INFUSING THE NEW PRODUCT DEVELOPMENT PROCESS WITH A MARKETING CAPABILITY

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Abstract

In a rapidly changing business environment the role of the marketing function has evolved from performing tactical marketing tasks to infusing a marketing capability into the organisation’s core business processes. Empirical and anecdotal evidence suggests that merely performing traditional marketing tasks does not always lead to a new product development process guided by a comprehensive understanding of the market. This conceptual paper examines the literature on the changing role of marketing and links it to an emerging body of research on the influence of the marketing function in the new product development process. From this synthesis of the literature, a range of future research directions are discussed with the objective of stimulating advancement in the theoretical, managerial and pedagogical development of the new product development literature.

Introduction

The role of the marketing function is evolving rapidly and is influenced by a variety of changes in the business environment including the emergence of the knowledge economy (Day & Montgomery 1999 cited in Bean & Robinson 2002, p. 205) and the market-oriented era of business strategy that emerged throughout the 1990’s (Day 1997; Webster 1997). That particular era of business strategy evolution was appropriately designated as the market – oriented era because of its central focus on the customer and the market (Cravens et al. 1998; Day 1994). More recently knowledge acquisition and exploitation in the new knowledge economy has become the critical point of differentiation between competing organisations (Bean & Robinson 2002).

Within this context, the changing role of the marketing function has received increasing attention from both academics and business practitioners (Achrol & Kotler 1999; McKenna 1995; Walker & Ruekert 1987; Webster 1992, 1997). While some forecast a declining role (Hulbert 1998; Piercy 1998), others see new opportunities and an increasingly important role for the marketing function (Cravens 1998; Gummesson 1998; Srivastava, Shervani & Fahey 1999). Srivastava and collaborators’ (1999) proposition that the role of the marketing function is to infuse all core business processes with a marketing capability, is representative of similar normative statements made by a range of respected academics over the past decade (Achrol & Kotler 1999; Day 1997; Gummesson 1996, 1997, 1998; Moorman & Rust 1999; Webster 1992).

Most academics would concur that whilst marketing professionals have been elevated from functional specialists to play an important role in the formulation and implementation of core business processes, little is known about exactly how the
marketing function has responded (Jarratt & Fayed 2001). That is, how is the marketing function infusing a marketing capability into core business process? What roles are marketing professionals fulfilling in the current business environment? The core business process that is the focus of this conceptual paper is new product development (NPD) because of its contribution to sales and profits (Brown & Eisenhardt 1995; Page 1993) and because of its link to the long term success of the organisation (Cooper & Kleinschmidt 2000).

This conceptual paper attempts to address these issues by synthesising the literature on the changing role of the marketing function and NPD to identify a range of research issues worthy of future academic excursion. First, the author will briefly discuss and comment on how the role of the marketing function has changed over time and the predictions for the future. Following that discussion, the strategic significance of NPD will be addressed and the role of the marketing function within the NPD process will be presented. Finally, a range of important research directions and issues emerging from the synthesis and potential research contributions will be introduced.

The changing role of the marketing function and looking ahead to the future

The emergence of the market-oriented era of competitive strategy placed the relationship with the customer as the driving strategic force. The degree to which the organisation implements a market orientation is based on its desired level of organisational-wide concern and responsiveness to customer needs and competitive actions (Kohli and Jaworski, 1990). Narver and Slater (1990) characterise market-oriented organisations as having three behavioural components: customer orientation, competitor orientation, and interfunctional coordination. A market-oriented strategy relies on a shared responsibility for customers across the organisation and this has resulted in the considerable integration of business functions (Jarratt and Fayed 2001; Pitt and Morris 1995; Webster 1992, 1997).

As a result, organisations are being transformed into flat structures with the pervasive break down of functional boundaries across the organisation (Piercy, 1998). Other organisational consequences include managing processes rather than functional specialisation and the building of relationship strategies between different organisations including extensive outsourcing of non-critical activities and the emergence of network relationships with other organisations. The literature identifies a change in emphasis for the marketing function. Marketing managers today in most organisations have been elevated from functional specialists to play an important role in the formulation and implementation of competitive strategy (Cravens et al. 1998; Gummesson 1998; Jarratt and Fayed 2001; Pitt and Morris 1995; Webster 1992, 1997).

A number of respected academics predicted the marketing function would assume an increasingly important role in the market-oriented firm (Gummesson 1991, 1997, 1998; Pitt and Morris; 1995). Managing relationships outside the organisation and managing cross-functional and cross-organisational business processes have gained importance within the organisation and have changed the role and influence of marketing (Jarratt and Fayed 2001). Not all academics have shared in the optimism for the increasing role of the marketer in the market-oriented organisation. Piercy (1998, p. 237) observed the ongoing debate between academics and business
practitioners on the role and relevance of marketing in the future: ‘Some forecast a declining role, while others see new opportunities as the market is increasingly recognised as the starting point in strategy formulation.’ Gummesson had no illusions about the important role marketing would play and challenged many of the observations made by Piercy, ‘…what Piercy calls the weakening of marketing is a revival and strengthening of marketing’ (Gummesson 1998, p. 243).

More recently the Journal of Marketing (ed. Lusch 1999), the Australasian Marketing Journal (eds. Alpert & Johnson 1998) and the Marketing Science Institute (eds. Lehmann & Jocz 1997) have dedicated separate publications to consider the future of marketing. While the terminology varied, across all three publications, the implicit message was that the contribution and status of marketing as a function within the organisation and as a discipline will be determined by its ability to contribute to the direction, integration and outcomes of core business processes (Achrol & Kotler 1999; Day 1997; Moorman & Rust 1999; Srivastava, Shervani & Fahey 1999; Webster 1997;). Srivastava and collaborators suggest it is the role of marketing to infuse a marketing capability into core business processes such as NPD, customer relationship management and supply chain management. Infusing a marketing capability requires the marketing function to fulfil the role of the ‘primary generator and integrator of market or customer inputs in core business processes’ (Srivastava, Shervani & Fahey 1999, p. 168). In relation to the NPD process, the researchers suggest that in order to move towards a market-driven NPD process, developments must be invigorated by a genuine customer orientation to create products that satisfy their needs and deliver superior value.

Marketing must play a key role influencing core business processes if organisations are to survive in an increasingly competitive and turbulent business environment. In the intervening years since the future of the marketing discourse featured in the marketing literature, little has been done to answer the question of how marketing can fulfil this role. NPD in particular as a business process, is characterised by high risk, uncertainty, complexity, conflict and, despite the increasing attention it receives in the business literature, a high failure rate (Griffin 1997). Given the difficulties of the NPD process, how can the marketing function infuse a marketing capability into the NPD process? Before returning to this and other critical research issues, the following section will discuss the importance of NPD as a business strategy and process.

NPD as a business strategy and process

The ability of companies to compete has been dramatically affected by increased levels of competition, rapidly changing market environments and customer needs, higher rates of technical obsolescence and shortened product life cycles (Griffin 1997). Thus, new products in many industries are becoming the nexus of competition (Clark & Fujitimo 1991) and are vital to the long-term success and prosperity of the modern organisation (Cooper and Kleinschmidt 2000).

NPD as business strategy is important because of its overall contribution to the organisation’s performance at several levels. Successful new products can account for a high percentage of an organisation’s sales and profits. A study conducted in the United States by the Product Development Management Association (PDMA) found that in 1993, 33.2% of annual sales were predicted to have come from internally
developed products introduced within the previous 5-year period (Page 1993). In an
Australian study, industrial manufacturers and consumer goods manufacturers had an
average of 19.3% and 27.2% respectively of their sales attributed to new products
introduced over the 3-year period prior to the study (Kyriazis 2002).

NPD is essential for the success, survival, and renewal of organisations, particularly
for firms in either fast-paced or competitive markets (Brown & Eisenhardt 1995).
Organisations proactively use NPD as a business strategy to differentiate themselves
from their competitors. LG Electronics, the South Korean whitegoods and consumer
electronics manufacturer formerly branded as GoldStar in the Australian market, has
used NPD to successfully reposition and re-brand itself as a technological leader in
the marketplace (Howarth 2003).

NPD as a core business process, involving varying degrees of formalisation, is
important because of the link between the use of a formal NPD process and NPD
success established in the literature (Cooper & Kleinschmidt 2000; Griffin 1997).
Furthermore, the NPD process is important and worthy of academic investigation
because of its inherent complexity and cross-functional nature. Cross-functional
coordination, referred to as interfunctional coordination by Narver and Slater (1990),
is recognised as an important antecedent to market orientation, so what does the
literature reveal between the market-orientation and NPD link?

The findings on the market orientation - NPD performance link are contradictory
(Lukas & Ferrell 2000). Several studies indicate market-oriented organisations create
products that transform market needs (Jaworski & Kohli 1993; Narver & Slater 1990),
and others suggest market oriented behaviour yields superior innovation and greater
new product success (Deshpande, Farley & Webster 1993; Kohli & Jaworski 1990;
Slater & Narver 1994).

However, other researchers suggest a negative relationship between market-
orientation and NPD performance arguing that a strong market orientation may lead
to imitations and marginally new products (Bennett & Cooper 1979, 1981) and that it
can constitute a barrier to commercializing new technology and lead to reduced
competitiveness (Christensen & Bower 1996).

More recent empirical studies however have reported a significant relationship
between product innovation and market orientation (Atuahene-Gima 1996; Lukas &
Ferrell 2000; Rashid, Llanes & Yew 2003). Here emerges one of the first significant
gaps in the extant literature. If a market-oriented organisation does achieve better
NPD outcomes, how do marketing function professionals ensure the NPD process is
infused with a marketing capability?

The role of the marketing function in NPD

There has been limited empirical examination of the actual role and activities of
marketing within the NPD process. It has been implicitly assumed in the marketing
literature that marketing should have a significant role in product development
decisions and the NPD process and that the marketing function is able to guide the
efforts of other functions in the firm (Workman 1993). Similarly, NPD textbooks
written for undergraduate marketing students appear to have been written working
under the same presumption. Most textbooks focus on the tactical tasks performed by marketing throughout the NPD process. The marketing function traditionally performs the following tasks: ascertaining new customer needs; finding and evaluating new applications for products and technologies; conducting market research; monitoring competitors’ likely product introductions; trouble-shooting customer problems; producing product literature, and; formulating and managing the launch (Griffin & Hauser 1996, p. 192). Empirical and anecdotal evidence suggests that merely performing traditional marketing tasks does not always lead to a new product development (NPD) process guided by a comprehensive understanding of the market (Griffin 1997).

In order to ensure the new product development process is infused with a marketing capability, marketing professionals must influence that process and guide it towards developing a product that delivers superior value to the customer. This requires identifying and managing internal functional/departmental relationships. Looking beyond the organisation, it requires developing and sustaining networks of linkages with external organisations (Srivastava, Shervani & Fahey 1999, p. 170). The marketing literature has provided excellent coverage of the functional marketing tasks, however the more complex and difficult role requiring the marketing function to manage internal functional/departmental relationships while still performing the aforementioned functional tasks has received limited academic attention. Given that cross-functional NPD teams are characterized by complexity, conflict, political factionalism, and problems associated with the different ‘thought worlds’ of project team participants (Atuahene-Gima & Li 2000), it is not surprising that marketing professionals often struggle to infuse a marketing capability into the process.

Empirical research supports the proposition that marketing’s participation in the NPD process and its integration with other functional groups are among the most important factors affecting new product success (Walker & Ruekert 1987; Souder 1988; Li & Atuahene-Gima 1999). Most prior research on the role of the marketing function has focused on its participation, conceptualized as ‘the amount of information shared between marketing and other participants in the NPD process’ (Li & Atuahene-Gima 1999, p. 34). Related back to the call for marketing professionals to infuse the NPD process with a marketing capability, will marketing professionals be able to guide the NPD team towards delivering a market oriented product by merely sharing information? Given the inherent difficulties involved with the differential ‘thought worlds’ and power bases of other NPD team participants, they may choose to ignore or defy the information provided by the marketing specialist and this may dilute the input they have in the process. Alternatively, the ability of the marketing specialist to influence the process rather than merely participate may be a more critical antecedent to its ability to truly infuse the NPD process with a marketing capability. Influence is conceptualized as the extent to which information provided by marketing leads to change in the attitudes and behaviour of the recipients (e.g., R&D, Manufacturing, Finance) in the NPD team (Li & Atuahene-Gima 1999).

Research based on data collected from 114 high-technology Chinese organisations suggests marketing’s influence is related positively to new product market performance and timeliness of development (Li & Atuahene-Gima 1999). The following table indicates the influence tactics used by marketing function specialists in the same sample of the previously mentioned study. In terms of tactic usage

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<th>Influence Tactics</th>
<th>Usage</th>
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frequency, persistent pressure, information exchange and recommendation were the most frequently used tactics. Coalition formation and upward appeal tactics were used moderately with legalistic plea and request used least frequently. In terms of influence tactic efficacy, the results indicate that persistent pressure, information exchange, and coalition exchange result in higher levels of marketing influence in the NPD process (Athuahene-Gima & Li 2000) which in turn lead to improvements in the performance of new products in the market and timeliness of development (Li & Atuahene-Gima 1999).

### Table 1 (from Athuahene-Gima & Li 2000, p. 456)

<table>
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<tr>
<th>Influence Tactics</th>
<th>Definition</th>
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<tr>
<td><strong>Soft Tactics</strong></td>
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<tr>
<td>Information exchange</td>
<td>Marketing provides general market information and discussions on general NPD issues without suggesting specific actions to the influence target.</td>
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<tr>
<td>Recommendations</td>
<td>Marketing uses reason, logic and rational persuasion to convince the influence target that following a specific course of action is likely to be beneficial to the NPD effort.</td>
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<tr>
<td>Request</td>
<td>Marketing informs other members to take suggested actions based on personal relationships.</td>
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<tr>
<td>Coalition formation</td>
<td>Marketing builds alliances with co-workers and members from other departments to gain support for its viewpoint or demand on the influence target.</td>
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<tr>
<td><strong>Hard Tactics</strong></td>
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<tr>
<td>Legalistic plea</td>
<td>Marketing cites organisational rules and regulations that require the influence target to perform a certain action.</td>
</tr>
<tr>
<td>Upward appeal</td>
<td>Marketing appeals to superior or high authority in the organisation to support its viewpoint or demands on the influence target.</td>
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<tr>
<td>Persistent pressure</td>
<td>The amount of effort, persistence and pressure that marketing brings to bear on the influence target to accept its viewpoint or demands.</td>
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The emergence of the influence literature within the NPD context may go some way to prescribing how the marketing function can infuse the NPD with a marketing capability, but deeper investigation is required. The following section will identify a range of knowledge gaps and limitations of the extant literature and make some cursory suggestions for future research directions.

**Future research directions**

A number of ‘knowledge gaps’ can be identified from the existing literature. First, the empirical research conducted on the influence of the marketing function is based on the views of one informant from the R&D department (Li & Atuahene-Gima 1999). Given the cross-functional nature of new product development and the widely reported (Souder 1977, 1980, 1988) antagonistic relationship between marketing and R&D, it is important that the views of a cross-section of NPD team participants are gathered to evaluate the use and efficacy of influence tactics used by the marketing function.
Second, most empirical studies refer to NPD in the abstract, an approach relying on retrospective sense making, rather than focusing on a specific NPD process. Given the complexity of the NPD process, it may be difficult for participants to generalize about it (Brown & Eisenhardt 1995; Dougherty 1990). The requirement for the unit of study to be project based is magnified if multiple informants are to participate in the study to ensure that all responses are related to the same NPD process.

Third, the empirical studies that do explore the role played by the marketing function in the NPD process are based on high-tech firms (Li & Atuahene-Gima 1999; Workman 1993) operating in China (Li & Atuahene-Gima 1999). No known study to date has designed a research project to identify and evaluate the impact of the contextual issues of technological complexity and culture. In fact, a myriad of contextual issues could impact on the level of influence marketing specialists have on the NPD process and therefore their ability to infuse a marketing capability into the process. Research by Homburg, Workman and Krohmer (1999, p. 10) found limited support for the proposition that when market-related uncertainty is high, marketing makes a more important strategic contribution to the organisation because of the increased need to gather and process market-related information. Other contextual issues identified in the literature on the influence of the marketing function include market growth (Homburg, Workman & Krohmer 1999; Walker & Ruekert 1987); differentiation and cost-leadership strategy (Hitt, Ireland & Palia 1982; Homburg, Workman & Krohmer 1999); distribution and customer base (Corey, Cespedes & Rangan 1989; Homburg, Workman & Krohmer 1999); corporate context and culture (Homburg, Workman & Krohmer 1999); industry context (Homburg, Workman & Krohmer 1999; Workman & Webb 1999) and societal and cultural context (Homburg, Workman & Krohmer 1999). However the aforementioned contextual issues have only been explored in terms of the effect they have on the general influence of the marketing function as opposed to the influence the function has on the NPD process. This is vital if we are to understand the role the marketing function will play in different locations across a global business world and across different industries and contextual circumstances. Also of concern, considering the strategic importance of the business process to the organisation’s performance, is the dearth of research on NPD within the Australian context.

Finally, another limitation of the extant literature is closely tied to the discipline’s firm and long-held entrenchment in the positivist epistemological tradition (Kiel 1998). With the exception of Workman’s participant observation study on the role of marketing in NPD (1993), the majority of the related extant literature is based on large-scale quantitative surveys that fail to capture the inherent complexity of the NPD process. Brown and Eisenhardt (1995) in their seminal NPD paper highlight the need for further research that can answer the “how” and “why” questions’ using a range of research designs and clearly defined constructs. According to Brown and Eisenhardt, ‘… the next step is figuring out just what is a “better” product or just how do people go about the “effective” execution to develop such a product’ (1995, p. 350).

The Atuahene-Gima and Li study (2000) found that persistent pressure was the most effective influence tactic used by marketing but further in-depth investigation employing a case study research design could uncover how marketing can apply persistent pressure to NPD team participants. While the case study research
methodology has been criticised for being less codified than other quantitative research methodologies, case study research can be carried out rigorously, resulting in a high degree of validity and reliability (Adams, Day & Dougherty 1998; Alam 2002; Yin 1994). Given the embryonic stage of the research, the results could be instrumental in guiding future research. However, research methodologies grounded in a range of epistemologies beyond the positivist perspective must be used to advance the knowledge in this important area.

The need for further research is important from a theoretical, managerial and pedagogical perspective. First, from a theoretical perspective the research will assist in building and then testing a conceptual framework to determine the antecedents to infusing a marketing capability into the NPD process. Second, from a managerial perspective the research will potentially improve marketing practice by improving the efficacy of the marketing function’s involvement in the NPD process, a key determining factor of new products success. Third, the pedagogical contributions will be realised by using the research outcomes to review the skill set required of marketing graduates. In some marketing schools this may lead to a reconfiguration of core and elective subjects that make up the marketing degree. For example, how many marketing courses include a subject or module on organisational psychology? In order to improve the quality of marketing graduates, universities must prepare them for the role they will be expected to play in the current and future business environment. While most NPD textbooks acknowledge that a marketing capability is germane to NPD success, most fail to explicitly instruct students on what role marketing will actually play throughout the process. Teachings on NPD must go beyond instructing what needs to be done. To be effective marketers, students need to know “how to do it”.

Conclusion

A consistent theme has emerged from the predictions made by influential marketing academics on the future of marketing. If marketing is to remain an integral organisational function it must infuse a marketing capability, or put another way, a marketing orientation into all core business functions. If that is the case, research must now focus on how that can be achieved. Due to its strategic significance, NPD was selected as the core business process as a focal point for this review. The objective of this conceptual paper was to identify a link between the normative literature on the future of marketing to the emerging body of influence literature and to suggest future research directions. Regardless of the direction future research does take, it must rely on a combination of research methodologies that can answer the crucial “who,” “what,” “where,” “how,” and “why” questions. The theoretical, managerial and pedagogical advancement of the discipline into the future will rely on it.

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