CHAPTER 5: CONCEPTUAL FRAMEWORK

5.1 Introduction

This chapter presents the theoretical framework used within this research, for the purpose of exploring the management of packaging within food and drinks firms, and the linkages between packaging and product development.

Chapters Two and Four provided detail on the critical importance of packaging, both for the product itself, and more generally, as a marketing tool. Moreover, Chapter Two, Section 2.2.4, revealed the significance of recent developments in packaging. However, the impact of packaging's importance, and its unique roles, on the development of new products has not been fully addressed within the existing literature (Simms and Trott, 2010).

The review of NPD models in chapter Three revealed that current models focus on the development of the core product; while packaging activities are essentially overlooked. The existing conceptualizations within both the FMCG industry and food and drinks sectors are dominated by stage or activity based models. These models are limited in terms of their failure to connect NPD to the production process, provide insight into NPD inputs (particularly the inputs of packaging suppliers), and account for the packaging absorptive capacity of firms.

The first section of this Chapter focuses on the current emphasis on packaging within the extant literature. The chapter then draws upon a number of areas of literature in order to develop the unique framework which forms the basis for this study. This framework provides a new perspective: bringing the NPD literature to bear on the subject of packaging. In particular, it draws together theory on key inputs into the NPD process (with a particular focus on process industries and the food and drinks sector), the literature on absorptive capacity, and process development. This is illustrated in Figure 5.1, which summarises the key aspects of the existing literature drawn upon within this study.
5.2 Marketing Perspectives on Packaging

Chapter Four highlighted that a number of definitions of packaging have evolved in the literature, based on its core roles (e.g. Frey and Albaum, 1948; ILDM, 1993; Stewart, 1996; Issues Paper, 1997; Lee and Lye, 2002; Ampuero and Vila, 2006). While differences exist between these definitions, three key roles of packaging with regard to products have consistently been highlighted (Simms and Trott, 2010; see also appendix 5.1): protection, containment and identification. However, it is clear that packaging actually performs a much wider variety of roles or functions (Table 4.4). And more widely within the literature, it becomes clear that packaging is relevant to, and spans the boundaries of, a number of marketing disciplines:

- The marketing communications literature has provided insights into packaging’s ability to communicate with consumers (Nancarrow et al., 1998; Underwood and Ozanne, 1998); how it can influence consumers’ perceptions and evaluations of products (Dick et al., 1996; McDaniel and Baker, 1997; Raghubir and Krishna, 1999; Rettie and Brewer, 2000); and how it can be used to gain their attention (Underwood et al., 2001). Indeed, packaging has a powerful effect on consumers at the point of sale (Welles, 1986; Phillips and
The brand management literature highlights packaging's importance as a brand tool (Underwood and Klein, 2002; Underwood, 2003), and ability to differentiate products in the eyes of the consumer (Wells et al., 2007).

The distribution management literature has focused on packaging’s key role within the supply chain and as a logistics tool (Johnsson, 1998; Bjarnemo et al., 2000).

The importance of packaging in terms of the organization’s environmental responsibilities and commitment to sustainable marketing has also been documented in the literature. This highlights that packaging’s traditional key roles must be balanced with these new environmental concerns (Kassaye and Verma, 1992; Prendergast and Pitt, 1996). Indeed, in the coming years, there is likely to be an increasing emphasis on this aspect of packaging within the literature, particularly with new government initiatives increasingly placing responsibility for disposal and waste on the brand owner.

By drawing together this diverse literature, it becomes possible to develop a clearer understanding of the powerful nature of packaging as a marketing tool, and recognize that packaging is a critical part of the product offering, which should be much more highly regarded within all areas of marketing. Figure 5.2 attempts to conceptualize this by illustrating the different disciplines of the marketing literature which packaging covers. As the preceding chapters have detailed, whilst packaging is associated with many key aspects of marketing, it is most strongly associated with the product; indeed, it is often integral to it, and inseparable in the mind of the consumer (Silayoi and Speece, 2004). The development of new packaging should therefore be central to the NPD process.
In the context of the FMCG industry, packaging has a unique role to play as part of the product, due to the roles it performs for the core product. However, the impact of its important – indeed, unique - role on the development of new packaging has not been fully addressed within the existing NPD literature, largely due to the lack of attention the FMCG industry and in particular, packaging have received. The following sections draw together the theory on packaging and NPD, and develop a theoretical framework that forms the basis of this study.

5.3 The Role of the Consumer

The existing literature on NPD has highlighted the key role of customers in the development of new products (and in the food industry; Section 3.6.2), as well as understanding their needs, which is key to successful innovation (Nambisan, 2002). Indeed, the importance of understanding the market and undertaking research is recognized by successful companies (Cooper, 1999), and it has also been found that organizations will have a better understanding of how to focus their NPD activities if they have a clear focus on the market: including needs, wants and preferences (Calantone and Di Benedetto, 1989). Thus, a key challenge for organizations is to
improve their understanding about target customers’ needs and wants, in order to improve their products (Narver et al., 2004).

When it comes to the development of product packaging, consumer involvement is clearly of great importance, particularly due to the ability of packaging to affect satisfaction levels. Thus research is required to ensure that packaging is consumer friendly, in order to guarantee effective product performance. This would involve considering a number of elements that may contribute to overall satisfaction levels, such as openability, reclosability, carrying, and dispensing facilities (Lee and Lye, 2002). This is particularly important when we consider that in the case of low involvement products, the packaging can effectively become the product in the eyes of the consumer (Silayoi and Speece, 2004).

Indeed, Ahmed et al. (2005) suggest that it is necessary to look at product/package opportunities holistically (produce + package + equity) to ensure an effective combination for the consumer; accordingly, considerable consumer-based research may be required to highlight effective opportunities and solutions. Furthermore, consumer input is also required in order to develop packaging that communicates effectively with the consumer, and positions the product appropriately in their mind (Simms and Trott, 2010).

Research is also required to uncover how packaging may affect consumers and their choices in a number of other respects. First, as detailed in chapter four, packaging plays an important role in influencing consumers’ perceptions of a product in terms of its quality, value and position in the marketplace. Therefore, research can be undertaken with consumers to develop understanding, and explore opportunities with which to define the structural and graphic design of the product and package, so as to ensure correct positioning (Ivanez Gimeno, 2000; cited in Ampuero and Vila, 2006).

While the NPD literature recognizes that products developed with their involvement have a greater chance of success (Ciappei and Simoni, 2005) and can help avoid product failure or delays (Osbourne, 2002), in the case of packaging, its role in success effectively reaches a different level. Although this literature, to some degree at least, recognizes that the customer has a number of roles in NPD (Nambisan, 2002), in the case of packaging, the role of consumer research must be expanded further, to reflect its even more critical role in product success: due to the reality that
packaging effectively communicates with the consumer, and has an important effect on their choices in the retail environment (Grossman and Wisenblit, 1999; Prendergast and Pitt, 2000; Wells et al., 2007).

Based on the preceding discussion, the following proposition is generated:

**Proposition 1:** The development of packaging will require the incorporation of the consumer into the NPD process.

It should be noted that this consumer input may be inputted into NPD directly through research, or may come from retailers, who often provide consumer information to manufacturers in this sector (Hoban, 1998; Parr et al., 2001). Indeed, in the case of own brand products, this is arguably more likely to be the case.

### 5.4 The Role of the Distribution Chain Members

The NPD literature highlights that undertaking activities to develop a better understanding of the market, users, and acquiring knowledge, is key to company success in NPD (Di Benedetto, 1999; Calantone *et al*., 2002; Rogers *et al*., 2005). However, while the traditional focus of research is on the end customer and user of the product, a wider range of data sources for ideas and information may enhance the likelihood of new products being created and introduced (Rochford and Rudelius, 1992); and it is also clear that information requirements are higher for more innovative products (Davis, 1993; Nijssen and Frambach, 1998). Thus while focusing on the consumer is critical, there is also a need to incorporate a wider perspective. When it comes to packaging, this is particularly pertinent, as the specific packaging of the product is what most channels members handle (Section 4.4.2.9).

Within the existing NPD literature, Saren and Tzokas (1994) provide some insights into the need for a wider perspective. They highlight risks associated with a customer-only focus, arguing that to concentrate merely on the consumer and manufacturer will lead to a product being viewed in isolation from:

- its context;
- the way it is used;
- the role of the customer-supplier relationship.

This in turn contributes to misleading views on new products. From this, Saren and Tzokas (1994) developed the tripartite concept. This approach highlights the reality
of any product’s situation: product developers and testers need to recognize that a product is viewed differently by channel members than by end-users; therefore, a focus on the end consumer is likely to be limited in many respects. More widely within the literature, there is already some indication of the importance of forming collaborative relationships with channel partners as a strategy for firms to improve their performance in the grocery sector (Hyvonen and Tuominen, 2007). Indeed, Srivastava et al. (1998) emphasised that: ‘Best products do not necessarily win while the best-networked firms usually do’; while Simpson et al. (2001) and Spekman (2002) illustrate how manufacturing, distribution and retailers have increasingly recognised that the management of their channel activities offers considerable opportunities for firms to differentiate their products, reduce costs, and add value for their customers.

It is necessary to develop the principle of this concept further than the current literature reflects, due to the key role of packaging in the distribution and retailing of the product. Whilst packaging is of significance to each member of the distribution chain (Simms and Trott, 2010; Rundh, 2009; Bowersox et al., 2002), it is of particular importance to the retailer. Packaging can affect key retailing decisions and issues, which include allocation of shelf space, in store displays, and merchandising (e.g. Mulhern, 1996), as well as transport and storage of the product. Hence it is critical to consider the position of retailers, and the environment in which the product will be sold, in the development of packaging.

This raises further issues that must be considered, such as the likely positioning of the product within the retail space, the amount of actual space that will be available for it, the type of display the product will be in, and the likely visibility of the product. Developing an understanding of the retailer’s perspective will provide valuable insights. When the context of the retail environment, in which consumers are exposed to thousands of products and a wide variety of stimuli (Schiffman and Kanuk, 1994), and packaging’s important role in grabbing their attention (Sara, 1990), are all taken into consideration, the potential value of this research for future packaging development becomes evident.

Incorporating the perspective of the retailer is not just important in ensuring that the product performs effectively in the store. As a result of the increasing power of retailers (Sparks, 1993; Burt, 1993; Corstjens and Corstjens, 1995; Dawson, 2000; McGoldrisk, 2002; Fernie, Moore and Fernie, 2003) within innovation studies, it has
become ever more important to consider their role (Sparks, 1993; Burt, 1993; Corstjens and Corstjens, 1995; Dawson, 2000; McGoldrisk, 2002; Fernie, Moore and Fernie, 2003). Indeed, as shelf space is increasingly highly fought over, satisfying the needs of powerful, demanding retailers is critical to branded products reaching their shelves (Corstjens and Corsjens, 1995). Hence in the development of packaging, it is important to establish and consider their acceptance criteria for new products (Luo et al., 2007). Taking account of this may not just affect their willingness to stock the product, but also the positioning they provide for it.

The above discussions provide the rationale for incorporating retailers into the new packaging development process, which forms the third principle for the conceptual framework, and the following proposition:

**Proposition 2:** The power and influence of the retailer results in a need to consider the retailer, and the impact of packaging changes, on the retailing of the product.

### 5.5 The Role of the Supplier

The above discussions have identified the important role of the retailer and consumer in the development of packaging. However, the network perspective on NPD reveals the potential input of a number of different external groups into the process (Chesborough, 2004; for a complete overview, see Pittaway et al., 2004). Within process industries, research has identified the importance of supply chain collaborations to R&D and innovation (Cantista and Tylecote, 2008, Sahay, 2003, Soosay et al., 2008), and importance of the chain-like structure (Tottie and Lager, 1995). Research has found that supplier-customer relationships play a particularly important role in NPD (Petersen et al., 2003; Chung & Kim, 2002; Lambert, 2008; Wynstra et al., 2010), which is also true in the food and drinks sectors (Section 3.6.2).

Suppliers are playing an increasingly important role due to the widely dispersed nature of knowledge within industries (Freeman, 1991; Powell et al., 1996; Grandori and Kogut, 2002; Christensen, 2006). Furthermore, products are becoming increasingly complex: no one firm can master all the knowledge required to design a product, and manufacturers therefore have to rely on suppliers’ specialist capabilities. Developing closer relationships thus allows meaningful input into
development (see Leifer et al., 2000), and access to new knowledge spanning different technological domains (Zirpoli and Becker, 2011), which in turn can aid in the development of new ideas (Biemans, 1991). Suppliers have therefore adopted a larger role in the development of these modules or components, across a range of industries (Section 4.6), reflected in increasingly close relationships (Lambert, 2008; Wynstra et al., 2010).

When it comes to the development of packaging, suppliers are playing an increasingly important role (Hollingsworth, 1995; Galazzi and Venturi, 1996), and their technological developments have had an important impact within the industry (Section 2.2.4). Based on this, the following proposition is developed:

**Proposition 3:** Packaging suppliers, and their technical capabilities, will play a key role in the development of packaging.

Whilst suppliers can make an important contribution to development and the creation of new technologies, the growing body of literature on absorptive capacity (Section 4.6.1) reveals that the inputs of these suppliers is dependent on the customer organisation’s degree of internal capability and knowledge. This capability moderates their ability to identify, learn about, value, and apply a new externally developed innovation (Tsai, 2002; Verona, 1999; Abecassis-Moedas and Mahmoud, Jouini, 2008; Huber, 1991; Kim, 1988; Kedia and Bhagat, 1988; Cohen and Levinthal, 1990; Brennan and Turnbull, 1999; Ford and McDowell, 1999; Ritter, 1999). Hence in this study, the ability to benefit from the technologies developed by suppliers will depend upon the degree to which the firm has retained relevant internal expertise (beyond the label and graphic design aspects of packaging). It will also depend on their (related) ability to change systems in order to incorporate this new knowledge (Section 4.6.1). Hence:

**Proposition 4:** The level of input and involvement of suppliers into packaging development will be dependent on a food and drinks firm’s internal technical packaging capability, due to the impact of this on packaging absorptive capacity.
5.6 The role of the design consultancy (agency)

The increased role of suppliers in NPD is a feature evident across many industries. However, in the case of packaging development, the involvement of design agencies is more unique feature (Section 2.3.2). The results of the preliminary research with Chesapeake indicated that they performed an important role.

Design has an important impact on consumers’ perceptions of quality, ease of use, and performance of products (Creusen, 2011). The importance of packaging design specialists is unsurprising, and is a consequence of the significance of packaging design in the positioning of products (Section 4.2.1). Existing research has identified the importance of this distinct activity in R&D and innovation (e.g. Perks et al., 2005; Walsh, 1996). These members of the team are important not just in the initial stages of product design (e.g. designing the aesthetics, symbolic and functional positioning, and ergonomics; Creusen and Schoormans, 2005), but right through to the manufacturing phase, where they can help solve problems (Abecassis-Moedas and Mahmoud-Jouini, 2008).

At a simple level, design incorporates the product’s function and form (Hoegg, 2011; Townsend, Montoya, and Calantone, 2011). However, design activities are much broader than this, incorporating aesthetics, visualization, technical skills (Abecassis-Moedas and Mahmoud-Jouini, 2008) and sustainability (Esslinger, 2011). Designers can also drive innovation (Verganti, 2006): they can be important in both technological innovation and non-innovative activities; designing products from either a user approach, or more radical design-driven approach (Verganti, 2011).

That a number of firms choose to outsource packaging design activities arguably reflects the fact that the management of designers has been found to present a unique challenge, when compared to other NPD team members (Munsch, 2004). Hence outsourcing design can be beneficial to creative initiative (Munsch, 2004). Designers can gain freedom by being independent from the business (Ravasi and Lojacono, 2005, p. 59); and outside designers bring a diversity of ideas and views considerably beyond an internal corporate perspective (Abecassis-Moedas and Mahmoud-Jouini, 2008).
The framework presented in this chapter incorporates the idea of packaging specialists playing a key role:

**Proposition 5:** External design consultancies, or agencies, will play a critical role in the development of packaging, due to their specialist capabilities.

### 5.7 The Influence of the Production Process

The preceding propositions have focused on inputs into the NPD process; but the final aspect of the conceptual framework differs, in that it is focused within the firm: specifically, on its production line and equipment.

The literature on process innovation highlights the important link between product and process development, and in particular, the impact of product change on the production line (Section 4.5.1). Lager (2000) and Lager and Blanco (2010)’s research has highlighted the cost intensive nature of process industries, and the associated importance of being cost-effective in production. Changes to the product can incur a high capital equipment cost, and may impact on fragile unit margins. Furthermore, Utterback and Abbernathy’s innovation lifecycle (1975) identifies the cost orientation in many mature industries, such as the packaging and FMCG industries, where price based competition is high. This focus on cost can shift the balance of innovation towards efficiency, at the expense of a longer-term focus: leading to a focus on exploitative activities, crowding out more significant innovations (Benner and Tushman, 2002). This creates pressure on R&D to improve the product and production process in order to lower costs over time, which can stifle more significant innovation.

Linking the focus in incremental developments to the literature on organizational capabilities highlights the differences in organisational capabilities and environments when developing radical and incremental innovations. Incremental innovation reinforces the capabilities of established organisations, while radical innovation forces them to ask a new set of questions, draw upon new technical and commercial skills, and employ new problem-solving approaches (Burns and Stalker, 1966; Hage, 1980; Ettlie, Bridges, and O'Keefe, 1984; Tushman and Anderson, 1986). This leads to an increasingly incremental focus in established organisations (Levinthal and March, 1993; Benner and Tushman, 2003), which can be further exacerbated when the organisation seeks product improvements through market research, and meeting
existing customers’ needs (Christensen and Bower, 1996; Trott, 2001; Christensen, 1997). The combination of these factors promote an environment that leads to radical product innovations being overlooked in favour of more incremental process developments, that deliver benefits for existing customer groups. In the food industry, this situation is exacerbated by powerful retailers’ emphasis on costs. Hence:

**Proposition 6:** The process change costs associated with packaging changes will result in an avoidance of new developments that impact on the production line, and a subsequent focus on incremental and customer-driven packaging development.

With respect to this proposition, it is also important to note links to absorptive capacity: research has suggested that a lack of internal capability may result in firms not being able to foresee lower cost ways of changing production when assessing a new innovation (Section 4.6.1).

### 5.8 Development of Conceptual Framework

In light of the above, it is clear that the development of packaging requires multiple inputs, from consumers, consultants (or agencies), the retailer, and suppliers. With respect to the latter, this input is dependent on the firm’s absorptive capacity. It is also clear that packaging development is linked to the production process. This is conceptualised in Figure 5.3, which captures the preceding discussions, and links this to the propositions (in brackets).

The key propositions are based on the following:

1. Developing new packaging requires the consideration of customers’ needs (Di Benedetto, 1999; Calantone *et al*., 2002; Nambissan, 2002; Rogers *et al*., 2005; Silayoi and Speece, 2004; Ahmed *et al*., 2005).

2. Packaging development needs to incorporate retailers (Saren and Tzokas, 1994; Simms and Trott, 2010; Rundh, 2009; Mulhern, 1996).

3. Suppliers’ technical expertise is important to the development of new packaging (Tottie and Lager, 1995; Petersen *et al*., 2003; Chung & Kim, 2002; Lamb, 2008; Wynstra *et al*., 2010).

4. The input of suppliers depends upon a food and drinks firm’s internal packaging capability (Tsai, 2002; Verona, 1999; Abecassis-Moedas and Mahmoud, Jouini, 2008; Ford and McDowell, 1999).
5. Design agencies provide an important input into packaging development (Munsch, 2004; Ravasi and Lojacono, 2005).

6. The production process will constrain technical packaging development (Lager, 2000; Lager and Blanco, 2010). Through combining these areas of the literature, a new perspective on packaging development is developed.
Figure 5.3: Conceptual Framework. Note that (a) and (b) indicate that consumer input may come directly into development or through the retailer.

Key:

This input may come directly (a), through the retailer (b), or combined.
5.9 Conclusions

The conceptual framework presented in this chapter adopts a different approach to conceptualizing NPD in the food and drinks sectors, with a focus on packaging. The existing stage based models evident within the literature fail to capture these critical elements when applied to packaging. In particular, they fail to capture important external inputs into the development process.

Using the framework presented to understand the activities of firms will generate new insights, which are not presently achievable from the existing linear models. Furthermore, when considering the development of packaging, it is critical to incorporate into any framework the associated need to invest in new capital equipment within the firm. This has is particularly important in established process industries, such as the food and drinks and packaging industries.