

THE NEW PRODUCT DEVELOPMENT PROCESS IN AUSTRALIAN GROCERY ORGANISATIONS

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The idea that new product development is vital to many organisations' business survival and growth is widely acknowledged. New products provide many business opportunities for organisations. The relationship between new product development and business strategy is critical, as corporate purpose and scope sets the guidelines for new product planning.

This paper examines the new product development process in the Australian grocery organisations and the influence of strategic planning on new product development.

Top management's skills and vision in addressing various issues in new product development are vital to business success. The research findings highlighted the importance of top managements support during new product development phases

Creating an innovative culture within an organisation should be a management priority, so new product ideas can be generated from various levels in the organisation.

Key words: *New product development, Australian grocery organisations, organisational structure*

Introduction

New products continue to be of critical importance to almost all organisations. Intense global competition, short product and technology lifecycles, unpredictable consumer buying patterns and possible market stagnation makes new product development a critical activity in most businesses. New products provide organisations with growth opportunities that allow them to strengthen their market position.

Strategic planning identifies opportunities for new product development and sets new product planning guidelines. Creating the right organisational culture that can encourage innovation is one of the primary tasks for top management. Developing successful new products requires systematic planning and integration of various organisational cross-functional activities. Without a clear direction from top management it is difficult to select the right innovation strategy. Senior management's involvement in the new product planning process is directly responsible for a new product's success rate in the market.

The literature suggests that the success rate of new products depends on many factors, including the organisation's size, management style, available resources, staff expertise, senior management support, marketing strategies and distribution channels. The successful development of a new product requires involvement from marketing, sales, design, research and development, finance, manufacturing, technical and legal functions. To ensure the continuing interaction among all these functions, it is critical to maintain a constant flow of communication through one central information point in the organisation.

Research object: new product development process.

The purpose of the article is to examine new product development process in Australian grocery organisations and explain why some steps of new product development are not followed. The study examines influences of senior management's role, organisational structure and strategic planning.

The research methods: the article is based on systematic literature analysis, survey and focus groups results as well as general conclusion method.

Background to the study

Kotler et al. (1994) argues that new products are original products, product improvements, product modifications and new brands that the business develops through its own research and development efforts. Thomas (1993) suggests that a new product is a multidimensional concept that has not been experienced by a significant number of stakeholders potentially interested in it and is capable of offering a strategic competitive advantage.

Strategic planning sets important guidelines for new product development. Some organisations are very successful in creating an innovative culture that promotes new product ideas and reward staff for their contribution towards new product development. Cravens (2000) suggests that successful innovation requires the creation of innovative culture, selecting the right innovation strategy, development and implementation of effective new product processes, making resource commitments and leveraging capabilities.

Cooper (1993) presents a detailed list of the main elements contributing to the final outcome of new product development. These elements are:

- unique and superior features of a new product. Product superiority comprises unique product attributes and characteristics, good value for money, meeting customer needs, excellent product quality, superior price characteristics, and perceived product value.
- a strong market orientation - this means that product development processes should be market driven and customer focused.
- requirements of a new product should be clearly defined and agreed by all parties involved in the project. Early product definition normally describes the target market of the intended product users, description of the product concept and the product's benefits.
- a cross-functional team approach not only speeds products to market, but also enhances the success rate. Successful new projects have a balanced process that involves marketing, engineering, research and development, production, design and finance.

To ensure a well-coordinated project, the team involved in that project should be accountable for the entire project and demonstrate their dedication to completing it. Furthermore, a strong leader, who can drive the project and convince top management to support the project, is essential in the effective management of new products.

- focus is central to success. It is vital to have a focus in any new product development and ensure that the best possible resources are devoted to the most important projects.
- quality of execution is paramount. The various steps and actions which make up the innovation process - how well they are done and whether they are done at all drives new product outcomes. There is a strong link between quality of execution and success for most activities.

Three factors that drive new product performance are: the quality of a firm's new product development process, the resource commitments made to new product development and the new product strategy. The determinants of new products success include strategic factors, such as product advantage, marketing synergy, technical synergy, developmental process factors and market knowledge (Hutt and Speh, 2004).

According to Crawford (1994), in the very beginning of any project most attention should be on the strategic aspect - the mission statement, goals, objectives and organisation's capabilities. All the other stages involve technical product development, evaluation and commercialisation that work hand in hand with strategic planning. Crawford concludes that today's product development is a multifunctional program, where all functions work together to accomplish the required tasks.

The strategic planning process in most organisations starts from senior management, and then moves to product line management and functional managers. However, in more progressive firms, there is a continuous interplay between various functions involving top management and product management. Crawford believes that the core set of functions, such as technical, manufacturing, marketing and finance, constitute the main basis for any new product development process. This core team will normally finalise all marketing decisions, positioning, advertising, launch programs and any other related activities. This is why multifunctional teams are essential in any effective new product development process.

The most important aspect of the strategy process is to put the strategic plan into effective action. By following the strategic planning framework, organisations are much more organised and are effective in moving towards achieving their goals and objectives. Moreover, by planning new product strategies from a corporate perspective, organisations are able to develop products that fit the organisation's business portfolio. However, it should be noted that sometimes the logical steps of strategic planning could restrict the flow of creative and spontaneous ideas, which frequently eventuate into innovations. To sustain their competitive advantage, many leading organisations make new product development a top management priority. They directly involve managers and employees from across the organisation to speed up actions and decisions. (Hutt and Speh, 2004)

Kotler et al. (1994) contends that the most important element in strategic planning and new product strategy is a strategic fit between the organisation's goals and capabilities to implement new product development. The first step for any organisation is to have a mission statement and objectives. The next step is to design the business portfolio that is best for the organisation and fits its culture. Each business and product unit must in turn develop a detailed marketing plan that supports the overall strategic plan. During this stage new product strategies should be designed and formulated so their implementation can be conducted in conjunction with the organisation's strategic plan.

The concept of strategic planning and product development has been analysed in-depth by Harris (1996). He suggests that there are four main barriers to strategic planning. These are: the absence of an initial idea to plan, an obstructive organisational "mindset", ignorance and anti-planning personnel.

Harris believes that many organisations are faced with these problems because they do not really understand the importance of strategic planning. For example, small businesses always try to avoid the initiation of planning because they believe planning is necessary only for very large organisations. Consequently small businesses encounter quite a few problems during the product development, implementation, testing and execution of product launches. The author argues that some organisations never initiate planning and even openly admit their ignorance of the process of planning. The main reason for this is the lack of knowledge about planning and manager's inability to apply planning principles.

The fourth identifiable impediment to planning is a person who can be labelled the "anti-planner". The "anti-planner" is usually known for employing a variety of tactics aimed at delaying initiation to plan. This kind of person considers planning a "waste of time". The greater the influence of an "anti-planner", the lower the probability of planning initiation.

The importance of strategic planning is examined in Mintzberg's article (1994). The author contends that strategic planning is like programming in terms of the articulation and elaboration of strategies. Mintzberg further states that planning can not generate strategies, it can only make them operational. Once strategies are in place, they must be precisely articulated in order to adapt to a changing environment.

Mintzberg believes that strategic planning is always about analysis, about breaking down a goal into steps and formalising those steps. Planners are always expected to make their contribution around the strategy making process, rather than inside it. They act as catalysts that support strategy formulation by encouraging managers to think strategically.

Kotler et.al.(1994) argues that to ensure successful new product development, it is critical to have strong new product planning. He believes that top management is ultimately responsible for the new product success rate. Senior managers should establish specific criteria for new products and define strategic roles, so product managers, research and development staff, marketing and other employees are sure of what role the new product will play. Furthermore, to ensure a co-ordinated new product development process, senior management should set up effective organisational structures that can be tailored to handle all aspects of the new product.

Due to the high costs involved in product development, some organisations commence their development of new products too late and as a result, miss out on many business opportunities. This kind of "non-strategic" attitude to new product development creates stagnation in these organisations and frequently ends up in a new product failure. By not defining what is wanted and expected from new product development, the organisation can never be sure whether its investment is worthwhile. Clear objectives and targets are essential when implementing new product development projects to ensure the cost effective and timely commercialisation of new products into the market.

Successful organisations in new product development are those that develop new products as part of the overall corporate strategy in order to create a competitive advantage for their business in the market. They determine the organisation's internal strengths, financial objectives and strategic roles for the new products and constantly evaluate the external environment in order to understand potential consumer needs. All new products should play a strategic role in the organisation's business strategy. (Kuczmariski, 1988)

The strategic role of new products is not only to generate revenue, but also to provide strategic direction to enable product managers to see the purpose of a new product and opportunities for new business.

New product development is resource hungry and with failure rates as high as 80 percent in the grocery sector; therefore organisations need to manage the formulation, screening and launch of new products to their best of their ability. Some organisations choose to build a facility for product innovation in-house. (Varley, 2006)

Urban and Hauser (1993) contend that any organisation can decide on its strategic direction for new product development. The two main strategies for product development are either reactive or proactive. A reactive product strategy is based on dealing with the initiating pressures as they occur, whereas a proactive strategy would explicitly allocate resources to pre-empt undesirable future events and achieve goals.

To select the appropriate strategy, organisations must understand the situations that affect this decision. Urban and Hauser suggest that reactive strategies may be best in situations that:

- require concentration on existing products or markets
- can achieve little protection for innovation
- are in markets too small to recover development costs
- are in danger of being overwhelmed by competitive imitations

- are in distribution chains dominated by another innovator.
- For other situations, the authors recommend proactive strategies that:

- require rapid sales growth
- mean entering new markets
- provide high volumes or margins
- offer a capability of achieving patent or market protection
- supply resources and time necessary to develop new products
- block competitors from rapidly entering with a second, but better strategy
- provide reasonable power in the distribution channel.

Urban and Hauser argue that by simply assessing situations, organisations can apply reactive or proactive strategies and, as a result, be more successful in the long run.

The first step in planning for new products is to define an organisation's current business status and to identify future goals. Gruenwald (1992) argues that by developing a corporate mission statement and corporate objectives, organisations will reflect their perspectives, input, capabilities and responsibilities.

Gruenwald (1992) explains that the stronger the commitment to follow corporate strategies, the more successful new product development will be. The commitment is not only a personal career dedication, but involves staffing, funding and investment that could support new product development.

Bruce et. al. (1995) believes it is critical to acknowledge that corporate strategy should not restrict creativity and innovation in the new product development process. The authors recommend striking a balance between the technological and marketing orientation in the corporate strategy, to encourage product differentiation.

A classic growth pattern for many organisations is to add new products and leverage brand equity into other product categories. A rationale for product additions is to achieve synergies that can benefit organisations' new product development. (Aaker, 2005).

In order to maintain the connection between the new product development strategies and corporate strategies, organisations need to focus on what businesses they are in. Since a particular approach in the end has to work in the mind of the customer, it cannot be complicated, high-minded or difficult to understand. Any staff member involved in new product development should be able to describe the organisations' business strategy and the main steps involved in product development.

A focused strategy for new products gives the organisation direction for the future projects, empowers staff involved in product development, increases competitiveness and makes the new product development process more efficient.

Methodology

The research used a combination of qualitative and quantitative research approaches. The major part of the research study involved the implementation of a comprehensive mail survey sent out to 600 Australian organisations.

The list of these organisations was obtained from the Australian Grocery Association and the Australian Manufacturing Council. The self-administered questionnaire was sent out to these organisations and 127 responses were received.

The questionnaire consisted of 18 questions that covered a wide range of issues in the new product development field.

Research findings were based on the responses from the grocery organisations representing the following product categories: soft drinks (12), cereals (7), juice (11), dairy (29), confectionery (25), bakery products (19), health bars (5), ice-cream (10) and desserts (9).

Twelve organisations were selected from the mail-out group in order to conduct a qualitative survey. The participants represented the following product categories: confectionery (5), dairy (4), juice (2) and biscuits (1).

Findings

In order to obtain a profile of the 127 organisations that responded to the mail survey they were first classified by business type. Manufacturing (92) was the largest category followed by distributors (16). There were 11 wholesalers and 6 supplying organisations as well as 2 importers.

The organisations were then classified by the number of employees. Of the organisations in the sample 53 had 1-99 employees, 47 had 100-299 and 27 had 300+ employees. In terms of annual turnover the majority of the organisations were medium size with sales turnover of less than \$100 million.

There were 14 organisations with an annual turnover of \$1-5.9 million, 16 with a turnover of \$6-10.9 million, 38 with a turnover of \$11-50.9 million, 32 with a turnover \$51-99 million and 27 with a turnover of \$100+ million.

Respondents to the mail survey were asked to indicate the steps they followed in their new product development process. The steps listed in the questionnaire were taken from new product development theories.

As so many authors provide different new product development models, the theory used was an amalgamation of the various models that employed the steps most commonly mentioned by a majority of authors (e.g. Urban and Hauser 1993, Kotler 1994, Reed 1997, Cravens 2000, Cooper 1994, Crawford 1994 and others). Table 1 provides frequency of each new product development step based on 8 nominated functions:

Table 1. Frequency of Each New Product Development Step

New Product Development Steps	Frequency	%
1. Idea Generation	120	94.5
2. Idea Screening	66	52.0
3. Idea Evaluation	79	62.2
4. Marketing Strategy Formulation	97	76.4
5. Product Development Strategy Formulation	64	50.4
6. Prototype Development	100	78.7
7. Market Trial	31	24.4
8. Commercialisation	127	100

The marketing manager's role was explored by analysing the integration level between the marketing department and other functional areas within the organisation that directly contributed to the product development process (e.g. finance, production, research, sales).

The highest integration level was found between marketing and sales teams with 50.4%. Only 5.5% of respondents believed that integration with all functional departments involved in new product development process was vital to the success of new products.

Effective interaction between the organisation's functional departments was regarded as very important and confirmed in the quantitative and qualitative findings. Seventy eight percent of respondents agreed with the requirement of keeping the interaction level open.

Table 2. lists key instigators of new product development ideas and concepts. The key instigators according to the findings are marketing and sales managers.

Table 2. Key Instigators in New Product Development

Key Instigators	Frequency	%
CEO	6	4.7
Managing Director	23	18.1
Sales Manager	28	22
Marketing Manager	63	49.6
Research & Development Manager	7	5.5
Total:	127	100

Table 3. shows the importance level of the key factors that impacted on new product development process. It was found that 82.7% of participants stated that "understanding and matching customer needs" to new products was the most important factor in the process. Open communication levels and integrated teamwork were regarded as highly significant elements as well. Flexibility in developing new products was also cited as an important factor.

Table 3. **Importance Levels of Key Factors Impacting on New Product Development Process**

Key New Product Development Factors	Unimportant	Important	Very Important
Integration of strategic plans	5.5%	54.3%	40.2%
Integrated teamwork	0%	53%	46.5%
Open communications between departments	0%	47.2%	52.8%
Understanding and matching customer needs	0%	17.3%	82.7%
Flexible approach to product development	10.2%	74.8%	15%

The way new product development success is measured is discussed by many authors without a consensus. Some authors focus on financial measures, while others prefer to consider so called "soft" measures, i.e. innovation, marketing strategies, expansion into new markets, design superiority and quality.

The research attempted to identify these measures by combining quantitative and qualitative research methods. According to the quantitative results, profits (33.1%), sales growth (30.7%) and market share (19.7%) are the main measures of a new product's success.

A very low percentage (2.4%) of respondents acknowledged the innovation and design superiority as the new product success measures.

The interviews suggested that profits and sales growth were used as the benchmark in judging new product performance. The larger organisations used profits as the key measurement tool, while medium size organisations preferred to use the sales level.

However, all twelve interviewees acknowledged the need for placing more emphasis on innovation and creative marketing programs. By concentrating on innovation, design superiority and strong marketing of new products, organisations will achieve their sales and market share targets.

The individual most likely to review the success of a new product was the company's managing director (63%) and the marketing manager (37%).

Research Limitations

The main limitation of this study was the use of a relatively small sample of respondents (127 out of 600). Additional limitations resulted from the study's measurement process used to generalise research findings across many different organisations.

Conclusions

The study examined a sample of grocery organisations in terms of their product development practices in order to examine how organisations of different sizes implement new product development processes.

It was found that Australian grocery organisations follow a short and flexible product development process designed to adapt to market changes, technological advancements and changing consumer preferences.

The key finding in the study was that the new product development process in the grocery market tends to skip the market trial due to the competitive situation in the market and significant investment in the production of trial products. Larger organisations studied were not able to follow a systematic process due to internal organisational pressures, reduced funds and lack of senior management support. Medium size companies often attempted to follow all the steps of the theoretical new product development process, but due to limited financial and organisational resources could not afford to spend time and money innovating and introducing wholly new products to the market.

The research indicates that what works well for one organisation is not necessarily going to be easily transferred with the same success to another organisation. It would appear that new product development success factors in the Australian grocery market differ from those in other markets because of its unique characteristics.

Research results illustrate that there is no one ideal method of new product development in the grocery market. Nearly 25 per cent of participating organisations confirmed they followed a four-step product development process that according to accepted product development theories is not sufficient.

It is imperative to view the new product development process as strategic in terms of organisational objectives, flexible in terms of response to economic, political and legal environment changes, integrative across an organisation's various departments and on-going in terms of a commitment on the part of the organisation. New products should be considered as an important source of competitive advantage that can allow an organisation to gain market share and make other products more profitable. New product development should be viewed not only as a tool for profit generation, but also as an opportunity to foster innovation, improve product quality overall and provide additional value to the end user.

Most of the grocery organisations in this survey typically expanded their businesses by simply creating new products. It has been suggested in the product development literature and supported by the qualitative research findings that new products not only stimulate business overall, but also create a favourable influence on existing products, as well as motivating staff and boosting their morale.

The pre-development stage of the new product development process is vital, as it is at this stage that fatal mistakes are often made in deciding on a new product's best attributes. The research suggested that many organisations in the grocery market had insufficient market knowledge and hence lacked understanding of a new product's likely potential due to a lack of funds allocated to market research and testing.

Interviews with the leading grocery organisations demonstrated that formal market research techniques, which can determine a new product's attributes, consumers' needs in relation to that product and a positioning strategy, are not fully utilised.

To decrease the uncertainty of new product introductions into the marketplace and to maximise the return on investment of successful launches, it is wise to use market research methods developed to help marketing and product managers to predict the likelihood of a new product's acceptance in the marketplace.

To be successful in new product development, a positive corporate mind-set is imperative. Encouragement and rewards for innovative concepts and ideas should be used as an incentive for all staff involved in the process, not just the marketing and product managers. The overall corporate philosophy on new product development should view the process as part of the investment strategy.

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