diversity in the literature of strategic management and organisation theory. Evidence of an emerging interest in diversity in marketing is then discussed. Based on a number of cross-sectional and longitudinal case studies, the nature of diversity in company marketing practice is explored. How such variety evolves and is patterned at industry level is then addressed. Finally, a view of industries as business systems with complex adaptive mechanisms, enabling both evolutionary and revolutionary changes in marketing practice, is offered.

Diversity, strategy and structure

The presence of diversity and the search for archetypal order in this diversity is well rehearsed in the strategic management and organisation theory literature. For example, the work on strategic groups (Caves and Porter, 1977; Harrigan, 1985), on generic competitive strategies (Porter, 1980, 1985) and on organisational configuration (Child, 1972; Forte *et al.*, 2000) all attest this endeavour. An influential contribution to this literature is the Miles and Snow (1978) typology of successful firm types:

- defenders;
- prospectors; and
- analysers.

Each type employs a particular configuration of strategy and structure to succeed. Defenders aim to seal off a portion of the total market by offering stable product lines, which compete on the basis of value and/or price. Defenders typically employ functional structures with a high degree of centralisation in decision making and control. Prospectors continuously seek to locate and exploit new opportunities, and are typically first to market with new products and innovations. They are expected to have flexible, autonomous structures that rely on decentralisation in planning and management. Analysers combine the strengths of defenders and prospectors and thus aim to innovate, while simultaneously maintaining a stable base in traditional product markets. Analysers avail themselves of a mixed structure, e.g. matrix, where managers act as integrators between resource groups or programme/market units with the intent of being concurrently efficient and flexible. These authors believe that top management decisions can be categorised into three broad areas and propose that firms need to solve, often simultaneously, three generic problems:

(1) the entrepreneurial, i.e. choice of product-market domain;

(2) the engineering, i.e. transformation of resources into outputs; and

(3) the administrative, i.e. organisational structure (the Appendix adds the "marketing problem").

The Miles and Snow (1978) typology is an elegant, integrated, contingency framework and has been empirically tested in a variety of industry settings (Hambrick, 1983; Weisenfeld-Schenk, 1994; Ghobadian *et al.*, 1998). It has proven easy to operationalise and robust in application. Industry variety is also related to overall industry performance (Miles *et al.*, 1993). An industry's long-run aggregate performance is expected to be higher if variety in strategic configurations and groups is present. Lack of variety is likely to lead to more head-to-head competition, less differentiation, more commoditisation, and less opportunity to learn, directly and indirectly, from the diverse experience of other firms. Thus, a mix of strategic roles is required for industry health and this mix may change as the industry evolves (Johnson, 1997).

To conclude, the nature of diversity and empirical explanations of its association with performance, are developed themes in the strategic management and organisational theory literature. Diversity in competitive space (strategic groups, generic strategies, organisational configuration) and over time is dealt with, although the latter is typically tied to life-cycle hypotheses and is less well developed. The Miles and Snow (1978) typology is essentially static, and it is not clear whether or how firms counter the forces of organisational inertia in order to adjust their generic (defender, prospector, analyser) configuration in response to environmental change (Forte *et al.*, 2000).

Diversity and marketing

The diversity of marketing practice is self-evident, yet exploration of its nature and archetypal order is muted within the marketing academy. A fundamental concept in marketing theory, the product life cycle, highlights diversity. Yet research tends to focus on singular rather than diverse responses. It is mainly marketing strategy theorists who address the issue of variety and its underlying order. Ansoff and Stewart (1967) use the timing of market entry to outline four different generic marketing strategies. Doyle and Hooley (1992) examine firms' short-term profit versus long-term market share to distinguish among strategic orientations and marketing activity. In a similar vein, Brockhoff and Pearson (1992) analyse firms' use of technology and their market aggressiveness to classify strategic orientation. Concepts of strategic groups, generic strategies and generic competitive environments are assimilated into the marketing literature, and many texts (e.g. Doyle, 1998; Murray and O'Driscoll, 1996) devote considerable efforts to describing marketing strategies for different competitive and environmental circumstances. Yet much of this work is prescriptive and lacks empirical foundation.

Explanation of variety in the organisation of marketing has been given even less attention – "organisation seems to be an area of study neglected by marketing academics", notes Spillard (1985, p. v). Issues of organisational structure and behaviour remain a tangential concern for marketing enquiry.

Spillard's (1985) work is one of the few to explore the nexus of organisation and marketing in depth. Others (e.g. Piercy, 1985; Achrol, 1991; Webster, 1992) address the topic but in less detail and usually in the context of implementing marketing strategy. In standard textbooks on marketing, marketing management and marketing strategy, concerns about organisation and its impact on marketing "delivery" receive limited attention. This inattention continues despite profound changes in organisation, the impact of new technology on organisation, and the established importance of comprehending strategy-structure configuration.

Some researchers have used the Miles and Snow framework to examine marketing contingencies. McDaniel and Kolari (1987) study the relationship between the Miles and Snow strategic types and strategic marketing responses. Their investigation reveals, for example, that defenders consistently lack strategic marketing responses centered around the 4Ps, marketing research and new business strategies. McKee *et al.* (1989) examined the differences in the level of marketing tactics among the same strategic types. Support for the proposition that the degree of market orientation varies across different strategic types is provided by Lukas (1999). He finds the degree of market orientation to be highest in prospector firms, second highest in analysers and third highest in defenders.

Slater and Olson (2000) explore the performance implications of matching marketing practices to different strategy types, focusing on sales-force management. The configuration scheme they explore is the Walker and Ruekert (1987) hybrid of the Miles and Snow and Porter archetypes:

- prospectors;
- analysers;
- low-cost defenders; and
- differentiated defenders.

Their evidence suggests that there are different patterns of sales-force management practice that reflect different configurations. For example, firms with a prospector configuration are likely to have relationship-based selling, to internalise the sales function, to have moderate supervision of sales activity, to control by outcome and to emphasise incentive compensation. All of these studies demonstrate that diversity in marketing practice is to be expected, is normatively appropriate, and is characterised by stable patterns or configurations. Put simply, firms in the same competitive space can go about their marketing business in different ways and still prosper.

Discovering diversity in marketing practice across competitive space

In seeking to expand our understanding of this diversity of marketing practice, case research was undertaken on organisations undergoing considerable change (Torres and Murray, 2000). Multiple personal interviews were held with senior executives in Siebel Systems Ireland, Boston Scientific Ireland, and Nortel Networks. Each firm operates in a different industry: enterprise software, medical devices and telecommunications. These industries were chosen for their highly dynamic environments and the pressure to meet increasingly complex and changing competitive conditions. Each firm's general background, its product-market domain, strategic thrust in the context of past and future strategies, organisational structure, approach to marketing practice and key measures of performance were investigated. The senior executives were asked to identify to which configuration they believed their firm belonged. Finally, they were asked to identify their firm's most threatening competitors and to compare and contrast their competitors' strategy-structure-process configuration with their own. A set of propositions about marketing practice was framed, derived from the logic of the Miles and Snow (1978) typology by specifying the associated marketing problem for each configuration. The propositions are set out in the Appendix.

The findings (Torres and Murray, 2000; see also Table I) provide further support for the explanatory value of the Miles and Snow framework and for the contention that there is archetypal order in the diversity of marketing practice. In each industry there were supporting data to show that marketing practice varied with strategic type. Furthermore, the interview discussions revealed that firms actively sought consistency among strategy, structure and process, and that the executives were aware of how their firm's configuration sought a "fit" with the wider market environment. Moreover, if there was poor fit due to major environmental shifts, as exemplified by Nortel Networks, the firm deliberately sought to move from one strategic type to another better suited to the new environment. This provides support for the proposition that configurations of marketing practice also change through time.

Siebel Systems is a prospector, although its organisational structure is a traditional, functional form. A shared managerial philosophy among its top executives, supporting clear decisions and their immediate implementation, allows Siebel to respond rapidly to the market. Siebel's marketing practices may appear to be conventional. However, in comparison to other software firms with which it directly competes (Vantive, Clarify, SAP), Siebel innovatively and proactively develops marketing practices that support its technological competencies in software development. In fact, building the corporate name and image is of paramount importance to capturing new adopters of new technical solutions.

Siebel has thrived in a turbulent environment. An advantage may lie in its strong leadership. Tom Siebel's foresight has given the firm a clear direction: to be the leader in Web-based application software that meets the sales, marketing and customer service information system requirements for organisations of all sizes. Its pursuit of this clear direction, as well as its emphasis on decision making and rapid implementation, has allowed the firm to maintain its focus and move fast. Communication among executives is lucid, responsibility for action is explicitly delegated, and the flat organisational

Table I. Marketing practice and strategic types: summary case research findings

	Siebel systems	Boston scientific	Nortel networks
Entrepreneurial problem	Innovative, Web-based software applications with very short product life cycles. Pressure to innovate successively	Minimally invasive medical devices with spurts and plateaus in product life cycles. Simultaneously penetrate established markets (e.g. stents) and scan for breakthrough products in patient treatment	Was positioned as a supplier of data and telephony network solutions and services. Now is positioning itself as a supplier in telephony, data, wireless and wireline solutions for the Internet
Engineering problem	Effective software-creation process to facilitate new product development applications	High quality manufacturing process to ensure safety and application needs are met	Reducing manufacturing to the high-end products and outsourcing low-end product manufacturing
Administrative problem	Flat, functional organisational structure, with strong executive management for swift decision making and implementation	Functional, hierarchical organisational structure arranged along franchises (e.g. cardiology, vascular), and geographic location	Organisational structure was flat and functional, but is now moving more towards a network form
Marketing problem	Strong emphasis on building corporate brand/reputation to lock in customer loyalty and trust	Emphasis on personal selling in targeting key influencers for decision making (e.g. doctors)	Emphasis was on client management, but now is focused on corporate brand development
Strategic type	Prospector	Analyser	Analyser in transition to prospector

Source: Torres and Murray (2000, p. 15) structure encourages swift implementation through the appropriate function. Furthermore, Siebel's efforts in branding and communicating with customer firms' strategic decision makers has secured its first-mover advantage.

Boston Scientific is an analyser, like its main competitors. The challenge for all analysers is to pursue innovation and efficiency simultaneously. The short life cycles of medical products demand persistence in finding the next technologies, products and processes that will afford future growth and profitability. In addition to scanning for products that offer breakthroughs in patient treatment, Boston Scientific must also manage the pressures of patent and Federal Drug Administration (FDA) approval processes. These encourage Boston Scientific to accelerate its speed to market so as not to lose the potential for exploiting profits from commercialised products. Generally, within the medical device industry it is difficult to capture the element of surprise through product innovation – innovations are well know before commercialisation – hence, it is by being quicker and more efficient that firms principally gain advantage.

The Miles and Snow topology is a static framework and does not address transformations from one configuration archetype to another. It may be hypothesised that some transformations happen more easily, such as from prospector to analyser, whereas movement from a defender to prospector position is more unlikely (Shortell *et al.*, 1996). Furthermore, how many of the barriers associated with transformations may be related to marketing practice? For example, among the challenges to Nortel's transition from analyser to prospector is development of its brand and corporate image, which has required an entirely new communication strategy. Previously, most communication occurred through Nortel's distributors and to telecom customers. Nortel now communicates with a wider audience through print and television advertising to establish its brand. Nortel's new positioning as an Internet company also requires a different strategic emphasis. For example, R&D and manufacturing, which were its traditional competencies, may not be among its key functions in the future. Its change of strategic direction is reflected in its adoption of a more flexible, network structure and its outsourcing of many functions that can be performed by other organisations more efficiently and effectively.

Discovering diversity in marketing practice over time

These case findings help to explain diversity in marketing practice in competitive space and illustrate why there is demonstrably no "one best way". However, it is also important to explore diversity in practice through time. Taking the firm as the unit of analysis, diversity through time results when firms adopt new marketing practices or new mixes of marketing practice as they co-evolve with their environment. Taking the industry (or population, in population ecology terms) as the unit of analysis, diversity through time is also reflected in the process of firm founding and disbanding. Using this perspective, diversity arises not through organisational change but through the introduction of new practice in new firms and the abandonment of old practice with the disappearance of older firms. Both explanations resonate with life-cycle models of change but go further by confronting the question of organisational inertia: do firms change or do only populations change?

Given that the mix of strategic types alters through the industry life cycle (Johnson, 1997) in response to changing criteria for effectiveness, it should follow that marketing practice will alter as well. Over time, firms are shown to adjust their configuration in response to environmental change (Zajac and Shortell, 1989; Johnson, 1997) and also to adapt their marketing practices. Forte *et al.* (2000) report that movement between configurations is considered rare, due to environmental and organisational constraints. However, they cite evidence that some organisations do change configuration, even though such change may increase the risk of failure. The study supports the notion that organisations systematically move toward the higher-performing organisational forms for a given environment, although their research context (hospitals) may be one in which high barriers to exit, and the absence of some of the harsher market disciplines, support adaptation rather than failure.

Longitudinal research is needed to comprehend diversity over time. One of the authors has completed a recent study of a firm over the 50 years since its founding, and has previously reported the evolution of its strategy-structure configuration and marketing practices (O'Driscoll, 1986). Roadstone is the largest supplier of stone-based building materials to the Irish building and construction industry. It is a subsidiary of Cement Roadstone Holdings (CRH plc), which is one of the biggest building materials suppliers in the world with a turnover of £7 billion and operations throughout Europe and the Americas.

Roadstone experienced five distinct phases of development. The first, from founding in 1949 to the mid-1960s, was a period of entrepreneurial development. In the next phase to the early 1970s, a more professional style of management took root with more formal management structures and controls; this was an era of rapid growth and high profitability during which the firm established its hegemony in the domestic marketplace. The third phase, commencing in the early 1970s and ending with that decade, is marked by a transition to industry maturity, restructuring and centralisation. Two major restructurings, in 1978 and 1982, saw the company move from seven profit-responsible divisions to three and its market share eroded considerably. The fourth phase, from the early 1980s to the mid-1990s, coincided with a downturn in the building industry and is best described as the "lean years" with downsizing, retrenchment and further centralisation into just two operating divisions. The mid-1990s saw the company's fortunes restored in a fifth phase as the so-called Celtic Tiger led a boom in the building industry.

Marketing practice evolved over these phases (see Table II). Marketing was absent from the first phase in a conventional sense, but was clearly practised by the founding team. It was formally adopted with enthusiasm during the second phase. Marketing units, staffed with marketing analysts, marketing managers and directors, were established. Marketing encompassed market

Table II. Roadstone phases and marketing practice

Period	Company phase	Marketing practice
1949-1965	Entrepreneurial	Informal: entrepreneurial team based
1965-1973	Marketing dominated	Professionalised marketing function Organisational differentiation and specialisation
1973-1982	Simplification and centralisation	Dispersion of marketing into line activity and teams Organisational integration
1982-1995	"Lean years"	Relationships, service and IT through multi-disciplinary teams
1995-to date	"Riding the tiger"	Relationships, service and IT through multi-disciplinary teams

research, promotion, selling and sales-force management, pricing and credit control, and played a large role in product development. Marketing personnel were the conduit for high quality data and intelligence about the market, competition and the industry. Many managers in the firm believed that marketing had too high a status in what was a low-tech, production-driven, business-to-business marketplace. During the latter part of the third phase and into the fourth, the formal marketing apparatus was largely dismantled. Soon there was neither marketing department nor marketing managers. Marketing was, of course, still conducted but it was now diffused throughout the organisation. The salesforce undertook many marketing activities in addition to their traditional sales task.

Sales representation in Roadstone was always of high quality compared with competitors and other industries. Great effort went into selection and development of sales personnel, who enjoyed considerable autonomy. During the difficult fourth phase the company made great efforts to deepen relationships with customers. A sophisticated customer service programme was installed, as well as close teamwork with the production and transport functions. This, allied with general flexibility and multi-skilling throughout the firm, left Roadstone well placed to take advantage of the up-turn in demand in the late 1990s. Roadstone continuously invested in new product development for exploitative and exploratory reasons through each phase, including the lean fourth era. New product introductions and technical service developments persistently caught competitors offside and set new industry standards.

Roadstone always scored highly in competitive comparisons in areas of sales representation, customer service and relationship marketing, product quality and new product development and has had a notable market orientation. It achieves this currently with two formally titled marketing personnel, compared to over 20 in phase two and early phase three. The company has managed its affairs in diverse and different ways over 50 years.

Predominantly incremental changes in strategy, organisational configuration, staff deployment, shared values and marketing practice are evident. This history reflects successive re-interpretations of the defender archetype. Most particularly, if Slater and Olson's (2000) hybrid typology is used, it represents an evolving expression of the "differentiated defender" archetype. The company established and maintained its dominance by emphasising innovation within the defender stance and by successfully deflecting competition from new entrants who generally pursue cost-based defender positions. The differentiated defender approach was pursued even when short-term gain from continuing innovation was absent. Roadstone's continuing investment in R&D, balancing levels of innovation with quotidian efficiency, is an interesting illustration of such commitment – or even of inertia as the ecologists might see it. The extensive history illustrates how a firm may adopt new marketing practices or new mixes of marketing practice as it co-evolves with its environment – practice may indeed be learned emergent and dynamic.

Organisational ecologists traditionally take issue with this view, arguing that inertia is typically so powerful as to rule out such change. In their explanation, evolution comes primarily through the disbandment of existing firms and the founding of new firms with new strategies, structures and routines. Evolution proceeds by selection among firms, not by the generation of variety, the exercise of selection and the subsequent retention of new traits within firms as was to be seen in Roadstone. Embracing a more resource-based view, Lovas and Ghoshal (2000) propose a model of guided evolution within the firm. The elements of their model are:

- strategic initiatives and human and social capital, which are the units of selection;
- strategic intent, which defines the firm's objective function;
- administrative processes which facilitate the evolutionary process;
- sources of variation; and
- agents of selection and retention – which include all employees.

In this schema, leadership is an active force which may create a set of administrative systems that replicate the processes of natural selection within the organisation and also guide those processes through the specification of strategic intent and the units of selection (Lovas and Ghoshal, 2000, pp. 893-4). They hypothesise that firms that choose strategic initiatives to exploit existing human and social capital, while simultaneously shaping the emergence of new human and social capital, will perform better in the long run than those that cannot balance exploitation and creation. Our case-based research provides evidence of such a process in progress in marketing activity at Roadstone and Nortel, incorporating a powerful role for strategic intent.

Diversity in marketing practice at industry level

Taking up the second explanation for diversity over time, emphasising that practice is selected and retained in an evolutionary process, population ecology provides theoretical and empirical support. Taking a population (or industry) as the unit of analysis, Aldrich (1999) argues that the kinds of organisation created and likely to persist will differ depending on where the population is in terms of its growth phase at the time of founding of a firm. Organisational ecologists identify two dimensions of organisational form that will vary with the size and growth rate of a population:

(1) strategy type; and

(2) specialist-generalist scope (Brittain and Freeman, 1980; Lambkin and Day, 1989).

It is proposed that "r-strategists" are positively selected in early rather than late stages of population density, where density indicates the size of the population. "K-strategists", by contrast, are favoured in late stages. r-strategists reproduce rapidly and move fast to capture resources when the carrying capacity of the environment is not yet fully exploited. Technological uncertainty and the absence of a dominant design (Rosenkopf and Tushman, 1994) favour them since they compete through innovation. K-strategists prosper when a population is at or near its carrying capacity and is characterised by the acceptance of a dominant design, by demands for efficient use of resources rather than speed, and when incremental innovation and product and process improvement are central to success. Moreover, from a population viewpoint, K-strategists will out-compete r-strategists and replace them as a population matures.

The specialist-generalist dimension is based on the market choice of the organisation in terms of breadth or narrowness. Specialists focus on a narrow niche and can out-compete generalists within their band of specialisation. Generalists choose a broad niche or focus and will out-compete specialists when the environment varies among different states in an uncertain manner. Specialists in an unstable environment are at risk because of their narrowness, while the generalist has security in flexibility.

These two dimensions yield four forms: r-specialist, r-generalist, K-specialist and K-generalist, although it is not altogether clear whether the r-generalist represents a null set (Aldrich, 1999, pp. 280-2). The early life of a new population or industry will be dominated by r-specialists (typically entrepreneurial start-ups). K-generalists (typically divisions and subsidiaries of established firms as well as new early-follower start-ups) develop and out-perform the r-specialists as market share and efficiency become the more dominant selection criteria. Later, K-specialists may prosper in narrow niches left unattended by the large K-generalists. Evidence from the merchant semiconductor industry and the US automobile industry provides support for this dynamic framework (Boeker, 1988; Aldrich, 1999, p. 281). While this might seem to argue for replacement through time of specialists by generalists, Carroll (1984, 1985) suggests the different forms co-exist. Evidence from the brewing, music recording, book publishing and microprocessor industries helps to make this case (Carroll, 1984). Our own case study research in the health care and building materials industries provides support for this proposition.

This provides a further, compatible explanation for our earlier conclusion about diversity in competitive space. More importantly, it provides one explanation for the origin of diversity: firms founded at different phases in the life of a population enter with different strategies and forms and are often likely to retain these forms through subsequent phases. The marketing practices of r-specialists (rapid market entry and growth combined with product design "bets" and high prices supporting relatively inefficient structures and processes in search of first mover advantage) can sit alongside those of K-generalists (early follower strategies, promotion of a dominant design/standard, product standardisation and incremental improvement, competitive pricing supported by operational efficiency, outsourced distribution for low cost) which may, in turn, sit alongside those of K-specialists (deep segment focus, segment dominance, incremental product improvement, value-based pricing). Aldrich (1999, p. 36) argues that organisations are the "temporary repositories of competencies and routines that are held by their members and embedded in their technologies, material artefacts and other structures. The distribution of these competencies and routines in a population depends on the selective survival and growth of organisations that contain different combinations of these". Variation in marketing practice may be seen as reflecting this same distribution of associated marketing competencies and routines with their origins in a population-level evolutionary process.

Business systems as complex adaptive systems

Aldrich (1999) also explores evolution at community level. "Community" is used to indicate a set of co-evolving populations. Such a community might be described as a business system or a complex value chain. A business system consists of the linked set of activities that turns raw material and novel ideas into final consumption products and services. Such systems incorporate multiple linked industries (Murray and O'Driscoll, 1996). In the consumer food business system, for example, the farm inputs, farm production, food processing, branded food manufacturing, food wholesaling and food retailing industries, as well as supporting industries such as food packaging or food temperature control, are all bound together in an elaborately inter-linked and complex system. Change in community conditions will affect the diversity of organisational forms and marketing practice through the processes of variation, selection and retention at the population level, summed across all populations in the community. Variation will, *inter alia*, reflect technological innovation, new firm foundation, proactive legitimisation strategies by entrepreneurs and collective action. Selection will reflect factors such as the struggle to establish a dominant design, legitimisation, venture capital choices, and social and cultural norms. Retention may operate through processes and structures that embody a dominant design, through the institutionalisation of human resource needs in the educational system, venture capital heuristics or the bureaucratisation of industry associations (Aldrich, 1999).

In such a richly joined and interdependent business system, complexity theory predicts that, for example, small changes in one part of the system may produce radical effects on the whole system (and vice versa). In the consumer food industry, a revolutionary source of variation is the shift from in-home to out-of-home food consumption. The latter now accounts for up to 50 per cent or more of final food consumption in some European and North American markets. With this shift comes the foundation of myriad new firms seeking to serve out-of-home consumption demands and to invent new ones. New lifestyles and new firms seek to provide a new legitimacy for novel behaviours. Acting on this variety, forces of selection favour certain organisational forms and practices. Struggle over dominant designs characterises much of competitive marketing activity, whether in fast food, catering or snack provision. Venture capital favours some initiatives and not others, influenced by forces as disparate as supporting what is familiar to supporting what is fashionable. And the pace of selection varies by location in cultural space, as apartments are built in New York without kitchens, while many southern Europeans still return home for their midday family meal. Retention has already acted on some forms of fast-food retailing, allowing global scale in operations in what was a traditionally fragmented, small business sector. This format converges on elements of a dominant technological, organisational and merchandising design, supported by mechanisms such as "McDonald's University" institutionalising related skills, and protected by strong industry associations and organised lobbying.

As one population – fast-food retailers – evolves within the set of new, out-of-home food retailing populations, it affects those others through processes of competition and cooperation while also dramatically affecting the evolution of populations along the upstream "vertical" business system. For example, the supply of french fries to McDonald's is dominated globally by McCain, a specialist, global potato processor. Its power has turned part of the potato "value chain" into a tight, vertically coordinated system under one company's control. McCain's power allows it to specify farm inputs such as seed and agro-chemical inputs, farming practice among contract farmers, and to manage processing and distribution to retail restaurant level. Their impact, in pursuit of McDonald's requirements for globally standardised product quality, changes fundamental relationships as far upstream as how agro-chemical firms market to farmers. In this case, they largely eliminate conventional marketing activity by specifying product and application to both parties. For the agro-chemical firm, a significant segment of demand moves from multiple farmer and farm merchant relationships to a single and potentially fraught global key account relationship. In myriad such ways marketing practice is revolutionised throughout a community of populations in a business system.

While traditional ecological and evolutionary theory leads readily to an explanation of diversity through time that is incremental and cumulative, the conceptualisation of business systems as complex adaptive systems consisting of interdependent co-evolving populations, or industries, allows for the appearance of revolutionary change. In the three cases recently investigated by Torres and Murray (2000), Nortel's continuing process of corporate transformation illustrates both the pressure for, and the nature of, radical change in marketing practice brought about by the impact of new technology in a changing telecommunications business system. If Nortel is successful in repositioning itself and in developing and practising new marketing skills, it will have changed despite powerful inertial forces. If it is unsuccessful, it is clear that new entrants and other existing, but transformed, competitors will evolve with the new technological, market and competitive circumstances. In either case, the nature of marketing practice will change.

Conclusion

Gould's (1990) work on evolutionary biology reminds us that the nature of diversity may be quite different to the beliefs of conventional thinking in a discipline. Conventional marketing wisdom appears to relegate diversity in practice to the unimportant. Why this is so is not clear. Some underlying concepts used in marketing beg serious enquiry – segmentation and life-cycle concepts, for example, are inherently concerned with responding to diversity. Perhaps the continuing dominance of a managerial, decision-making framework leads to a blind-spot about diversity.

We have tried to make sense of diversity and to search for evidence of archetypal order. Encouragement for this line of enquiry has been provided by the work of a small number of researchers who have used and adapted Miles and Snow's typology in studying marketing contingencies. They present evidence of considerable diversity in marketing practice across competitive space and attempt to explain it in a systematic manner. Our research using cross-sectional case studies extends this enquiry and further confirms the presence of diversity. Marketing practice also evolves over time. The type of marketing carried out and how it is managed, organised and delivered changes and reshapes itself as the firm co-evolves with its marketplace. Our cross-sectional and longitudinal evidence provides clear support for this proposition. Marketing practice evolves not just by virtue of organisational change – which must deal with powerful inertial forces and the consequential risk of failure – but by population and community evolution as a result of which both continuous and revolutionary change may occur. The work of population ecologists demonstrates this and our continuing research seeks to explore this dynamic in greater detail.

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Appendix

Strategic types	Entrepreneurial problem	Engineering problem	Administrative problem	Marketing problem (propositions)
Defender	To seal off a portion of the total market to create a stable set of products and customers	To produce and distribute goods or services as efficiently as possible	To maintain strict control of the organisation in order to ensure efficiency	To safeguard relations with targeted market segment(s)
Costs and benefits to strategy type	Very difficult for competitors to dislodge firm from its industry niche, but a major market shift may threaten survival	Technological efficiency is central to performance, but heavy investment in technology requires that these problems remain familiar and predictable for lengthy periods of time	Administrative system is ideally suited to maintain stability and efficiency, but not well suited to locating and responding to new products or market opportunities	Marketing planning has long-term, stable perspective and may be highly detailed. Marketing practices tend to be mechanistic in nature, and maintain the established brand image
Prospector	To locate and exploit new product and market opportunities	To avoid long-term commitment to a single technological process	To facilitate and co-ordinate numerous and diverse operations	To exploit first-mover advantage, establish trust and credibility for launching successive innovations
Costs and benefits to strategy type	Product and market innovations protect firm from a changing environment, but the firm also runs the risk of lower profitability and over-extension of its resources	Technological flexibility permits a rapid response to a changing domain, but the firm cannot develop maximum efficiency in its production and distribution systems due to multiple technologies	Administrative system is ideally suited to maintain flexibility and effectiveness, but may under-utilise and mis-utilise resources	Marketing practices and planning are short run in nature, and not very detailed. The exception is in the area of corporate branding which is vital in communicating the brand values and securing the brand asset (i.e. customer loyalty)
Analyser	To locate and exploit new product and market opportunities while simultaneously maintaining a firm base of traditional products and customers	To be efficient in stable portions of the domain and flexible in changing portions	To differentiate the organisation's structure and processes to accommodate both stable and dynamic areas of operation	To manage marketing communication requirements for stable and dynamic product sets and the associated audiences
Costs and benefits to strategy type	Low investment in R&D, combined with imitation of demonstrably successful products, minimises risk, but domain must be optimally balanced at all times between stability and flexibility	Dual technological core is able to serve a hybrid stable-changing domain, but the technology can never be completely effective or efficient	Administrative system is ideally suited to balance stability and flexibility, but if this balance is lost, it may be difficult to restore equilibrium	Marketing practices that reflect the duality of nature for established and pioneer products, but this produces tensions in how to strike the appropriate balance in marketing efforts

Source: Adapted from Miles and Snow (1978)

Table AI. Miles and Snow's strategic types: solving the entrepreneurial, engineering, administrative and marketing problems