NEW PRODUCT DEVELOPMENT AND THE IRISH FOOD SECTOR: A QUALITATIVE STUDY OF ACTIVITIES AND PROCESSES

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Introduction

New Product Development

Many marketing and management strategists such as Grunert et al. (1997) and Schnaars (1994) see the successful development and marketing of new products as the ultimate route to profits and organisational survival. However, the percentage of new products that fail is high and can vary depending on the source and the type of product being examined. It is estimated that firms marketing directly to final consumers need to develop and introduce thirteen new products to ensure one successful one (Fuller, 1994). In the food and drinks sector 90 per cent of new products are reputed to fail in their first year (Traill and Grunert, 1997).

Changing consumer needs, the need for product differentiation, advances in technologies, increased competitive pressure and the shortening of product life cycles have all led to increased levels of new product activity (Buisson, 1995). Arguments against NPD include the high failure rates, high costs, long payoff times and the utilisation of scarce management resources (Traill and Grunert, 1997).

The Irish Food Sector and New Product Development

The evolution of the Irish food industry can be viewed over the past three decades as moving from a focus on managing supply to a shift to a customer-driven culture, according to Kennedy (1998). Different

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strategic development options have been identified to sustain competitive positions that have included product and market development, and the development of 'real' end-user markets (FAS, 1993). In particular the development of consumer products, new products for home and export markets and import substitution, has been recognised as a key strategic option for food firms of all sizes.

The Irish food industry's contribution to the Irish economy is very significant in relation to manufacturing output, exports, employment and integration with the Irish economy through the purchase of raw materials and services. The total value of the Irish food and drinks industry in 1999 was over £IR10bn or 6.5 per cent of national output, 10 per cent of GDP. Exports of Irish food and drink products in 1999 were £IR5.2bn (Bord Bia, 2000: 1). The main exports by sector showed that the dairy and ingredients sector accounted for 33 per cent of total exports in 1999, meat products 29 per cent and prepared consumer foods 19 per cent. In 1998 some 47,000 people were employed in the food and drinks industry and this represented 25 per cent of total manufacturing employment (Tansey and Fitzgerald, 2000: iv).

The lack of customer focus has been identified in the Irish food industry as a major failing and strategic reviews have highlighted the need to become more market-oriented (Forbairt, 1995). The important recurring strands evident throughout these reviews (DAF, 1998a; Bord Bia, 1995; Forbairt, 1995) and from other Irish food sector studies (Nash *et al.,* 1985) have been an increase in added-value levels, an increase in new product activity and a more market-oriented food sector.

The Western European food market, which includes the EU, Switzerland and Norway, is expected to rise to $814 billion in 2002 from $649 billion in 1995 primarily through added-value, not volume (Bord Bia, 1997). There are significant changes along the food supply chain such as the increased concentration within the retail sector and the increased market share of 'own labels'. Information technology has provided retailers with increased amounts of consumer data from which to develop new products, and this may further increase the "own label" share of the food market. Traill and Grunert (1997) suggested that future market opportunities will exist in upgrading product quality, changing consumer demographics, changing consumer lifestyles, health and nutrition opportunities in terms of consumer concerns, and the marketing of ethnic food products.

Defining the New Product

The definition of a 'new product' varies between researchers and can be determined by their research approach, the type of market being investigated, the technology employed or levels of innovativeness. Products can be improved or can actually change customer behaviour such as the first personal computer or Sony Walkman. Degrees of innovativeness are evident from those that are really new, to products exhibiting incremental changes such as food products with new flavours, new pack sizes or alternative cooking methods.

The seminal Booz, Allen and Hamilton Report (1982) identified six categories of newness to the firm and the market, which have since been utilised by various researchers. Craig and Hart (1992) defined 'new' in terms of a product development continuum. Cost reductions or repositioning of products were placed at one extreme, and radically new products at the other. For the firms in the Booz, Allen and Hamilton survey (1982), a mix of these new product categories was generally included in new product programmes. The survey illustrated, among even the largest firms, the lack of introduction of truly innovative products.

New products can be classified from the viewpoint of either the customer or the firm (Song and Montoya-Weiss, 1998). The degree of innovation in new products can also be classified according to how much new learning is required of the consumer in order to use the product (Hisrich and Peters, 1991). Craig and Hart's (1992) NPD continuum has continuous innovations at one extreme and discontinuous innovations at the other. Discontinuous innovations require new consumption patterns and involve the creation of previously unknown products. In terms of defining NPD, the product is deemed "new" by changes in customer behaviour. O'Connor Colarelli (1998) defined a discontinuous new product as the creation of a new line of business, new for both the firm and the market. This model introduced a new dimension in relation to risk. Highly innovative products involve considerable risk due to latent and unarticulated customer requirements and they offer potentially greater risks and rewards to both customers and manufacturers. An incremental product offers risk only to the manufacturer (Schmidt, 1995).

Atuahene-Gima (1996) suggested that a new product, from a market-orientation viewpoint, should be defined from either the customer's or firm's perspective. Grunert et al. (1997) argued that other supply channel members, such as distributors or retailers, also offered the customer's perspective. A product may be new for one

channel member but not for all channel members. For the market-oriented firm it could be argued, it is the customer or end-user, that should define the label "new" rather than the product developer.

Developing New Products

Developing new products is a very complex process with the main difficulties, from an organisational perspective, being the integration of various people or departments involved in product development. This must be balanced with particular industry-specific legislation, a firm's budget restrictions and various other internal or external constraints (Hofmeister, 1991). Booz, Allen and Hamilton's (1982) research highlighted the extent of risk involved in NPD and concluded that only one out of seven new product ideas reached commercialisation stage. This meant that a successful product must not only return its own unique development costs, but also cover the costs of the other six products (Booz, Allen and Hamilton, 1982). Hayes and Abernathy (1980) highlighted this risk in the United States, where, they suggested, managers were attracted to profitable low-risk opportunities as opposed to high-risk opportunities. The fear of failure is obviously a salient factor in NPD programmes and suggests a need for senior management to view NPD as a long-term rather than short-term strategy. Indeed, Booz, Allen and Hamilton (1982) found that a short-term orientation by management was the principal internal obstacle to innovation.

Product development failure rates in business-to-business markets are reported to be lower than in consumer markets (Parkinson, 1982). One reason suggested for this is that strong business-to-business or supplier–user relationships in industrial markets result in the customer having a greater input in the innovation process (Parkinson, 1982). More end-user input in consumer markets may reduce product failure rates and may be a significant source of innovation information, such as in the lead-user system (Von Hippel, 1988).

The New Product Development Process

One of the main reasons put forward for product failure is the non-utilisation of a formal NPD process (Cooper, 1988). The methodology of the process of developing new products has an important influence on the success or otherwise of a NPD project. Gupta *et al.* (1985, 1986) described the NPD process as a multi-stage, multi-disciplinary process, which can be characterised by pre-specified activities and evaluative points.

Traditionally the NPD process has been categorised by a series of sequential stages, following in logical order, whereby an idea was developed through to the commercialisation stage (Bingham and Quigley, 1989). Each function tended to be compartmentalised, and functions within an organisation took over the project following a hand-over from the previous function. During a particular stage specific functions have a major input; at other stages they may only have a minor role. This had drawbacks in that results from different phases had to be returned due to incompatibility with constraints introduced in downstream phases (Hananel *et al.*, 1993).

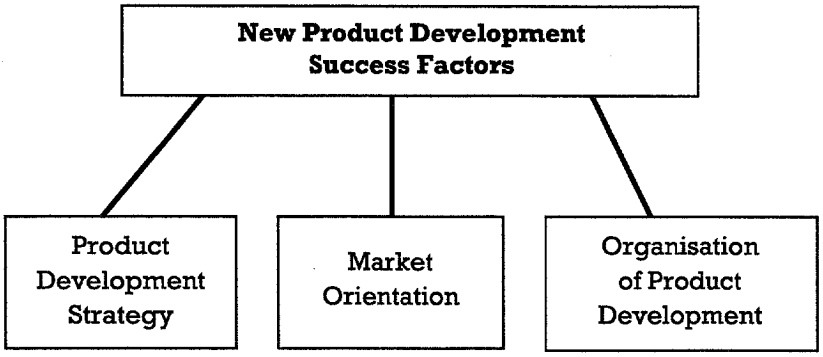
The importance of the NPD process for project outcome has been clearly highlighted by various studies (Cooper, 1994; Booz, Allen and Hamilton, 1982). The main change in the NPD process over the past two decades has been the move from functional and sequential approaches to multi-functional, concurrent approaches (Griffin, 1997). In the food sector a more multi-functional approach to product development recognises the diverse influences on food choice as outlined in various food choice models (Randall and Sanjur, 1981). It has been argued that the traditional step by step process is not adequate in its traditional form and a more multi-functional approach is required, particularly when integration of marketing and R & D is seen as a key new product success factor (Harmsen, 1994; Gupta *et al.*, 1987).

New Product Development Success Factors

Despite the wide range of empirical research on factors that lead to new product success (Harmsen, 1994; Cooper and Kleinschmidt, 1987; Cooper, 1987), the failure rates for new products remain high. The determinants of new product success are complex, with many variables associated with the product, process and the organisation. Much empirical research has been undertaken, across different sectors, using different methodologies, to identify the critical factors that impact on product success or failure (Cooper, 1994).

Harmsen (1994), in a review of NPD success factors, proposed that key factors could be grouped into three categories: product development strategy; organisation of product development; and market orientation, i.e. close market contact during the whole development process (Figure 1). These success factors are consistent across a number of NPD studies (Barclay, 1992; Cooper and Kleinschmidt, 1986).

FIGURE 1: NEW PRODUCT SUCCESS FACTORS



Source: Harmsen (1994: 2)

Cooper (1988) concluded from his *Project NewProd* research that there was a very strong connection between process and outcomes. He found evidence that a 'new product process decision guide' promised significant payoffs. His conclusions illustrated the lack of a systematic formal process in 203 new product projects. He found that no market study or detailed market research was undertaken in 75 per cent of the projects.

The importance of a well-defined new product strategy has been identified across many studies of new product success (Foxall, 1989; Cooper, 1987). There is a strong link between product innovation strategy and performance (Cooper, 1987). Many firms prepare a product innovation charter (PIC) to provide details of a new product strategy (Crawford, 1994).

Cooper (1994) identified eight major drivers to product success. The major driver that separated winners from losers was product superiority. A "superior" product was defined as one which delivers unique benefits and product value to users. Cooper (1994) argued that product superiority was the number one factor influencing commercial success, and that product definition and early predevelopment activities were the most crucial steps in the NPD process. Failure to conduct the right type of market research has also been identified as one of the major reasons for new product failures (Morris, 1993; Booz, Allen and Hamilton, 1982).

Market Orientation and New Product Development

Although market orientation's positive impact on business performance has been widely reported (Jaworski and Kohli, 1993; Narver and

Slater, 1990), the link between market orientation and new product success has only recently become the focus of much research. Narver and Slater (1990: 21) draw on a number of writers when they define market orientation as:

> . . . the organisation culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers and, thus, continuous superior performance for the business

Harmsen's (1994) Danish food industry research compared product development practices with advice offered by product development researchers. Market orientation was given a low priority, with firms eliciting most of their information from direct customers such as retail chains, agents, or industrial customers, and rarely from the end-users. Respondent firms had no thorough understanding of the needs or wants of end-users (Harmsen, 1994). Narver and Slater's (1990) market orientation research concluded that firms that adopted a market orientation, by using resources to understand their customers and competitors, achieved not only higher relative profitability and sales growth but also more new product success.

Research Objectives

The research objectives were (i) to understand the process by which Irish food firms engage in NPD; (ii) to examine whether the food firms have adopted the normative NPD success guidelines; (iii) to investigate whether the food firms approached product development in a market-oriented fashion; (iv) to provide data on current NPD practices in the food sector.

Research Methodology

Qualitative Analysis

A qualitative research approach was used in this research and an interview schedule was designed after consultation with food industry experts. It was pilot tested to identify problems associated with design, ambiguity, interpretation or bias. A key informant in each of 25 Irish food firms was interviewed. A sequential sampling procedure was used, where the sample, as Diamantopoulos and Cadogan (1996) stated, 'was not wholly pre-specified but evolved during the field-

work'. Food industry directories provided by development agencies, food marketing boards and commercial and non-commercial bodies were used to identify potential firms for interview. Firms were selected on the basis of their geographic location, their level of NPD activity, their operation in consumer markets and to reflect the range of activities in the food sector. The interviews were conducted by one person, generally lasted between one and two hours and were tape-recorded. They were transcribed and analysed using the Ethnograph v4.0 computer package (Qualis Research Associates, 1995). Food industry consultations prior to the fieldwork indicated that the confidential nature of the NPD function within organisations meant that it would be practical to interview only one informant. For confidentiality reasons, firms in this research are referred to by number rather than by name.

The interview schedule was in four parts. In part 1 a profile of the food firm was collected; in part 2 the questions related to the food firm's NPD activities; part 3 determined how the food firms organised their NPD activities; and in part 4 NPD and market orientation were the focus of the discussion. For the purposes of this study a new product was defined as "one that is viewed as new by the customer in relation to previously supplied products and can be radically innovative, i.e. newly introduced or a modified product in terms of improvements such as functionality, ingredients, packaging or brand extension".

Results and Discussion

Profile of the Food Firms

Twenty-five food firm interviews were completed between November 1998 and October 1999. The food firms ranged from the very small (five employees and a turnover of £50,000) to the very large (3000 employees and a turnover of £2.3bn). Most of the firms operated in both industrial and consumer markets and the majority had been in business for over 10 years. The products included a wide range of consumer dairy products, farmhouse cheeses, bottled mineral waters, confectionery, ready meals, sauces and soups, organic products, processed meats, ready-prepared vegetables and added-value sea foods.

Strategic Importance of New Product Development to the Firms

The importance of NPD to the strategic development of their organisations was repeatedly mentioned by respondents. They indicated that its importance within their food firms would increase over the next number of years:

> 'NPD is very important [to our company] as we are coming from a traditional based industry. We are coming out of an area with commodity type products so in order to differentiate we have to look at other areas. It [NPD] is very important to the organisation.' (market development manager, Firm 2)

> 'Innovation is part of the firm's mission statement.' (NPD consultant, Firm 3)

> '[NPD is] an ever growing factor. A recognition that customer needs and demands have changed substantially.' (NPD manager, Firm 5)

> 'It's probably one of the most important parts of the business at the moment because things are changing so much that you have to keep developing new products all the time and cater for people's needs all the time; so we would constantly be developing something new.' (managing director, Firm 12)

> 'NPD is our absolute number one priority in terms of strategic development because it is the only thing that differentiates us.' (managing director, Firm 14)

Levels of New Product Development Activity

Most firms felt that they had a good track record in NPD, with the larger firms working on an average of 15 new product projects concurrently. Firm 10, for example, would normally begin with about 100 concepts that would be reduced to about five actual projects. One of the larger and longer established firms (Firm 9) introduced on average about 50 new products each year. These consisted mainly of additions to lines and new products for export markets.

Without exception the role of retailers in dictating NPD activities was evident across respondents:

> 'We have to move with the market and a lot of that is not just that it is demanded from the marketplace but within the marketplace

> with retailers dictating or directing where we should be going.' (technical manager, Firm 1)

> 'Supermarkets want one supplier of certain types of products and part of the supplier assessments is R & D and the ability to innovate and come up with new products so they expect a firm they go with to have enough innovation to keep the products moving onto the shelves.' (NPD consultant, Firm 3)

The types of products developed were mainly revisions or modifications of existing products and line extensions in particular. The NPD budget varied depending on the size of the firm, ranging from £500 to £2million for those that had a budget mapped out. Firm 14, operating in a very competitive market dominated by large international competitors, launched ten new products over a five-year period to differentiate its products from those of its competitors.

The New Product Development Process

Generally firms did not have a NPD strategy outlined, but suggested that it was something that would be required in the future. A new product strategy statement was missing in most of the smaller firms (Firms 20, 21, 22, 23). One respondent from a larger firm stated that the NPD strategy was contained in the organisation's marketing plan and the main areas of focus were then passed on to the research and development department (Firm 5). There was no multi-functional approach to developing the firm's new product strategy.

For those firms that followed a stage gate product development process, the balance between being formalised or too informal was highlighted:

> 'We don't want to take NPD to a stage where it is too formal where you have to sign four different forms for each stage.' (technical manager, Firm 1)

> 'NPD is quite formalised. At this level it has to be. The amount of money that would be involved is quite high.' (technical manager, Firm 1)

> 'We are following Robert Cooper's stage gate process with a variation on it. We tend to have less stages and less gates.' (new product manager, Firm 16)

Although some of the smaller firms also followed a stage gate process it tended to be more flexible, with documentation on new product outcomes rather than actual documentation of the process and stage gate outcomes. Other firms had more extensive documentation:

> 'All the stages from the initial samples right through to product launch are documented. We have a manual which basically outlines the whole steps and the process.' (NPD manager, Firm 4)

Larger firms such as Firms 5 and 18, which were subsidiaries of multinational food firms, had very strict monitoring of the NPD process, particularly to keep an element of control over the process and to examine the financial aspects:

> 'A log diary of everything every day is kept including how many hours are spent on each project and we have to produce a monthly report saying project by project where it is at, what the next stage of development will be, what any delays are, when we hope to launch the product and how many hours have been spent in the calendar month on the project.' (NPD manager, Firm 5)

In terms of generating new product concepts, all firms generated ideas through management, sales persons, competitors and trade shows. Only a small number used end-users in concept modification (Firms 11, 14). End-users were not used for the generation of product ideas. Firm 14 used end-users for sensory evaluation of competitor products during the NPD process and had its own external taste panel.

Organisation of New Product Development Activities

Respondents acknowledged that the organisation of NPD activities in their firms was not very well executed. The smaller firms did not have an NPD department or manager but generally had an employee with NPD responsibilities, who often had other responsibilities. It was seen as hard to justify employing somebody full time in NPD (Firms 3,16).

One of the larger firms had restructured its product development operation so that a new venture team was set up consisting of personnel from different areas in the firm (Firm 1). This team would lead NPD throughout the entire organisation. The venture team ultimately decides in which physical location a new idea can be developed into a new product for the firm. This creates a certain amount of competition among the employees in the different manufacturing locations within the group.

Firm 9 organised its NPD activities around its markets with a different product development team for each market, while the larger firms (Firms 11, 16 and 18) had NPD managers for each food division within the organisations. Firm 18 had a product champion for each product to set up meetings, to evaluate each step of the NPD process, and to keep all team members aware of developments.

Most respondents saw the integration of the marketing and technical functions as important and levels of integration were perceived to be quite high:

> '. . . you've got to be constantly tweaking the technology against consumer reaction. You have to keep going back and forwards all the time. You have to keep the customer's voice present all the time.' (NPD manager, Firm 16)

The respondent from Firm 11 contended that the marketing and technical staff came from different backgrounds and that often the marketing group felt that a project might fail even though it was still worked on by research staff.

There was good support from senior management in general and respondents felt that they played an active role in decisions concerning the viability of new product projects. In some firms the chief executive and all senior members of the organisation sat in on all NPD meetings (Firms 10, 11). Personnel from the firms went on NPD courses, particularly to develop new skills and acquire new information for product development (Firm 10).

New Product Success Factors

The majority of respondents saw flexibility as a key new product success factor, coupled with effective communications within the organisation, including good marketing and technical cross-communications. Product success rates varied from 33 per cent. In Firm 3 to 70 per cent in Firm 4 and 80 per cent for Firm 25, which produced for the organic sector. Smaller firms (Firms 21, 22), claimed higher success rates due to close interaction with customers. This could be what Harmsen (1994) refers to as "mere order taking", rather than actually developing new products. The respondents from Firm 4 and Firm 10 felt that their high success rate was mainly due to the successful integration of their marketing and technical personnel and the subsequent exchange of information. One of the more successful firms felt that planning was the key ingredient in their devel-

opment of successful new products. Speed to market and reacting to customer requirements were important to Food Firm 8:

> 'Generally we would be able to react quite quickly to a customer's wishes – when I say customer I mean retailers or one of the catering groups – and we are fairly flexible.' (product development technician, Firm 8)

The respondent from Firm 11 stated that its relationships with the major retailers was a major factor in successful NPD and that it could get its product distributed very early due to extensive national distribution and advertising. Products that had failed in Firm 11 had done so because they were, according to the key respondent, "mediocre" and not differentiated from existing products on the supermarket shelves. Having a new product champion to guide a new product through the process was also seen as a critical factor in terms of project success or failure in that firm. Firm 9 attributed its NPD success to having a good new team in place that was well trained.

In terms of new product success, the smaller firms emphasised that quality was a key:

> 'Quality of the product would be the main thing. We try and keep them [products] more to a home-made type of taste than a mass-produced product.' (managing director, Firm 12)

Firm 25 attributed its new product success to identifying accurately new product opportunities targeted at identified customer needs and then being first on the market with a quality product at a reasonable price. None of the respondents mentioned Cooper's (1988) major driver of product success, delivering unique benefits and product value to users, as a key NPD success factor.

Market-Oriented New Product Development

All respondents felt that their firms had a reasonable understanding of the needs of their customers, but felt that it was an activity that they needed to do more work on. They thought they should conduct more analysis of end-user needs. Firm 9 felt that they was market-oriented and that it only engaged in NPD where it had identified an expressed market need. Generation of information through food marketing agencies and the retailer was widespread, with a high proportion of the larger firms buying in market information. Retailers played an important role in NPD within the firms interviewed. Retailers were used to generate information on end-users. Although end-users were not

widely used by the respondent firms to generate new product ideas, they were utilised further down the NPD process, particularly when it came to evaluating products already marketed by competitors. However, at this stage the end-users were presented with an actual product rather than a concept:

> 'We have very strong links with all the Irish and United Kingdom multiples and it is very important to us to have good links into their product development team and technical departments, and get a feel for what they are looking for.' (technical manager, Firm 1)

> 'We do not use end-users to generate new ideas or product concepts. We expect retailers to know better than we would, because that is their business and they tell us what they want. They know a product is going to sell. Their word is etched in stone.' (NPD consultant, Firm 3)

> 'When we developed the prototype we would go back to the end-user to test it. We wouldn't bypass the consumer. But the idea would come from the retailer . . . generally we do not get ideas from consumers.' (new product development manager, Firm 16)

> 'I very rarely use end-users. I should, but I don't.' (managing director, Firm 12)

> 'We do not approach market-oriented product development in a structured way. I feel that what we have is quite informal and it needs to be developed and structured.' (managing director, Firm 15)

Firm 14, operating in a very competitive arena dominated by larger foreign players, acknowledged the role of end-users in product development and also questioned whether retail buyers would be able to provide direction for innovative products:

> 'Market-oriented means that the consumer is calling the shots as in consumer-led and market-led. I don't treat retailers as end-users. I think the consumers at the end call the shots. If you had a frozen food buyer, I thought they would be an expert in frozen foods. Not at all and they don't claim to be because they are too busy. If I had not been consumer-led, maybe all the products we have launched would have failed.' (managing director, Firm 14)

The advent of centralised distribution has also increased the pressure to develop new products:

> 'We need new products to remain competitive. Distribution is becoming more important with supermarkets cutting out distributors and doing it [distribution] themselves. If you don't have a new product you are out of the chain.' (managing director, Firm 13)

On the other hand, one respondent recognised the role of the voice of the end-user in NPD:

> 'We are a very small group of people, the people who make the decisions, and we are very industry-oriented. We are not normal consumers so you have to go out and talk to your ordinary consumer.' (senior product manager, Firm 11)

Firms felt they approached product development in a market-oriented fashion. The respondents felt that they understood customer needs even by communicating with the retailer. Some respondents felt that working closely with their retail customers increased new product success rates:

> 'Once we decide we are working on a product it's with the endorsement of the customers, it's in their interest as it is in our interest to take it to the market place because you are putting a lot of resources and a lot of time into it.' (NPD manager, Firm 4)

One successful larger firm approached their markets in a more market-oriented way, utilising its retail customers and end-users in product development:

> 'We would use the end-user particularly when at the design stage when you are not too sure what the end product is going to be. The use of retailers tends to be more when you are ready to finalise the product.' (NPD manager, Firm 5)

> 'I think it [understanding the consumer] would be beneficial because when you are doing product development, you really have to see it from the end-user's point of view.' (NPD manager, Firm 16)

Firm 10 used end-users in its industrial NPD where it would develop new concepts, but tended not to use end-users on the consumer side of the business. Firm 8 suggested that listening to the end-users was an activity that it had paid little attention to, and indicated that if it had listened more to end-users that it would have had a higher success rate over the past 10 to 15 years. The respondent from Firm 9 suggested that his firm had stopped using consumer groups due to the expense involved and the time utilised in organising consumer sessions. In par-

ticular the need to get a representative group of consumers meant that the expense incurred would be quite high.

All those attending new product meetings in Firm 11 were responsible for generating new ideas or concepts, but the firm also used focus groups to generate ideas. Retailers were used by Firm 11 only at the end of the product development process, but it used end-users throughout the process:

> 'End-users are involved all the way through. If we came up with an idea of low-fat products we would go out to focus groups early on and maybe ask people all about the areas of low-fat and then move on to develop a product.' (Senior product manager, Firm 11)

Competitor Analysis

Firm 9 personnel kept an eye on their competitors:

> 'At least once every year we would do a benchmarking exercise of our top selling varieties versus our competitors' top selling varieties to make sure we are not slipping in quality or they are not improving in quality.' (research and development technical senior manager, Firm 9)

Firm 18 evaluated and kept extensive documentation on all competitors' products. The respondent from Firm 7 acknowledged that his firm was not truly market-oriented. In its industry there were market opportunities to be exploited but it could not take advantage of these due to stronger competitors.

General New Product Development Issues

Respondents contended that there needed to be more state assistance for NPD and agreed that more resources were required for NPD to increase success rates and for firms to remain competitive. The respondent from Firm 9 suggested an increase in research and development as a percentage of turnovers from 1 per cent to 4 or 5 per cent in Ireland. The respondent from Firm 16 suggested than although NPD is seen as a key element in a food firm its true worth is not really recognised, particularly in sectors where margins are low.

The respondent firms used grants available from state agencies as a means of funding NPD research, hiring product development personnel and sending personnel on training courses. The need to move away from commodity products through product development was seen as a priority for NPD practitioners. One of the difficulties with

product development, as suggested by the respondent from Firm 11, was scale, particularly in relation to the very large European food manufacturers. These firms had larger research and development budgets and possessed pan-European brands. Smaller firms were limited in the product development they could undertake due to lack of resources:

> 'The smaller firms don't really have the resources to take on a new product, that more than likely is not going to work at the end of the day.' (managing director, Firm 13)

Conclusions

This paper reports on qualitative research carried out on NPD activities and processes among a sample of Irish food firms. NPD remains a key competitive issue for these food firms as they enter an increasingly competitive environment, with technology changing rapidly and consumers increasingly searching for variety.

This research has shown that the respondents recognised the importance of NPD to their firms' growth and survival. They felt that the NPD function could be carried out more effectively and efficiently within their organisations than it currently was. In terms of the normative guidelines for new product success as identified by Harmsen (1994), the firms in this sample had not adopted these in relation to their NPD activities. They did not have an explicit NPD, strategy and documentation of activities was low. Most firms did not usually approach product development in a market-oriented fashion in terms of utilising the end-user in the process. Although firms recognised the importance of the retailer to NPD the end-user was not integrated into the NPD process. This finding concurs with Harmsen (1994). However, the respondents did acknowledge that the voice of the customer was important in the NPD process, and this may gain increased attention from firms in the future. When the end-user was used it was for evaluative purposes rather than at the early stages of product design. One firm integrated very closely with end-users due to the very competitive nature of its markets. These market were dominated by very large multinational organisations, and innovation was a key factor driving consumer purchase behaviour.

In terms of NPD and the Irish food sector, the need to move away from commodity products and add value to primary raw materials has been well recognised. As Schnaars (1994) argued, firms do not need to develop radically new products or be first on the market. However,

if they imitate or produce 'me too' products, these need to be superior to those already on the market. This concurs with Cooper's (1994) main driver of NPD success: a product that offers unique benefits to the user. Levitt (1966) referred to imitative products that are superior to the original ones as 'innovative imitations'. He argued that this innovation strategy necessitates the integration of the end-user with the product development process and a more market-oriented approach to product development.

Further quantitative research would be beneficial to generate more NPD information across different sectors within the food industry. It would also be useful to examine the differences in NPD activities and processes between small, medium and large organisations. For the firms in this study, research to establish the best mechanism by which the end-user can be integrated into the NPD process would be very useful. In the food sector in general this would entail linking market and sensory information generated by the end-user, and identifying desired product attributes required by specific target markets.

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