



INTERNATIONELLA HANDELSHÖGSKOLAN
HÖGSKOLAN I JÖNKÖPING

Packaging in the New Product Development Process

An International Perspective

Master's Thesis within Business Administration

Author: Hult, Malin

Nilsson, Pauline

Tutor: Gustafsson, Karl Erik

Jönköping May 2005

Master's Thesis in Business Administration

Title: Packaging in the New Product Development Process
Author: Hult, Malin
Nilsson, Pauline
Tutor: Gustafsson, Karl Erik
Date: 2005-05-31
Subject terms: Packaging, New Product Development, Standardization

Abstract

Problem Discussion: The thesis is conducted to investigate how packaging is taken into consideration within the new product development process and in which stages of the new product development process packaging actually is taken into consideration. Further we want to investigate if packaging has increased in importance within the activities of the new product development process, and how organizations deal with standardization of packaging for international markets in the new product development process.

Purpose: The purpose of this thesis is to investigate how packaging of convenience goods is an integrated part of the international new product development process.

Method: We have chosen a qualitative approach. The study was conducted through in-depth interviews, face-to-face and by phone. The interviewees were selected through judgemental sampling. The sample included eight organizations producing convenience goods that are active on several markets.

Conclusion: It was found that packaging always has been of importance; however, it was found that packaging has increased in importance within concept development implying that packaging indirectly has increased in importance within the new product development process. Further, packaging is included in all stages in the process, but has its major significance in the concept development phase. International organizations need to consider the level of standardization throughout the process.

Content

1	Introduction.....	1
1.1	Background.....	1
1.2	Problem Discussion	2
1.3	Purpose.....	2
1.4	Delimitations	3
1.5	Definitions	3
1.6	Contribution of the Thesis.....	4
1.7	Disposition	5
2	Theoretical Framework	6
2.1	Product.....	6
2.2	The New Product Development Process.....	7
2.2.1	Activity-Stage Model	8
2.2.2	Complementary Models of New Product Development.....	11
2.2.3	Recent Thinking within New Product Development.....	12
2.2.4	New Product Development within this Thesis.....	12
2.3	Packaging	13
2.3.1	Communicating with the Package.....	13
2.3.2	Standardization versus Adaptation	14
2.4	Framework Review	15
3	Methodology	16
3.1	Data Collection.....	16
3.1.1	Interview Method.....	17
3.1.2	Interview Framework.....	19
3.1.3	Primary and Secondary Data.....	20
3.1.4	Anonymity.....	20
3.2	Sampling	21
3.3	Presentation of Organizations	22
3.4	Trustworthiness: Validity & Reliability.....	23
3.5	Method of Analysis.....	24
3.6	Criticism and Justification of the Method Applied.....	25
4	Empirical Findings	27
4.1	The New Product Development Process.....	27
4.1.1	Idea	27
4.1.2	Concept	28
4.1.3	Product Development and Production	29
4.1.4	Launch.....	29
4.1.5	Evaluation.....	29
4.1.6	Testing.....	30
4.1.7	Flexible Process	30
4.2	Packaging	31
4.2.1	Material.....	33
4.2.2	Testing.....	34
4.3	Standardization versus Adaptation.....	34

5	Analysis	36
5.1	The New Product Development Process.....	36
5.1.1	Trend Analysis and Idea Generation	37
5.1.2	Concept Development.....	39
5.1.3	Product Development and Production	40
5.1.4	Launch.....	41
5.1.5	Evaluation.....	41
5.2	The Importance of Packaging.....	41
5.3	Standardization versus Adaptation.....	42
5.4	A Modified New Product Development Process.....	43
6	Conclusion	46
7	Final Discussion	47
7.1	Reflections upon the Research.....	47
7.2	Further Research	48
	List of Reference	50

Figure

Figure 1-1 Disposition	5
Figure 2-1 Definition of product.....	6
Figure 2-2 NPD process in the 1960s.....	8
Figure 2-3 NPD process in the 1980s.....	9
Figure 2-4 Kotler's NPD process	10
Figure 5-1 Modified NPD process.....	44

Appendix

Appendix 1 Intervju guide	53
Appendix 2 Interview guide.....	54
Appendix 3 Booz et al.'s NPD stage definition	55

1 Introduction

In this introductory chapter we provide a background to the research subject. A problem discussion is presented including the research problem. Further, the purpose of the research is stated. The chapter ends with relevant definitions and delimitations of the study.

1.1 Background

Distinctive packaging was considered already in the early 18th century, when patent medicines were marketed in England and America. In the end of the 19th century, packaging was used as a mass marketing tool and steadily, packaging became a marketing tool among with advertising and branding. After World War 1 the importance of package design grew and also the interest in its appearance. Organizations discovered the significance of psychological factors, which affected the visual elements of package: color, shape, imagery and graphics. In the mid 20th century package design changed, organizations then took previous experience and success into consideration, which created patterns of expected graphic and colors (McDonough, 2003).

At the end of the 20th century package design and redesign were so highly prioritized that agencies that were specialized in packaging were used. Today, the product is so dependent on the package, because it defines the product, that the package sometimes is more valuable than the goods inside (McDonough, 2003).

Organizations must know how to internationalize their product development process to be able to develop products for international markets; some organizations choose to standardize their products while others decide to undertake local adaptation (Terpstra & Russow, 2000). Packaging, together with brand name, quality, styling and features forms the actual product; therefore all these dimensions are taken into consideration in the product development process (Kotler, Armstrong, Saunders & Wong, 2002). However, as packaging has increased in importance it should potentially be of greater significance in the product development process. According to McDonough (2003), more time and effort are often spent on the packaging than on the actual product. The importance of the package is rapidly increasing, and Kotler (1997) even suggest that it should be a part of the marketing mix as a fifth P, together with product, price, place and promotion. Packaging can also be referred to as a company's "silent salesman" since it contributes to advertisement of the product (McDonough, 2003).

International packaging must reflect the product's actual meaning in the individual country and contribute to a common denominator. As people's traveling has increased, it is important that they can recognize products and packages in foreign countries. This might lead to greater unification within the packaging area on a world-wide basis. Products that are bought regularly with low level of comparison are called convenience goods. Creating an appeal through the package within this product category is especially important since purchase decisions are made in-store (Kotler et al., 2002).

An international marketer needs to consider that a package must be differentiated through its visibility, be able to communicate the content of the product, generate an extraordinary impression in the mind of the buyer as well as be practical in home use and functional to protect the product (Albaum, Strandskov & Duerr, 2002).

International marketing involves integration and standardization of marketing activities across numerous geographical markets. However, this does not exclude the use of adaptation strategies to individual markets when such is necessary (Kotler et al., 2002). Standardization of convenience goods is desirable to be able to create a worldwide recognition (Albaum et al., 2002).

1.2 Problem Discussion

The significance of packaging has increased over the years and presently it is a critical marketing tool, especially concerning convenience goods (Kotler et al., 2002). Packaging enables an organization to attract the attention of buyers and communicate the product (Albaum et al., 2002). As consumer tastes and preferences have become increasingly homogenous, one might see a potential for increasing standardization of convenience products (Kotler et al., 2002). However, consumer preference and buying behavior vary over countries, which create a need for adaptation to individual markets.

Through packaging an organization can internationalize its product development process, which helps the organization to adapt to individual countries (Terpstra & Russow, 2000). Literature in product development often presents a linear model of the product development process without taking any changes in key activities into consideration (Trott, 2002). As literature also considers packaging as merely being a part of the product, the models describe these two attributes in a unified way (Paine, 1991). Further, Paine (1991) stresses that product and packaging would benefit from joint development since these are two integrated items. The significance of packaging can therefore be neglected within these models. We are therefore aiming to provide an improvement of theory by modifying the new product development process and add a more clear view of the integration of packaging, to create a more accurate picture of today.

We therefore find it interesting to investigate how packaging is taken into consideration within the new product development process. In which stages of the new product development process is packaging actually taken into consideration? Has packaging increased in importance within activities of the new product development process? How do organizations deal with standardization and adaptation of packaging for international markets in the new product development process?

1.3 Purpose

We want to investigate how packaging of convenience goods is an integrated part of the international new product development process.

1.4 Delimitations

According to Trott (2002) new product development activities can be divided into two segments; technological activities and marketing activities, which vary in significance over industries. Industries need to find a balance between the two and it can be concluded that industrial products need to emphasize more on technological activities, while convenience goods industries direct more attention to marketing activities. Convenience goods industries put high emphasis on promotion and packaging, while high technology industries concentrate on the functional aspects of the product. We have decided to focus on the product development of convenience products, since promotion and packaging are of high importance in this category.

Packaging involves designing and producing the outer cover of the product, such as containers and wrappers. The package may consist of a primary package, such as a jar for a day cream, and a secondary package, such as the paper box containing the jar of day cream (Kotler et al., 2002). A further focus of the thesis is therefore only to consider the outer package, whether it is a primary or secondary package, as this is the part of the package that is displayed for the customer and thereby the most communicative part at the point of purchase.

The research will only include organization operating in Sweden that are involved in marketing activities on other markets, which create a possibility for an international perspective.

Even though culture is the underlying reason for why companies decide to standardize or adapt their offerings, we consider it to be too complex for us to deal with in this thesis. Further, we do not consider a discussion about culture to be meaningful for our research subject and purpose since the thesis focuses on the product development process and the increased integration of packaging. Companies can choose to standardize or adapt their packaging and we focus on how this affect the development process rather than exploring the underlying, country specific, cultural reasons for it.

1.5 Definitions

The following definitions will clarify key concepts used throughout the thesis.

Convenience goods are products that consumers buy on a regular basis with a low level of comparison and buying effort (Kotler et al., 2002). Convenience products are further divided into three categories; staples, impulse goods and emergency goods. Staples refer to products that are purchased frequently, such as detergent or yoghurt. Impulse goods are bought without significant planning effort, such as chocolate bars, and emergency goods refer to products that are bought when a need is urgent, such as aspirin (Kotler et al., 2002).

New product development refers to the development of original products, improvements, modifications and innovations within the organizations (Jain, 2000). Further within the thesis, new product development will be referred to as NPD. Literature, models and discussions related to the NPD process are seen from an international

perspective, as the same model is used for domestic and international NPD (Onkvisit & Shaw, 2004).

1.6 Contribution of the Thesis

Previous researchers consider packaging a part of the product, which indicates that packaging is not brought up separately in the NPD process. The findings from the thesis can be valuable to theory as we are aiming at modifying existing theory of the NPD by adding how packaging is integrated in the process. The findings of how packaging is integrated can increase knowledge for students and researchers, and also create an interest for further studies.

1.7 Disposition

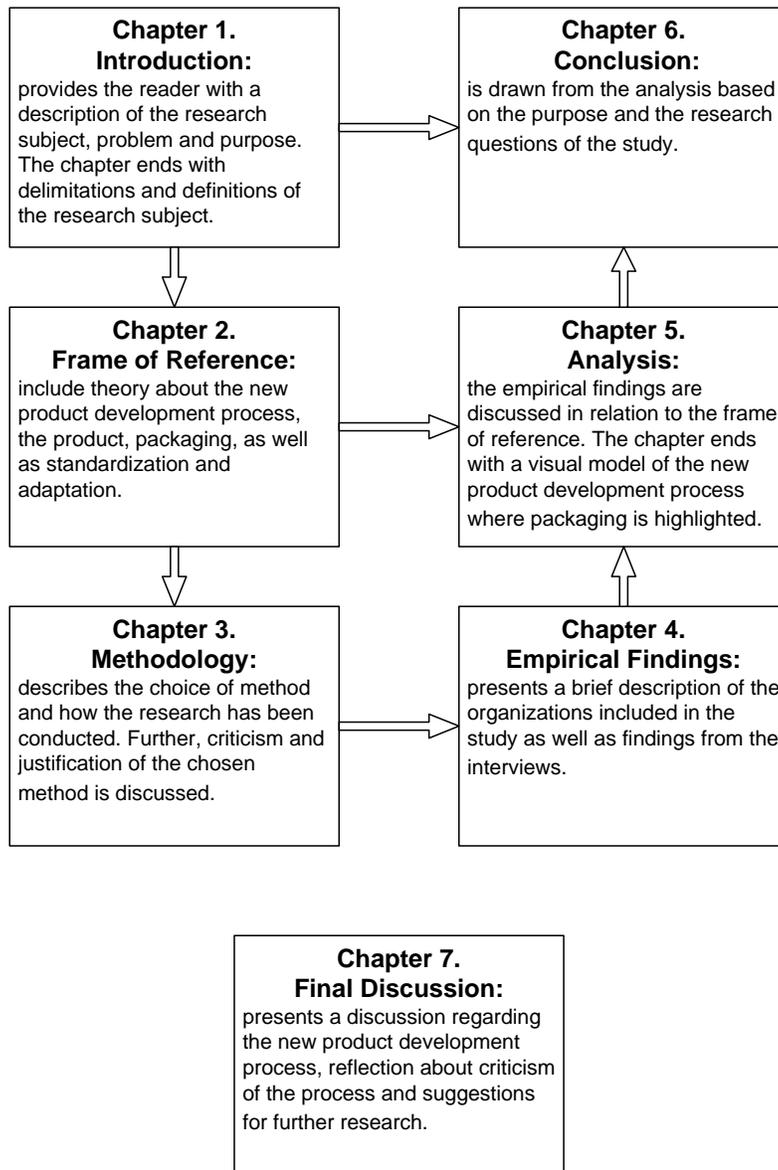


Figure 1-1 Disposition

2 Theoretical Framework

The following chapter discusses the theoretical framework the thesis is based on. First, the product features are presented followed by a detailed discussion about the product development process. Further, packaging aspects are introduced and the choice between standardization and adaptation is discussed. The chapter ends with a brief summary of the framework.

2.1 Product

According to Kotler et al. (2002, p.460), authors of a textbook used frequently within marketing, a product is "anything that is offered to a market for attention, acquisition, use or consumption and that might satisfy a want or need". Onkvisit and Shaw (2004) further define it as "bundle of utilities or satisfaction" (p.275). Products are therefore not limited to the tangible good, it also include attributes such as physical objects, services, places and ideas.

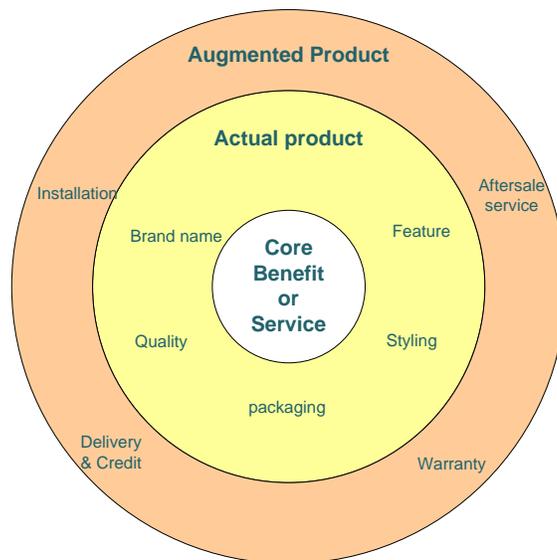


Figure 2-1 Definition of product

According to Kotler et al. (2002), product planners should think of the product in three layers such as the model of product levels seen in figure 2-1. The core product is the most basic level and answers the question: What is the buyer really buying? It is the problem solving benefit that consumers seek when purchasing a good. At the next level, five characteristics to the core product; quality, styling, features, brand name and packaging are added that compose the actual product. These features are carefully combined to deliver a core benefit to the customer. Additional services and benefits build an augmented product around the actual and core product (Kotler et al., 2002). By offering delivery and credit, warranty, after sale service and installation,

a complete solution is offered to solve the consumer's problems. Perreault and McCarthy (1999) refer to the term product as the total satisfaction provided to the customer. Product features such as product idea, brand, package and warranty will create a combination of offerings needed to satisfy the customer. From the discussion about products above, it is clear that packaging is a part of the product and therefore included in the product development process, which further will be discussed in the following section.

2.2 The New Product Development Process

The high complexity of innovations generates problems in the development of a generalized model of the NPD process. Several studies within NPD assume a general model to represent the stages involved in a firm's product development (Saren, 1984). The empirical and theoretical research during the early 1980s was, according to Saren (1984), foremost concerned with providing explanations for product success. Factors associated with the organization, its surroundings and the NPD, differentiated successful NPDs from failures. Further, studies directed towards individual factors such as evaluation techniques, source for idea generation and communication has been conducted. However, little research focused directly on the NPD process itself (Saren, 1984).

Cooper (1983), a researcher and consultant within new product development, conducted a study with the purpose of uncovering how the NPD process actually occurs, 58 case histories from industrial product firms were studied. The research was conducted through in-depth interviews among randomly selected firms known to be active in research and development (R&D). Two products from each organization were studied, one with commercial success and one which had failed. The case history, from idea to launch, was then studied, each step of the development was elaborated on and flow diagrams were drawn. The results of the research showed that the underlying proposition, that no typical process model is likely to exist, held true as no projects followed an identical process. However, similarities between projects were found. A second purpose of the study was to develop classifications of models that better reflect the occurrence than a single general model. As a result distinct categories of processes were distinguished (Cooper, 1983). With this research in mind, Saren (1984) developed a taxonomy in which different types of innovation processes is presented. The categories brought up are: departmental-stage models, activity-stage models, decision-stage models, conversion-process models, and response models. Trott (2002) further discusses cross-functional models and network models as a basis for NPD. Departmental-stage models, activity-stage models and decision-stage models are examples of linear models, where activity-stage models are frequently used and presented in books (Trott, 2002). As activity-stage models are the most prominent in marketing and management literature, we will focus on this process and only briefly describe the other models within NPD.

2.2.1 Activity-Stage Model

The most common model used for describing stages of the new product development process is the activity-stage model (e.g. Onkvisit & Shaw, 2004; Trott, 2002; Kotler et al., 2002; Terpsta & Russow, 2000; Guiltinan, Paul & Madden, 1997; Urban & Hauser 1993). The representation of these models is numerous. The basic steps are often the same; however, stages may be added or changed. According to Trott (2002) the stages of the NPD have changed significantly over the past 30 years, however, a vast majority of textbooks do not handle this change. They present the linear model regardless of any major differences. The prominent use of the linear model is therefore ingrained in the minds of many researchers.

An activity-based model used by Kotler et al. (2002) has become almost a standard element in management literature. The model is based on an original classification by Booz, Allen and Hamilton, developed in the 1960s (Lindström, 1994).

Booz, Allen and Hamilton are management consultants studying the role of management in creating and exploiting new products. Their first edition of “Management of New Products” was published in 1957, and along the years, information and trends within the subject has been updated (Booz et al., 1963). In order to assist corporate management in meeting requirements of growth through NPD, Booz, Allen and Hamilton (1982) have conducted several hundred client assignments dealing with new product management issues. The projects have covered all aspects of the NPD process. Booz et al. (1982) identified and developed several important concepts for managing new products, such as the product life cycle, the six-step NPD process (see figure 2-2) as well as the new product idea “mortality curve”. These concepts have come to form the backbone of new product management used by many firms.

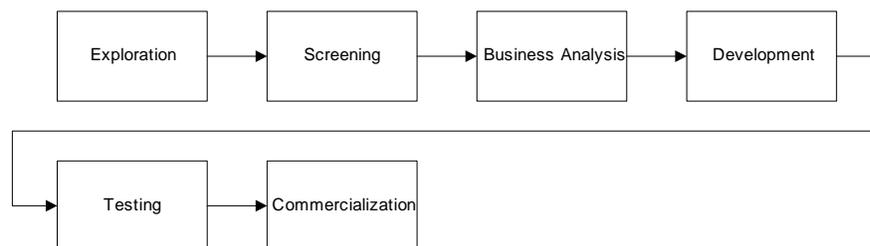


Figure 2-2 NPD process in the 1960s

The six-step NPD process presented in the 1960s identified the activities executed when bringing the product ideas to the market. The process specifies the requirements needed by management in order to effectively manage the process (Booz et al., 1982). The original six-step model originated from a study of case histories. Six clear stages were found, however the labels of the stages varied between organizations and they could further be combined or subdivided (Booz et al., 1963). For a detailed version of the process, see appendix 3. A distinct characteristic found by Booz et al. (1963) was that most ideas that were not carried out into commercialization were terminated in the beginning of the process, the level of terminations then rapidly diminished. Further, they found that as the project progress the expenditure for each stage increased. When examining the process of how new products arose, Booz et al.

Theoretical Framework

(1963) concluded that management should strongly focus on the first three stages in the process, exploration, screening and business analysis.

As product managers are constantly looking for new improved approaches to NPD, Booz et al. (1982) conducted a study in the 1980s including more than 700 American manufacturers' responses to a questionnaire regarding their current development practice. Information was received on over 13 000 products introduced between 1976 and 1981. 60 percent of these were industrial goods while the other 40 percent were consumer goods. Additionally, more than 150 depth interviews were conducted with leading product executives in the United States and Europe.

The study resulted in a modification of the NPD process (Booz et al., 1982). A new step, new product strategy development, was introduced as the research showed that 77% of the surveyed organizations used this step in their product development process (see figure 2-3). Further, the nature of the first three steps of the process, new product strategy development, idea generation and screening and development, changed and the three steps became more closely linked to each other as well as more iterative. The modification emphasized more on idea generation and its development to meet strategic objectives with the purpose to identify strategic business requirements that the new product should satisfy (Booz et al., 1982).

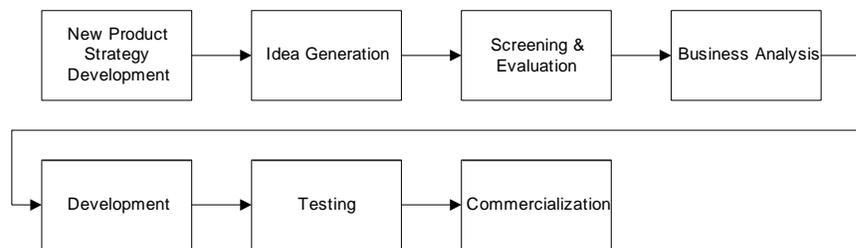


Figure 2-3 NPD process in the 1980s

Kotler et al. (2002) further discuss the activity-based model of the NPD process as a nine-stage process (see figure 2-4). The first stage forms the development of a new product strategy. The strategy aims to help the company to focus team effort, integrate functional labor, facilitate delegation of tasks and promote proactive management. The second stage is idea generation, where organizations systematically search for new product ideas and opportunities, through internal sources, customers, watching competitors, distributors and suppliers. Magazines, shows, agencies, research firms and students are also good examples of how organization can come up with new product ideas. Terpsta and Russow (2000) highlight the importance of communication between the organization and the international environment. Local distributors should be encouraged to report ideas from for example local competition and the sales force unit.

Theoretical Framework

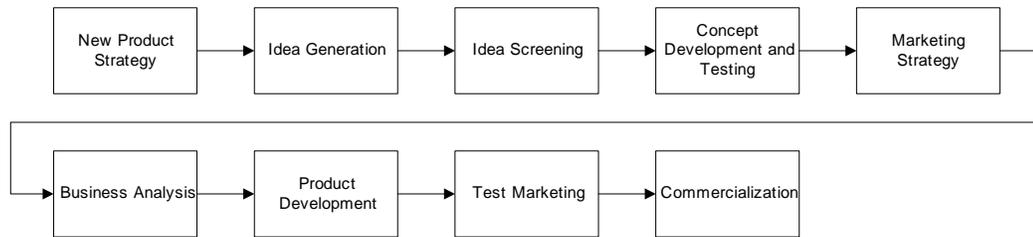


Figure 2-4 Kotler's NPD process

The third stage is idea screening, where organizations separate good ideas from poor ones (Kotler et al., 2002). Organizations often require their executives to create a standard form for new product ideas that can be evaluated by a new-product committee. The standard form should consist of a product description, the target market and the competitive environment. The main goal is to answer questions such as if the product will satisfy the need of the market, if it matches the goal, objectives and strategies of the organization, if the organization has the abilities and skills to succeed, if it will be competitive at the market and last but not least if it is easy to promote, advertise and distribute. Today many organizations have well developed systems for evaluating product ideas. According to Terpsta and Russow (2000) idea screening is one of the most complicated stages in international NPD, since preference and marketing capabilities may vary from country to country.

The fourth stage is concept development and testing where the organization defines the product idea, concept and image. It is important that the company knows how to distinguish between the three. According to Kotler et al. (2002, p. 506) *"a product idea is an idea for a possible product that the company can see itself offering to the market. The product concept is a detailed version of the idea stated in meaningful consumer terms. The product image is the way consumers perceive an actual or potential product"*. After the concept is stated, its appeal must be tested in for example a group of target customers, where the concept can be presented symbolically or physically.

In the fifth stage the company states its marketing strategy. The strategy consists of three different parts. First, the target market, the planned product positioning, the sales market share and profit goals for the initial period are described. Second, the planned price of the product, its distribution and marketing budget are stated. Third, the long-run sales, profit goals and marketing mix strategy are described (Kotler et al., 2002). This process is according to Terpsta and Russow (2000) complex for an organization selling internationally, since it must be considered for a number of markets.

The sixth stage, business analysis, is conducted as the organization needs to review expected sales, costs and profits to make sure that these will be in line with the company objectives. If management is satisfied with the analysis, the seventh step, actual product development stage, takes place. The product idea is then developed to a physical product to make sure that the product is viable. The R&D department plays an important role in this stage. A prototype is developed and evaluated internally and externally. Critical tests will also be made concerning the products appeal, effectiveness and functionality. The prototype must expose all expected functional features,

but also communicate intended psychological characteristics (Kotler et al., 2002; Terpsta & Russow, 2000).

In the eighth stage test marketing is carried out. In this step the product and marketing program are introduced into a more realistic environment, meaning that the product and the entire marketing program including positioning, advertising, distribution, branding and packaging are tested under real market conditions. When conducting tests, organizations usually use one of the following three approaches; standard test markets, where the company conducts a full marketing campaign in a few chosen cities. Controlled test markets, where the companies through research firms use controlled panels of stores that carry new products for a fee, and simulated test marketing, where the company introduce a sample of consumers to promotions and ads for a number of products, including the new product, in a simulated shopping environment (Kotler et al., 2002). Terpsta and Russow (2000) further discuss the importance of finding representative countries and regions, where test marketing can be carried out, since the product is to be sold internationally. The last stage in the new product development process is according to Kotler et al. (2002) commercialization, which means that the new physical product is introduced to the market.

Annacchino (2003) supports Kotler et al. (2002) in the view of the new product development process. Additionally, the importance of setting up an evaluation criterion is emphasized. Each idea should be tested and evaluated against the criterion. Annacchino (2003) also highlights the importance of consistency within the new product development process, since this practice is the driver of all future movements. The consistent manner of evaluation must subsequently be in line with the strategic planning. The ideas that pass tests and evaluation, and also are in line with the strategic planning, should meet up with the company's product design criteria. Although some ideas are rejected these are stored for possible future evaluation. When ideas have managed all these steps the process can proceed and the product is to be developed. Annacchino (2003) further describes the NPD process as an iterative process where different stages constantly are evaluated after being processed.

Even though the activity-stage model is the most frequently used model in theory, there are complementary models and recent thinking that may provide nuance to the NPD process.

2.2.2 Complementary Models of New Product Development

Two additional types of linear models are departmental-stage and decision-stage models. In departmental-stage models each department is responsible for specific tasks; the departments finish each task before handing over the material to another department. The model is therefore often referred to as an "over-the-wall" model (Trott, 2002). Today it is widely known that this type of model hinders the development of new products, since communication between departments is neglected. The NPD process in a decision-stage model is represented by a series of decisions, required to take, in order to precede the project (Kotler, 1997). There are two types of decisions involved in each module. First, a go-/no go-decision should be taken and second, if the project is continued, the information required must be evaluated to decide the next modular

step (Saren, 1984). These models simplify iteration through the use of feedback loops. A criticism to this model is that the feedback gained is implicit rather than explicit (Trott, 2002).

A disadvantage of the previously discussed linear models is the attempt to break down the innovation process into component parts, creating an orderly and logical process. However, this is rarely the case in practice (Saren, 1984). This aspect is considered in the conversion-process model that views NPD as a transformation of input to output. However, the limitation of this model is the lack of detailed information (Trott, 2002).

2.2.3 Recent Thinking within New Product Development

Trott (2002) further discuss recent thinking within NPD. Response models were originally brought up by Becker and Whisler (1967, cited in Saren, 1984), and were further discussed by Trott (2002). This model concentrates on the response, of individuals and organizations, to a new project idea or proposal (Trott, 2002). The purpose of a response approach is to describe how organizations react to internal and external stimuli.

In cross-functional models communication between departments is enhanced. Projects often experience problems as information needs to be passed back and forth between departments. The passing of information lengthen the NPD process. By forming cross-functional teams these problems can be reduced, since each department is represented in the team (Trott, 2002).

The most recent thinking within the NPD process is, according to Trott (2002), network models. These models are built on case studies, where focus lies on accumulation of knowledge from department such as R&D, marketing and manufacturing. As knowledge increases, the project moves from initial idea to development. These models take both external and internal sources of knowledge into consideration. They can be viewed as a snowball that is rolling down a snow-covered mountain, continuously increasing in size (Trott, 2002).

2.2.4 New Product Development within this Thesis

As the activity-stage model is the process most commonly used by theorists and researchers we have chosen to focus the study on this model. Therefore, we will further refer to this model in general when we discuss the NPD process. We will view the corresponding models mentioned above as complements to the activity-stage model in the analysis. Even though little attention has been put on these models, we believe that they have characteristics, such as decision-stages and cross-functionality, which may help us create a more accurate picture of today's NPD process. So far, they appear to be merely theoretical thinking that have not been accepted as physical models for practical use and are so far only in the shadow of the activity-stage model.

Additionally, even if the study conducted by Booz et al. (1982) put more attention on industrial goods (60%) than on convenience goods (40%), we will only focus on the

convenience goods industry to further elaborate on a process that applies for these goods. Since packaging is more important for convenience goods, we will further discuss its features.

2.3 Packaging

Today international organizations face special challenges, both concerning development of products and packaging (Kotler et al., 2002). Packaging has changed from only being a container for protecting the product to an important part for promoting the product it contains. Through special packaging features a company can reach a specific market or target group (Eklund, Bellefleur, & Jasslin, 2003). According to Kotler (1997) packaging is so important to the product that it should be considered as the fifth P, among with product, price, place and promotion. Dart (1999) states that packaging is a useful tool for expressing newness and changing present circumstances within the product area. The package shall sell the product through attracting the attention of the buyer and give him or her reason to buy the product. Packaging shall also identify the product. An international marketer can apply the VIEW test in each market (Albaum et al., 2002)

- Visibility (V): the package must differentiate itself visually from competitors.
- Information (I): the package must efficiently communicate the content of the product.
- Emotional impact (E): the design must generate extraordinary impressions in the mind of the buyer.
- Workability (W): the package must be practical in home use and function as a protection of the product.

2.3.1 Communicating with the Package

According to Bramklev (2003) there is no generic procedure model for packaging development. Rettie and Brewer (2000) further state that there is lack of literature and empirical research within this area. According to Kotler et al. (2002) the packaging communication is a major challenge for international marketers. Marketers can use graphics, shape and texture to differentiate their product and packaging, which will create value. Other package elements that need to be considered are size, color, brand mark, shape and materials. These elements should be in line with the product's pricing, distribution and advertising.

Countries communicate differently with names, labels and colors. These attributes may not translate easily from country to country. People vary in their preference of packaging, sometimes packages need to be tailored to meet the needs of an individual country. For example, Europeans generally favor packages that are efficient, functional and recyclable, while packages in Japan are often used as wrapping and should therefore be a stylish gift box. Soft drinks are also smaller in Japan compared to other markets, to fit the Japanese people smaller hands better. Hence, sometimes organizations also need to adapt their packages after regulations and legislations in different countries and markets (Kotler et al., 2002).

People may also differ in their preference of materials such as paper, glass, plastic, wood and metal (Albaum et al., 2002). Another major aspect is the environmental concern of packaging, especially regarding the use of material, how it is used and if it is recyclable. For example, the European Union has strict directives of the use of packaging and how the waste should be recycled (Albaum et al., 2002). Another concern is the shortages of aluminum, paper and other material, implying that marketers should consider reducing packaging (Kotler et al., 2002).

Product managers dealing with international products need to consider if the package can be standardized to serve all markets or if it needs to be adapted to meet the preferences of the local market.

2.3.2 Standardization versus Adaptation

According to Kotler et al. (2002) organizations face special packaging challenges when deciding to launch a product internationally. First, they need to decide what products to introduce and which markets that are appropriate. Second, they need to decide whether they should standardize or adapt their products and packaging for international markets. Standardization and adaptation can be conducted for the core product, the package and for auxiliary services (Albaum et al., 2002). At one extreme, organizations can standardize their marketing mix worldwide, which basically implies selling the same product using the same approach in all markets. The alternative extreme is to use an adapted marketing mix, where the producer adjust marketing elements to each market, bringing more cost but in addition potential for larger market share and return on investment (Kotler et al., 2002). Whether an exporter should aim to adapt the package or use a standardized approach cannot clearly be answered, nor is it, in many cases, even possible to take advantage of complete standardization due to mandatory or voluntary adaptation. Mandatory changes can be due to legal adjustments and voluntary to consumer preferences (Albaum et al., 2002).

Organizations may wish to standardize their packaging as it helps them develop a worldwide consistent image, as well as it is the most cost efficient method. However, consumer preferences and buying behavior differ worldwide. Further, markets differ in economic conditions and physical environment, which creates a need to adapt product offerings (Kotler et al., 2002). Between countries, there is a high divergence in the population's knowledge, beliefs, morals and customs (Bradley, 1999). As consumer tastes and preferences become increasingly more homogenous, the question arose whether this allows for a global standardization of the marketing mix or not (Kotler et al., 2002).

There are several reasons to why a firm may wish to sell the domestic product unchanged in foreign markets. Primarily, standardization reduces the complexity for organizations and is more cost beneficial. By using the same raw materials, equipment and development processes manufacturing economies of scales will be gained (Terpstra & Rossow, 2002; Albaum et al., 2002; Olsson & Györei, 2002). An example provided by Albaum et al. (2002) illustrates how Kellogg's managed to lower their packaging production costs by multilanguage package for its cereals. Further, the more similar the firm's product is from country to country the more alike will require-

ments from the market be, which give rise to marketing economies. By presenting the domestic market as a world product, marketing and product research for the foreign markets will not present any further costs that normally arise when adapting a product to one market (Terpstra & Russow, 2002).

According to Albaum et al. (2002) some degree of standardization is desirable especially concerning convenience goods that need to attract buyers. One issue that can create a problem for standardized products is language. In some regions it is necessary to use the local language on the package, while English labeled packages exist in other non-native English speaking countries. Using multilanguage as a form of standardization is becoming more prevalent in packaging for convenience goods (Albaum et al., 2002). Companies can for example use ten languages on an individual package to convey information such as content. When a company uses standardized measures for packages, it can sufficiently reduce costs and generate benefits such as reduced costs for R&D, design and inventory levels.

To modify the package for different markets is probably the cheapest and easiest way to adapt products and make them suitable for different markets. Such adaptation involves issues such as adapting the language to the region as well as altering appeal to better suit consumer preferences (Albaum et al., 2002). As concluded from the discussion above, packaging are seldom completely standardized, nor completely adapted to each market. That is, the level of standardization may differ.

2.4 Framework Review

As the product and packaging are two integrated items in the NPD process, both elements are discussed and presented within this chapter. Further international packaging fundamentals are brought up to increase the understanding of its integration into the NPD.

The NPD process can take form of many models; however the activity-stage model is the most frequently used in previous studies and literature of today. Booz et al. (1963) are the founders of the activity-stage models and their model has served as a basis for Kotler et al.'s (2002) NPD literature as well as many other prominent marketers of today such as Onkvisit and Shaw (2004), Trott (2002), Terpsta and Russow (2000), Gultinan et al. (1997), Urban and Hauser (1993). As Kotler is one of the most acknowledged authors within marketing, we consider his process representative for the NPD process today. Therefore, the frame of reference focuses on the findings and evolution of the process found by Booz et al. and further discussed by Kotler et al.

Since international organizations are included in the research, the perspective of standardization degree of packaging is discussed. This is further included to create an understanding of how these aspects need to be considered in the NPD process.

3 Methodology

The following chapter discusses the reasons for choosing a qualitative method and how the empirical research is conducted. Further, we present our sampling design where a brief presentation will introduce the organizations included in the study followed by the interview framework. In the final sections, the analysis of method, trustworthiness of the research and criticism towards the chosen method is discussed.

3.1 Data Collection

When collecting data a researcher has the choice between using a quantitative or a qualitative approach. A quantitative research is characterized by a great number of respondents and statistical methods are used to investigate a representative sample that has answered a structured and standardized questionnaire. The results of the questionnaire become input data that are statistically analyzed (Cantzler, 1991). A qualitative research approach is an unstructured and exploratory research methodology based on a small non representative sample. Findings are analyzed non-statistically to provide insight and understanding of problem settings (Malhotra, 2002). Qualitative research is appropriate when facing uncertain situations such as when conclusive results might differ from the held expectations (Patton, 2002).

According to Svenning (2003) the quantitative research method is based on hard data while qualitative research method is based on soft data. Information gained by analyzing soft data can answer why a phenomenon is in a certain way, while hard data that are expressed in numbers only can statically expose how many respondents that answered in a certain way. Soft data enables the research to become more in-depth and detailed and it contributes to a comprehensive view of the study.

The choice between using qualitative or quantitative methods involves a trade-off between breadth and depth of the research (Patton, 2002). Qualitative methods permit a greater depth with attention to detail, context and nuance. Further, there are no pre-determined analytical categories that constrain the potential breadth of the qualitative research. Therefore, we have chosen a qualitative approach for data collection.

The primary criticism directed towards qualitative research is its subjectivity. Lekvall and Wahlbin (2001) state that subjectivism is more prominent in qualitative data collection as the researchers influence is larger when conducting interviews, analysis and interpretation of the material. Malhotra (2002) underlines that the lack of structure, in form of difficulties in structuring and interpreting data, makes the research further reliant on researcher's skills. We are aware of the disadvantages generated by subjectivism and lack of structure; however, due to the nature of qualitative methods it must be accepted to some degree. The advantage of gaining in-depth knowledge about the topic is vital for the research and therefore outweighs the disadvantages. To decrease subjectivism, all data is handled by both of us when processing and analyzing. By limiting our sample to a manageable number of interviewees we aim to decrease the disadvantage of an unstructured research method.

Collecting data for qualitative findings can be done either through direct observations, written documents or open-ended interviews (Patton, 2002). Open-ended interviews can take form of focus groups or in-depth interviews (Malhotra, 2002). According to Svenning (2003) in-depth interviews are the foremost instrument of soft data collection.

Due to the nature of our purpose, to find in-depth information about how the package is taken into consideration in the product development process, we will use a qualitative approach through in-depth interviews. Since observations do not permit us to elaborate on how companies deal with packaging in the product development process we do not consider these methods adequate. As the research include professionals whose companies are competitors to each other, they might be unlikely to reveal such relevant information in group settings. In-depth interviews would therefore be the most appropriate approach (Malhotra, 2002). We have chosen to use a method, where an in-depth and more detailed study can be accomplished through interviews without limiting the interviewees to the constraints of predetermined categories (Patton, 2002).

Further, a direct approach to the qualitative research is used, which indicates that the purpose of the project is revealed to the interviewee (Malhotra, 2002). In order to receive correct and adequate answers that are applicable to our frame of reference, we find this approach to be most appropriate.

According to Ritchie and Lewis (2003), qualitative studies cannot be generalized for a wider population as small samples are not statistically representative. In a quantitative study, findings can be generalized and conclusions can be drawn from the sample for the entire population. The aim with the study is not to draw general conclusions. However, by studying large organizations and their NPD process, we were able to gain an understanding of how they work today that enabled us to answer our purpose.

3.1.1 Interview Method

In-depth interviews are loosely structured conversations that provide an unstructured way of obtaining information. Sensitive issues that are not appropriate to be addressed in a group setting can be brought up in a free information exchange. Deeper insight can be accomplished with in-depth interviews and the real issue can better be addressed when dealing with complex topics, such as the process of product development (Malhotra, 2002).

According to Trost (1997), the researcher does not need to be the interviewer when conducting a study. However, processing and analyzing information gained during the interview starts as soon as the interviewing process begins. A hired interviewer might not always be able to inform the researcher about details. The interviewer should preferably be a part of the entire study. The best solution is therefore that the interviewer and researcher is the same person. According to Malhotra (2002) the lack of structure in in-depth interviews makes the results highly reliant on the interviewer's skills. To get the most accurate responses the researcher should avoid appear-

ing superior, instead be involved in the interview from an objective point of view as well as direct questions in an informative manner (Malhotra, 2002). Further, probing statements are efficient to use for stimulating the interviewee to elaborate on the topic (Malhotra, 2002; Zikmund, 2000). Chrzanowska (2002) also underlines the importance of having a strategy for handling unexpected situations, something that is central when conducting in-depth interviews. Even though we are not professional interviewers, we consider ourselves to be well informed within the subject and the research problem and therefore are the most appropriate interviewers for this study. Further, we are taking the directions mentioned above into consideration, by for example probing frequently during interviews.

According to Trost (1997) the interviewees should be contacted before the actual interview, where they are informed about the length of the interview. The interview should not be too long since it can be seen as lack of respect for the interviewees' other doings. It can also be seen as lack of planning of the interview. We contacted the interviewees several weeks in advance giving an interview timeframe of approximately one hour. The interviewees were also provided with the interview framework a few days ahead, which enabled them to prepare and give more in-depth information. The interviews did not exceed the timeframe of one hour.

Lantz (1993) states that, the environmental setting, in which interviews take place, is of great significance. It has great influence on the interviewee, and also on the interaction and communication between the interviewer and interviewee. The interviewee must be able to feel confident and relaxed to give the interview full focus. The interviews were conducted at the interviewee's workplace, to ensure that they were fully comfortable in the situation.

Our intentions were to conduct all interviews at the interviewee's workplace. However, as time and costs are limited for this research we had to conduct three out of eight interviews by phone. According to Malhotra (2002) phone interviews are an appropriate method when researchers have time and cost restrictions. When interviews are conducted in one location, these restrictions can easily be managed. Further, the interviews can be completed promptly, since traveling time associated with interviews conducted personally is removed. Disadvantages are that the interview answers are restricted to the spoken word. Physical illustrations and stimuli can not be demonstrated by phone, which might leave out information gained through face-to-face interaction. A risk might also be that the interviewee escapes the interview process, by for example keeping the interview short without paying enough attention to the questions involved or the actual subject. Interviews by phone might also be time restricted; lengthy interviews can therefore limit the quantity of collected data (Malhotra, 2002). The three phone interviews were conducted through a speaker phone and recorded. The interview guide and information given to the interviewee were the same as for the face-to-face in-depth interviews. The interviews further held approximately the same length as the face-to-face interviews. Since the research subject does not necessarily need physical illustration and stimuli, the information loss is limited. We find that the information gained from the phone interviews was sufficient and brought value to the analysis. Phone interviews were an efficient method to overcome time and cost restrictions.

According to Svenning (2003), an absolute must when conducting in-depth interviews is a tape-recorder. Recording interviews enables the interviewer to easily review the conversation in retrospect, which enhance the value of the information gained. The interviewer must also continuously take notes during the interview. However, according to Lantz (1993) the fact that the interviewee is aware of being recorded might influence the interviewee's answers in a negative manner. There is a possibility that the interviewee may feel stressed and become a bit reticent. Recording equipment was used and the interviewees' permission and consent were therefore asked for prior to the interview.

3.1.2 Interview Framework

The task of the interviewer in qualitative studies is to provide a framework within which interviewees can give answers that accurately represent their point of view (Patton, 2002). The first questions asked, can be of vital importance for the entire interview as it is important to build confidence with the interviewee from the beginning of the interview. One way to start the interview can be to ask the interviewee to speak freely about the subject. The interviewer should never interrupt the interviewee, nor comment the given answer, but probing questions can be used to develop the conversation further (Trost, 1997). After presenting our problem, we therefore asked the interviewee to speak freely about their role in the organization and how the NPD process looks like in their organization. We avoided interrupting the interviewees, nor did we comment their given answer, but we used probing questions to elaborate on the subject.

The questions in a framework should be simple and straightforward to avoid misconceptions. The interviewer must therefore be well prepared and make sure that the questions asked will be in line with the purpose of the study (Trost, 1997). However, the framework of questions should only be considered as a guideline to the interview (Svenning, 2003). It ensures that all interviewees receive similar questions relevant to the subject and further permits the interviewee to freely express their opinion, which encourage that new information material is revealed (Krag Jacobsen, 1993). By using open-ended questions the qualitative findings can be longer, more detailed and provide room for nuance. Unstructured questions allow the interviewees to answer in their own words (Malhotra, 2002). The interviewer is then able to capture and understand the researched subject from the interviewees' point of view, without predetermined alternatives as preset categories (Patton, 2002). As the framework only should be considered as a guideline, the interviewers must be flexible during the interview (Svenning, 2003). By using open-ended questions we encouraged the interviewee to elaborate on the subject which gave us in-depth information. The interview framework is in line with the purpose of the study to ensure that relevant information was gathered. The framework functioned as a guideline for the interview; however, we were flexible in handling questions during the interview.

The disadvantages can, in a large survey, outweigh the advantages. As responses are neither systematic nor standardized, recording errors, data coding and analysis of the questions are highly complex (Patton, 2002; Malhotra, 2002). As we conducted in-

depth interviews with a restricted number of interviewees, we found the disadvantages mentioned above limited in our research. The amount of data gained was therefore considered to be manageable.

3.1.3 Primary and Secondary Data

There are two different types of data that can provide information to a research; primary and secondary data. Primary data can be gathered through field work, where the researcher gathers data applicable to a specific research problem (Christensen, Andersson, Carlsson & Haglund, 2001). Primary data in our research was gathered by conducting in-depth interviews with managers that possess knowledge within new product development. Data was thereby gathered specifically to fulfill our purpose.

Secondary data is information that is previously gathered for another purpose than the one at hand. Such information can provide an insight to the surroundings (Arbnor & Bjerke, 1997), and can be collected from books, magazines, databases or other external information sources (Christensen et al., 2001). The information collected from secondary sources for this specific research forms the foundation for our frame of reference. Further, secondary sources provide us with background information to the research problem as well as insight of which method that is appropriate to use when conducting research.

3.1.4 Anonymity

In connection with the first contact or at the beginning of an interview, the researcher should inform that the discussed subject will be treated confidentially (Trost, 1997). Anonymity implies that the name and other distinguishing features of the interviewee should be left unknown. At the first contact with the interviewee we informed them that all received information will be treated anonymously. We further reminded them at the beginning of the interview, making sure that the information would not be restricted because of that.

The names of the organizations studied, are presented in the thesis, however, the information should not be able to be tracked specifically to any of the organizations involved.

Confidentiality entail that what is said during the interviews will not be passed on. What is said and done by each interviewee will be not be revealed to anyone but the researchers (Trost, 1997). Confidentiality further implies that comments in reports and presentations should avoid both direct and indirect identification of participants (Ritchie & Lewis, 2003). Complete interviews are therefore not separately presented in an appendix and will stay in the researcher's possession. Further, the structure of empirical findings prevents information to be identified directly to specific respondents.

3.2 Sampling

In a qualitative study, a sample is a small number of non-representative cases (Malhotra, 2002). Organizations of interest for the study are organizations operating in Sweden and are involved in marketing activities on other markets. Further the organizations are selling convenience goods.

The major alternative sampling techniques the researcher can choose between, are non-probability sampling, which is based on the researcher's personal judgment, or probability sampling, where elements are selected randomly (Malhotra, 2002; Zikmund, 2000). Lekvall and Wahlbin (2001) imply that non-probability sampling is normally used for qualitative studies. In this study, a non-probability sampling technique in form of judgmental sampling is used. Judgmental sampling is a form of convenience sampling where interviewees are selected based on the researcher's judgment of the objects' appropriate characteristics (Malhotra, 2002). An advantage of the method is its usefulness in certain forms of forecasting, as the sample is guaranteed to meet a specific objective (Zikmund, 2000). Further, the method has the advantage of being inexpensive, convenient and quick; however, it makes the sample less than fully representative as well as highly dependent on the researcher's expertise. Generalization to the specific population can therefore not be made from the results of such research (Malhotra, 2002).

To find organizations we contacted the Swedish Export Directory. According to Zikmund (2000) it is preferable to find a list of possible research objects. However, as a complete version of such list was not available a part of the sampling objects were chosen from "Swedish food", a list of organizations presented by the Swedish Export Directory (2005). This list was chosen as it was the only one dealing with convenience products. Further, organizations and interviewees were chosen based on our judgment.

Further, a proper number of interviewees is determined. Several factors such as; the importance of the decision, the nature of the research, the number of variables, the nature of analysis and sample size used in similar studies, ought to be considered in this decision. The fact that a qualitative research approach is used implies that a smaller sample is typically required (Malhotra, 2002). Lekvall and Wahlbin (2001) state that, a qualitative sample should consist of 20 items or less. If the obtained information is correctly analyzed, there comes a point where further interviews no longer generate a more precise result, and in order to process the information properly the sample needs to be relatively small (Ritchie & Lewis, 2003). Further, Cooper (1983) states that if a sample exceeds 20-30 objects the comparison and grouping becomes both tedious and unreliable. Limitations in time and costs further support the use of a narrowed sample (Malhotra, 2002). We choose to conduct in-depth interviews with managers that possess knowledge within new product development from eight internationally active organizations. Based on the nature of the research as well as time and cost restrictions we consider the sample size to be adequate. Further, information became more similar, the more information we gained from the interviews, implying that the number of interviews was sufficient.

In the next section the organizations selected to be included in our research will be presented.

3.3 Presentation of Organizations

Campbell

Campbell Soup Company was founded in the United States in 1869. Today it is an international organization producing a wide range of brands. The production is specialized in soups and sauces and production facilities are situated all over the world. Campbell's Nordic has its head office in Kristianstad, Sweden, where products are produced for the retail and out of home market. Brands are Blå Band, Bong, Touch of Taste and IsoMitta (Campbells, 2005).

Kraft Foods Inc

Kraft Foods Inc is an international company operating in more than 155 countries. It is a global leader within branded foods and beverages and is today known as the second largest in the world within this field. The company was founded in 1903 in the United States where the head office is currently situated. In Sweden, Kraft Foods produce brands such as O'boy, Marabou, Daim, Gevalia and Estrella (Kraft Foods Inc, 2005).

Santa Maria

Today, Santa Maria is the largest flavouring organization in the Nordics. They are currently market leaders in spices, barbeque products, Tex Mex, as well as Thai and India products within the Nordic countries. Santa Maria operates both with customer markets as well as food service, which include large scale kitchens such as restaurants. All production is located in Sweden (Santa Maria, 2005).

Semper

Semper has been operating in Sweden since the 1940s. Semper's sphere of activities is within child food, health food and food free of gluten. They have for many years belonged to Arla Foods, but are now operating under their own management. The main export markets are Russia, Finland and the United Kingdom. All production facilities are situated in Sweden (Semper, 2005).

Toms-Webes AB

Toms-Webes AB is a confectionary company that has supplied the Nordic and European market with candy for 50 years. The company has a large candy assortment that is partly produced in Sweden. The head office of Toms Group is in Ballerup, Denmark. The most famous brands within the assortment produced in Sweden are Sodapops, Ferrari, Geléhallon and Anthon Berg (Toms-Webes, 2005).

Unilever

Unilever is a Dutch-British group that is operating in about 100 countries. Unilever Sweden includes three subsidiaries, Unilever Bestfoods AB, GB Glace AB and Lever

Fabergé AB. Unilever Bestfoods AB is a result of the merge between Unilever and Bestfoods in 2001. The organization is one of the leading within convenience goods on the Nordic market. Brands included in the organization are for example; Lätta, Becel, Knorr and Lipton (Unilever, 2005).

V&S Absolut Spirits

V&S Absolut Spirits was founded in Sweden in 1979 and is a business area within V&S Group. The company is the brand owner and producer of premium vodka. Today, Absolut Vodka is available in 126 countries, where top three markets are the United States, Canada and Greece. Worldwide, Absolut Vodka is the number two brand within the premium range (V&S Absolut Spirits, 2005).

Wasa

Wasa is the largest producer of crisp bread in the world. Their head office is situated in Sweden and production facilities are located in Sweden, Norway and Germany. Wasa products are sold in 40 countries where, followed by Sweden, the largest markets are the other Scandinavian countries, Germany, Poland, the Netherlands, France and the United States. Since 1999 the company is owned by the Barilla group (Wasa, 2005).

3.4 Trustworthiness: Validity & Reliability

According to Trost (1997) the idea of reliability and validity of a study originates from quantitative methodology. These terms should be interpreted differently regarding qualitative studies. Reliability means that a result from a study should be consistent over time if similar research is conducted. The assumption is based on a static relationship between the variables, which is eliminated when conducting a qualitative study. Humans are not static, rather active participants of a dynamic process. As surroundings change constantly, new experience is gained, which implies that answers to the same question will change between research occasions. Qualitative studies should instead focus on trustworthiness. Trustworthiness is highly relevant when conducting qualitative interviews. Researcher must be able to show and prove for readers that the conducted study is trustworthy. This means that the way the information is gathered must be in line with the problem and purpose statement (Trost, 1997). To fulfill our purpose we needed to find the underlying thoughts on how packaging is an integrated part of the international product development process. By conducting in-depth and telephone interviews we gained the breadth and depth necessary to generate trustworthy results. By presenting the information gained during interviews in an empirical chapter, the trustworthiness was improved, as our subjective values were not reflected in this chapter. It allows the reader to create an individual perception of the thesis' trustworthiness.

Validity traditionally means that the study is measuring what it is suppose to measure. Qualitative studies strive to find out how the interviewee perceives an occurrence (Trost, 1997). Generally, the validity is strengthened when the interview is, to the furthest possible extent, built on the interviewee's premises. The interviewee is

given the opportunity to express information in the most adequate manner (Befring, 1994). We therefore built our interviews on open-ended questions and probing, giving the interviewee freedom to express their opinions and share their knowledge.

Maxwell (1992) (in Maxwell & Loomis, 2003) further describes three forms of validity applicable to qualitative research; descriptive validity, interpretive validity and theoretical validity. Descriptive validity is concerned with validity of how events and settings are described. It refers to the degree researchers can determine if gathered data is correct. Interpretive validity involves statement validity of how the participants' meanings and perspectives are described (Maxwell & Loomis, 2003). Researcher must therefore gather information that reflects the interviewees' opinions and thoughts rather than their own (Johnson & Turner, 2003). To ensure descriptive and interpretive validity we conducted in-depth and phone interviews where both participated. The interviews were recorded and immediately typed to avoid individual interpretation, and it allowed us to elaborate on further discussions based on the material gained. We also checked for consistency in answers from the interviews. Theoretical validity refers to the degree to which the theoretical framework supports the empirical findings (Maxwell & Loomis, 2003). As the theoretical framework has formed a basis for the interview guide, used when conducting interviews, the theoretical validity is enhanced. We found that the empirical findings match existing theory to a large extent.

3.5 Method of Analysis

The results from an exploratory research, such as the one conducted in this research, do not have the same qualities as a conclusive research and one must remember that results deriving from the analysis is typically subjective and judgmental (Zikmund, 2000). Qualitative research is often criticized as the validity of the results and conclusions are hard to evaluate. Qualitative data is always related to a specific setting and subjectivism has a prominent role. Predetermined models and methods for how data should be processed does therefore not exist (Lantz, 1993). The presentation of results is further criticized as they are presented as a body text, which makes it difficult to overview. However, the thought of finding general models to process data strides against the qualitative approach where the aim is to capture the subjective and unique in each situation (Lantz, 1993).

Lantz (1993) describes some principles that need to be taken into consideration when processing qualitative data. A primary principle to consider is the aim of providing an understandable and consistent entirety. Such entirety is revealed when separate parts of interviews create an inner pattern (Lantz, 1993). A further principle regards the continuous and iterative variation between separate parts and the information as a whole. By reading through the interview the researcher will gain a global understanding, before separate themes can be studied (Lantz, 1993). By typing and studying the interviews a deep understanding can be gained. The typed material can then be used to study specific details in-depth. Lantz (1993) further states that the researcher should additionally search for consistency in how the phenomenon is described by the researcher in the interview's separate parts. Contradictions behind the interview-

ees thinking should be able to reveal. In the analysis it has to be determined which description that is most adequate. An analysis can never fully remedy the scarcity in data collection and refined analysis depends on the degree of nuance in the data collected (Lantz, 1993). We therefore considered the analysis aspect during the interviews.

A fourth principle presented by Lantz (1993) is the interviews autonomy. The interview must to a large extent be understood without being related to other information, and an interpretation should be based merely on what is revealed during interviews, and the interviewees behavior should be analyzed separately or not at all (Lantz, 1993). We chose not to take behavior into consideration as interpretation of behavior is highly individual and as inexperienced researchers our interpretations would most likely be misleading and would not contribute to the findings.

Interpretation of an interview further demands that the interviewer has some knowledge of the phenomenon under investigation (Lantz, 1993). The interviewers' knowledge serves as a prerequisite in order for nuances to be captured both during the interview as well as the analysis. By formulating a frame of reference before conducting the interviews we gained deeper knowledge about the studied phenomena. By being aware of the theoretical application we were able to use probing during the interviews which provided more depth into the empirical findings. One must further bear in mind that an unbiased analysis of an interview does not exist (Lantz, 1993). The interviewer has an understanding prior to the interview that will be reflected before, during and after the interview. The more developed and refined the models used are, the more nuances are possible to capture and analyze. By looking at the integration of packaging when developing products we gained deeper understanding about the underlying reasons for change. This understanding gave us the possibility to provide nuance in the analysis.

The final principle regards the importance of the analysis. The analysis should through differentiation increase the understanding of the phenomena's meaning and in this way be creative (Lantz, 1993). Both the presentation of empirical findings and analysis are of importance and these should not always be regarded as equal. Merely gathering data and presenting it does therefore not meet the requirements of a qualitative analysis, as it does not necessarily provide understanding of the phenomenon being addressed. We therefore present the analysis separate from the empirical findings. In this part we use the theoretical framework to present a creative and value adding discussion.

3.6 Criticism and Justification of the Method Applied

We chose to conduct a qualitative study as we found this to be the most accurate method to answer our purpose with the resources available. As described earlier, the research conducted by Booz et al. (1982) included both quantitative and qualitative research methods to study the NPD process. Conducting the research in such manner would most likely have strengthened our results. Unfortunately, cost and time restriction prevented us from conducting a research of such scale.

Also, if a quantitative study would have been conducted, followed by qualitative study, there would have been a possibility to generalize the results. As stated above, restrictions prevented us from conducting a quantitative study of such scale. However, by conducting a qualitative study we consider the information gained sufficient to answer our purpose with the study, but we are aware of not being able to generalize our result for all organizations.

Another limitation due to cost and time restrictions is the mixture of phone and personal interviews. We consider the information loss limited, but face-to-face interviews may have given us the opportunity to elaborate more on the subject.

Further, limitations in time and cost also forced us to restrict the number of interviews; an increased number of interviews had made the information administration overwhelming. Possibly, more interviews might have given us richer empirical findings, but as we received similar answers from the interviews that created a pattern, we consider the information gained sufficient to answer our purpose.

More over, if we had had the opportunity to conduct several interviews within the same organization and with different department, we might have been able to strengthen our results to gain greater depth. Considering the restrictions, we find that we gained as much depth possible given our time frame.

Additionally, the topic addressed is to some extent confidential within most organizations, which might have influenced the answers given. We believe that the interviewees responded truthfully to our questions, however, it is difficult to determine if some information was kept from us due to its confidentiality.

4 Empirical Findings

In this chapter, empirical findings of the new product development process and the phases included will be presented. Moreover, packaging will be discussed in relation to the process as well as standardization versus adaptation. The empirical finding will be presented in quotations to avoid our own values being reflected in the chapter.

The information gained from the organizations presented in 3.3, will be treated anonymously. The information should not be directly traceable to a specific organization participating in the study. Therefore the empirical findings cannot be linked to a specific organization exclusively; it is rather a mix of empirical findings.

4.1 The New Product Development Process

Seven out of eight organizations included in the study have a formal NPD process, where the one without a NPD process states that such will most likely be implemented shortly. However, as this organization does not follow a specific process, we find that an interpretation of their NPD would be too subjective. We have therefore chosen to exclude this organization from the presentation of empirical findings regarding the NPD process.

The majority state that they continuously upgrade the NPD process and search for improvements. All processes are built up by phases that are separated by decision gates. Even though all processes have different structures, they basically include the same content.

“We have always had our own NPD models, but we have become more and more structured as we have grown and since tempo is increasing. One must have the framework and structures; otherwise it will be very hard to work through.”

The NPD process for the different organizations varies in the amounts of steps. We found that three was the minimum amount of steps used and seven the most.

Below empirical findings will be presented under headings, reflecting major topics found from the interviews that are relevant to our purpose.

4.1.1 Idea

The initial phase, where ideas are generated, derive from various sources such as the marketing department, R&D or by studying competitor’s actions. Previously, organizations generated ideas by looking at market potential and focused on existing opportunities rather than trends. Thus, today trends that one can see on the market are the most prominent used.

“We follow different trends in the market, through different research institutes, but also different future researchers. We also have days of innovation where we sit down and simply brainstorm.”

Empirical Findings

“Unfortunately we seldom get ideas that are truly viable from other sources than our own. It would have been exiting, but it is not like that.”

One of the interviewees highlights the importance of creativity to enhance the generation of beneficial ideas.

“We are trying not to structure this phase as much, so that the ideas can come to take different forms. Primarily, it is important that as many as possible are creative and active in this process.”

Focusing on consumer needs and trend drivers has recently become more prominent. Even if consumers are the primary source, ideas seldom come directly from here.

“The consumer can seldom express what they want. One therefore has to use more refined methods.”

“We do not believe that one can go out and ask the consumer ‘What do you want?’. Because then you will get an answer about things that already exist. It is too much to ask for a consumer to generate new ideas. I do not believe in asking the consumers what they want, but one can see underlying needs and one can see trends that has to match with our own brand and the purpose with the brand.”

Multinational organizations have additional opportunities to generate ideas since product development occur on several other markets in the world. Products most likely exist in some form in other markets and subsidiaries can then choose to adapt the product to its own market.

The majority of organizations work with a funnel shaped NPD process, where a great number of ideas are generated at first and then narrowed down to a smaller selection.

“One treats the product development as a funnel, one start with a great number of ideas that continuously are screened out and only a few will make it to the market.”

4.1.2 Concept

Consistently, each phase is ended with a decision gate. At the end of the idea phase the idea is formulated into a concept. A decision is thereby taken if the idea is to be developed into a project.

Even though the processes are more or less equal to each other, the stages after idea generation are brought up differently within organizations. A stage used by some organizations is a feasibility study, where ideas are evaluated as a concept, while other organizations begin to develop the product concept straight away.

As markets today are controlled by launching windows, during which products can be presented to the market, many organizations have discovered a need to set a preliminary launching date early in the product development. If a product is to be launched on a market, in Sweden or abroad, the specific launch dates set by com-

merce need to be considered. If that date is missed, it could take several months before getting the opportunity to launch again.

“Often, one has to set a launching date from where we start to count backwards. Previously, one started to develop a product and then when one was satisfied and ready, one launched. It was allowed to take its time. Today, commerce has an enormous power everywhere, not only in Sweden.”

When the concept is developed the majority of organizations have a planning and preparation phase where focus lays on the business analysis, the profitability of the project as well as its manageability due to raw material, production facilities etc.

4.1.3 Product Development and Production

After the decision of continuing the project is taken, the majority of organizations develop the physical product or at least a prototype of it. The production or realization phase also includes other aspects, such as production planning, and providing markets with product specific information.

4.1.4 Launch

The majority of organisations state that the product can be terminated as far as the launch stage. A termination can be due to several reasons such as competitor launches or failure in consumer acceptance.

“One can approach the market and discover that the consumer acceptance is not as high for the product as it was for the prototype, then one has to terminate the project or start over in a previous step.”

“It can be that a concept does not work, it does not live up to what we expected, and it can be other happenings on the market, such as a competitor launching a product making your project fail. This can actually happen when it comes to fast-moving convenience goods.”

4.1.5 Evaluation

Most organizations included some form of evaluation in the NPD process. This step foremost include an evaluation of the profitability of the product after its launch. Another aspect of this evaluation stage is to evaluate the flow of the project itself.

“We follow up the project, by measuring market share for each month and by looking at our own sales for each week.”

“To see if those prognosis and expectations one had on the product have come true and possibly to gain experience for next occasion to avoid making the same mistake twice.”

Some organizations do not include evaluation of the project itself as a step in the process. However, they still highlight it as of great importance and that it might be a potential weakness not to include it in the development process.

4.1.6 Testing

According to the majority of interviewees, testing is an important aspect in the NPD process that is included in several phases throughout the process. For most organizations it appears to be a continuous process throughout the NPD.

“As soon as the product has entered the innovation funnel one starts testing. One initially starts at a rather rough level with qualitative test and in the end of the process one has rather extensive quantitative tests.”

Most organizations conduct consumer tests, such as blind tests and focus groups. However, tests can also be executed internally within organizations where employees function as a panel.

The initial phase is of great importance and one interviewee suggests that higher emphasis should be put on idea screening and conceptual tests.

“I would say that one should devote more time to idea screening or conceptual tests on the whole, look more at trends than we do today.”

Most interviewees agree that the most common application of testing the appeal is using conceptual tests. As the product takes shape testing includes the product to a larger extent.

“I consider tests of both packaging performance and maybe prominently taste tests of products to have increased over the years. So one both tests the concept and a bit later one also tests the concept in combination with the product to see that it coheres.”

“Then we conduct tests with a finished, product, packaging, name, and how we want to communicate all these aspects as a whole.”

It is a common opinion that the degree of testing is dependent on how new the product is. For international organizations testing is conducted to a larger extent if it is a completely new innovation than if it is a line extension.

“It is an assessment from time to time, many materials and raw materials we have previous experience from.”

4.1.7 Flexible Process

The processes in the organizations are often very detailed, where each phase consists of several verification steps that need to be checked before the project can progress. There are differences between the organizations in how strict these steps are followed.

Empirical Findings

“It is actually followed slavishly. It is even so that there is a ‘champion’ with the responsibility to make sure that no one goes outside the frames. It is very tempting to leave the system, but it is also very dangerous to do, since one loses the overview the task.”

“Personally, I find it a bit too theoretical and detailed. The ones who have worked with the process a while might discover that one does not have to go through each detail, it might be something that one can just tick off.”

“One thing is sure, if one should follow this bible to the letter, then you will never be able to finish. Some parts of this process are more important than others, depending on the project. That is why it is good to have the overall picture. So it is good to go through everything, since it includes a lot of risks.”

“If one neglects some steps it often shows in the end.”

The majority also emphasize the difference between working with a new innovation or just a line extension. If it is a new innovation, one has to go through all steps in detail, while if it is a line extension, some steps can easily be left out since the knowledge already exists.

Even though the decision points are firm, the process in between these points can be very flexible. Due to that one has to meet the tight launch date one also has to work with tasks in parallel.

“In a dream world, one would like to work after the model, but often one does things at the same time.”

A critical aspect of a flexible process is the use of project teams. The project team for the product development is, according to many organizations, developed in the early stages of the process, either in the idea generating stage or when the idea has been formed into a concept. The team is mostly a composition of representatives from all departments involved. In several cases the team compose a core team where additional resources can be added if needed. Another approach is to merely appoint a project leader, which in turn gathers the resources needed.

By including most departments in the stages and by ending each phase with a gate decision, feedback is enhanced and the risk for being affected by unexpected problems, forcing the project to be detained, is reduced.

“The risk is pretty obvious that one has to go back to a previous step, however, the purpose of the new process or program is to eliminate this risk, to look at it in an earlier stage.”

4.2 Packaging

All of the interviewees consider packaging a part of the product.

Empirical Findings

“What the package delivers, the product shall taste, it is very important that those aspects are unified.”

“Packaging is a part of the product for us. On one hand, the package has a purely physical role, to protect the content is the primary, which often is included early in the process. On the other hand, the package has the role of a communication media, and one often pays more attention to such things later in the process.”

“One has to present a totality. The consumer does not only buy the content.”

The majority of the interviewees state that packaging appears already in the initial stages of the NPD process, but as mentioned above the communicative part often appears later in the process.

“Generally one has a conception of the packaging already in the idea phase.”

“Packaging can even be the reason for the whole product development project.”

“Packaging is included already in the first stage and is further included through the different steps and gates. So, packaging is included from the very start, maybe even earlier now than in previous processes.”

“Packaging is at least 50 percent of a product. It can even be that packaging forms the basis for the whole process.”

“The package is of course important in the initial stage, since one need a package that protects the product to a rational price.”

If the product has a specific individual character, the communicative part of packaging is often included in the first phase. One interviewee further highlights the communicative part as more important than the functional part for convenience products.

When the majority of organizations develop the product concept, packaging is a significant element to consider.

“The communicative part is continuously included earlier in the process.”

Many interviewees state that since packaging facilitates the purchase decision, especially when it comes to convenience products, it is a very important aspect to consider early in the process.

When the product is to be developed, packaging features such as material, packaging machinery and specifications are appointed. The organizations need to ensure that packaging solutions are viable.

“Sometimes one has to forgo the shape one had in mind from the beginning. The investment is too high and the volume prognosis is too low, and it does not add up to gain profitability in the project.”

Empirical Findings

“In a global organization one might sometimes be tied, so one cannot adapt packaging after a project, it is rather the other way around. Depending on production facilities one has access to; one is not able to be flexible.”

Before launch the organizations provide detailed information about the product to retailers such as product specifications including packaging measures for shelf space.

There are differences in opinions whether or not the importance of packaging in the NPD process has increased.

“I believe that this is the case. I think it will have even more significance in the future.”

“Recently the packaging has become a very critical aspect of the whole process. The packaging can, or mostly does, determine the whole process.”

“From my own experience I cannot say that I do. Packaging has always been very, very important, both as packaging so to say as well as a communication element. But I do not think it has a larger impact than it had 10-20 years ago.”

“It has always been of great importance. After all the purchasing decision is taken in store, in that environment one does not have many other possibilities to communicate than through the package.”

4.2.1 Material

There is a difference in opinion when it comes to materials used in the package. Some say that it is an ongoing process to update material, while others put less emphasis within this area due to the incapability of finding new material solutions.

“There is a lot going on within this field, both when it comes to the protection capability of the material and of course its ability to communicate.”

A factor that influences the choice of material appears to be environmental influences. One even states that the environmental requirements determine the material used. All organization put a lot of resources into avoiding inappropriate material.

“During some periods there is a lot of environmental thinking and lots of discussions. Presently, it is very quiet within this area, but the day the discussion is brought up again it can be beneficial to already have an environmental friendly material.”

“It is a balance. One definitely have to follow all the rules and regulations and put a lot of resources to have control over it, certificates etc., but not sacrifice the whole brand.”

Some state that minimizing the material has a two-sided positive effect. It is not only environmental friendly, but also cost efficient.

4.2.2 Testing

As discussed earlier, packaging is included in the conceptual testing of products. These tests are of qualitative character, such as focus groups and panels. To test the product internationally, one organization states that they make qualitative tests in different markets.

An example of testing the communication of the package displays a picture of the product for the consumer. The consumer is then able to judge the concept and packaging by putting plus and minuses on the display. If the organization is not able to make a prototype of the packaging, the package and product as well as the purpose of the product can be displayed verbally. After the product is actually developed, the consumer can test the product at home being able to feel and touch the product.

One organization further states that the communication capability is tested on a regular basis through marketing research and focus group discussions.

“We use the information as a base for decisions and evaluate how we communicate the package.”

Not all of the interviewed organizations conduct testing specific to the communication of the package.

4.3 Standardization versus Adaptation

Many of the interviewees imply that the complexity of standardizing the package increases with the amount of markets on which they are active. One should act global, but at the same time be able to adapt to local markets.

“One should think global, act local.”

The aim is often to standardize the offerings to as large extent possible. However, the importance of adaptation is prominent for all organizations, both concerning volume and communication.

“What is special is that there are different demands in different countries. That is; the mistake often made, is that one use the same concept in Germany, England and Sweden, but that does not work. It is far too diverging.”

“If one cannot sell the product, it does not matter how standardized it is. It is the market that is in control, always, always.”

Many organizations try to standardize their offerings; however, they are often required to adapt some aspects to local markets.

“Packages are increasingly becoming standardized in one way or another. One can look as standardization of packaging in two different ways. On one hand, there are packages that are standard packages, such as bags and capsules, and then there is the opposite; packages that are generated for an individual product. That is one aspect of standardization, the other one is standardization over markets. In

Empirical Findings

the last part it is definitely so that we are trying to find packaging that is similar on as many markets as possible.”

“When it comes to packaging the structural package is often the same, but the design often differs. Packaging is a part of the communication which is local; one does not perceive things in Sweden in the same way as one does in Italy. Consequently one has to express oneself in a different manner.”

Another aspect that was brought up was the adaptation to local laws. All organizations have to adapt to regulations regarding local language and description of content. One major decision to be taken is whether to use multilanguage packaging or adapt each to the local market.

“In purpose of cost reduction, one was supposed to have all language on the package and only print ones. But the information got overwhelming, it was so much information one lost focus. It was very hard to read and difficult to see which taste it actually was.”

“There are a lot of languages on this product. The text becomes small and unreadable.”

“There is a problem. The more regulations there are about declarations the fewer languages will fit the package.”

Most organizations form language clusters, to which they offer the exact same package. However, if it is possible, depending on the country and product, the product can be fully standardized.

Not only legal aspects determine the degree of standardization, one also needs to consider consumer preferences such as volume of the content. A product can be sold in different sizes because of legal reasons, but also as a result of consumer preferences.

One organization even states that they are now trying to increase the standardization through a unification project, which means that markets are divided into clusters where products are the same.

Another aspect of standardization is the ability to recognize a product worldwide. According to interviewees consumers are travelling more frequently. It is therefore important that one recognizes the product universally. Even though materials might change one should always be able to recognize the brand. This opportunity increase as the brand is expanding.

“For big brands the packing is important. One perceives the brand the same way anywhere in the world. Even though product volume differs one should still be able to recognize the graphical language. You want to recognize your brand. Rationally, functionally and emotionally, the package shall mediate all these values.”

5 Analysis

In this chapter, empirical findings are discussed in relation to the theoretical framework. The new product development process is at first briefly introduced. Further, packaging is discussed in relation to phases found to be relevant within the process. To gain an international perspective, a discussion about standardization and adaptation is presented. The chapter ends with a summary of the analysis, presented as a visual modification of the new product development process, where packaging is highlighted.

5.1 The New Product Development Process

By studying the NPD processes in organizations, it is found that the basis of the process exclusively takes the form of an activity-stage model, although the amount of steps differs between organizations. The model initially discussed by Booz et al. (1963) has six stages and the process later described by Kotler et al. (2002) has nine stages. The empirical findings from the study imply that organizations are now decreasing the amount of stages making each phase more detailed. Further, it facilitates activities to occur in parallel, which are aspects brought up in the cross-functional and network models (Trott, 2002).

According to Trott (2002), the information flow in a cross-functional model is passed back and forth between departments, which lengthen the NPD process. Hence, working with activities in parallel creates an opportunity for a shortening the process, which is the case for the organizations studied. Further, the network model focuses on accumulation of knowledge from various departments. As knowledge continuously increase the project progresses. In the organizations studied, the departments were involved in all stages. However, focus lies on activities, rather than merely gathering as much information as possible from various departments. A further model discussed by Trott (2002) is the departmental-stage model. As Trott (2002) states, the departmental-stage model is obsolete. The study further verifies this argument since departments work in parallel to support activities.

“In a dream world, one would like to work after the model, but often one does things at the same time.”

Each step in the NPD process ends with a go-/no go decision, which is reflected in the decision-stage model (Trott, 2002). As previously said the focus still lies within the activities to be performed in the process. The activity-stage model used by Kotler et al. (2002), does not discuss decision gates as an element of the process, nor does it bring up the element of feedback. However, Annacchino (2003) further discuss the NPD process as an interactive where different stages are constantly evaluated after being processed. This may facilitate the use of feedback and decision-making between departments. As decision gates are prominently used in practice, it can be considered as contribution to the activity-stage model to have critical decision gates clearly stated in the model.

A conversion-process model, which implies that input is transferred to output without any detailed explanation (Trott, 2002), cannot be considered relevant as it is too loosely structured. As the organizations studied are large in scale and conduct international operations, there is a need for structure in their development process.

“We have become more and more structured as we have grown and since tempo is increasing. One must have the framework and structures; otherwise it will be very hard to work through.”

The following sections 5.1.1 to 5.1.5 are structured as phases of the NPD process that are considered relevant to reflect how packaging is taken into consideration within the process.

5.1.1 Trend Analysis and Idea Generation

The model developed by Booz et al. (1963), which was further modified by Kotler et al. (2002), has an inside-out perspective, where one sees to the own organization for product development ideas. In this process, ideas are generated from internal sources, customers, competitors, distributors and suppliers (Kotler et al., 2002). By looking at the processes within the organizations, it is clear that ideas are mostly generated from market trends, which indicates an outside-in perspective.

“We follow different trends in the market, through different research institutes, but also different future researchers.”

Trends are not directly addressed in the model used by Booz et al. (1963/1982) and Kotler et al. (2002). However, from the study it was found that analysing trends is the most common way of generating new ideas. Further it was found that most organizations do not believe in asking the consumers directly what they want, since they would most likely give an answer of a product that already exists. Therefore it can be concluded that consumers are not a good direct source for NPD innovation, since filling a gap in the market is too much to ask of consumers. Trend analysis is a more accurate way of finding new ways of innovation. This supports the previous statement of an outside-in perspective, since organizations has to look beyond the obvious in their closest environment.

A multinational corporation can follow the process discussed above about trends, and further has the possibility to bring in products already produced abroad by other subsidiaries and modify them to fit the needs of their own market.

As the organizations studied, as well as researchers, consider packaging to be a part of the product, the role of packaging is seldom clearly defined in the process. The interviews gave a somewhat vague idea of where the package actually enters the process, which is most likely due to lack of detail regarding packaging in the various steps. However, an understanding based on the interviews is that packaging is included early in the process. Including the package in the initial stage of the process, especially apply when the development involves an innovation. A packaging solution can

even be the factor triggering the process, as a new packaging solution can create further opportunities.

In the response model, which focuses on the response of individuals and organizations to a new project idea or proposal, the purpose is to describe how organizations react to internal and external stimuli (Trott, 2002). It can be considered to be a possibility for generating ideas, but not a basis for a whole process since it lacks structure. As described above, trends appear to be the primary source for idea generation, rather than response to stimuli. As a result, the phase more or less reflects a trend analysis of the market.

Booz et al. (1982) and Kotler et al. (2002) describe the first step in the NPD process as a new product strategy development, where focus lays on integrating various departments to follow a new strategy to generate ideas. From the study, it was found that organizations do not include this as a step in the process. This can be due to that organizations have a predefined product strategy, and rather than developing a new strategy they aim to match the product with the purpose of the brand.

“One can see underlying needs and one can see trends and then one has to match that with our own brand and our purpose with the brand.”

This is further supported by organizations wanting the product to be perceived in the same way all over the world. Consumers want to recognize their product package worldwide. If organizations decide to diversify their offerings, a new product strategy is to be developed. However, this is not shown in the NPD processes followed by the organizations studied. Consequently, it indicates that organizations follow the same process independently of which convenience product it involves and the strategy of it, therefore it implies that new product strategy development should not be included in the NPD process.

Further, Booz et al. (1982) and Kotler et al. (2002) have two separate steps for idea generation and idea screening. The study shows that organizations discuss these two elements under the same step. The activities are also conducted in parallel, which further support the decision of treating these aspects as a single step. Moreover this step can be considered as an interactive process, where ideas are processed by several departments, before a go-/ no go decision is taken. The process in which ideas are selected can be seen as dynamic and ideas can be screened simultaneously as other ideas are generated. Even though the NPD process should be structured to create a stable basis, the idea phase could benefit from being loosely structured, to stimulate creativity.

As Terpsta and Russow (2000) state, the idea phase is one of the most complicated stages in an international NPD process, since preferences and marketing capabilities may vary between countries. This statement is further supported by the findings of the study.

“The special thing is that there are different demands in different countries.”

“One should think global, act local.”

Therefore, this stage can be considered as more resource consuming for international organizations than for domestic. This is further supported by interviewees who state that more emphasis should be put on this stage and the stage discussed next, that is; the concept development stage.

5.1.2 Concept Development

After ideas are generated, theorists include a business analysis phase (Booz et al., 1982) or alternately a concept development and testing phase (Kotler et al., 2002). The information gained from interviews agrees with these theorists; that idea, concept and image of the product is stated. The profitability of the project is also estimated and several tests are conducted to determine if the new product appeals to target consumers. Both the content of the product and its communicative part are tested, physically, if possible, or verbally. However, from the interviewees, it was found that not all organizations test the communicative aspect of the package. An explanatory reason can be that organizations develop the communicative aspect of the package in a later stage, and initially focus more on the functionality. Usually, organizations have standardized package solutions, between which they can choose. They are limited in their ability to choose a new functional package, so functional aspects have to be decided before the communicative part is developed. If the product is supposed to have a specific personal character, the communicative part will be included in this stage.

From an international perspective, the conceptual testing can be associated with the VIEW-test, meaning that the package should reflect the product through aspects such as visibility, information revealed, emotional impact and workability (Albaum et al., 2002). As stated by several interviewees, the concept needs to reflect a totality, which can be considered as the most important aspect of this stage.

“One has to present a totality. The consumer does not only buy the content.”

In this stage most organizations develop a project team, which is usually made up by a core team that in turn can include additional resources. Kotler et al. (2002) do not discuss the development of a project team as a part of the NPD process, although it is defined by Booz et al. (1963) in their business analysis step presented in appendix 3. Even though the model has evolved since then, this undertaking seems to be conducted within this phase even today.

Several organizations state that as soon as the concept is developed, there is an increased importance of setting the launch date at an early stage. Many organizations stress the growing power of the market due to launching windows. Setting a preliminary launch date has therefore become an important task organizations have to consider as the concept is set. This has not been discussed earlier by researchers, but it appears to be of great importance today and will increase further in the future.

Kotler et al. (2002) added marketing strategy as a separate step to the model developed by Booz et al. (1963/1982), in which the marketing strategy and budget are set. These aspects may profit from being developed simultaneously, as one must ensure

that the budget will hold and that, for example, the target market is set, to be able to develop and test the concept. For international organizations the complexity of this step increase as they must consider multiple markets (Terpsta & Russow, 2000). As the organizations in the study are international, this phase requires further focus.

5.1.3 Product Development and Production

After the concept has been approved and the decision has been taken to further develop the product into a physical product, the project reaches product development and production. Packaging as well as other features of the actual product should be clearly defined, functionally as well as communicatively, to be carried out in production. As the NPD process progress to this stage, the studied organizations form a production plan as well as provide the market with product specific information.

According to Albaum et al. (2002), people's preference of package materials also varies internationally, where the environmental concern is prominent. Some organizations state that environmental concerns are always an important aspect to consider, although presently it is not a hot topic. One of the organizations stated that even though environmental concern is of high importance, one cannot sacrifice the basis of the whole brand.

As Kotler et al. (2002), as well as Terpsta and Russow (2000) state, the R&D department plays an important role in this phase as the products viability is controlled. A prototype can be developed before the production actual starts to enable testing of the physical product. Testing continues to be a critical activity also in this stage. However, tests are now more related to the physical product and how it fits the concept with its appeal, effectiveness and functionality.

“So one both tests the concept and a bit later one also tests the concept in combination with the product to see that it coheres.”

“Then we conduct tests with a finished, product, packaging, name, and how we want to communicate all these aspects as a whole.”

Kotler et al. (2002) treat the product development as a separate step in the process, while most organizations discuss product development and production in a unified phase or as two separate phases. In the analysis, these steps will be viewed as a unified phase as they are closely integrated and since activities within them mostly occur in parallel.

Kotler et al. (2002) present test marketing as an eight step in the process before the actual launch, which is defined as the commercialization phase. They suggest that the product and marketing program are introduced into a more realistic environment, to test its features including packaging. As described earlier the organizations interviewed consider testing already in the concept development stage, where testing of packaging is included. Testing is then a continuous activity throughout the process.

Kotler et al. (2002) further discuss three different approaches of testing. However, most of the organizations studied did not conduct tests in a standard, controlled or

simulated test market. This can be due to the risk of letting confidential information reach competitors etc. It can also be a question about costs, since these tests are very expensive. Terpsta and Russow (2000) also discuss the importance of finding representative countries and regions, considering the international product launch. One of the interviewees said that they conducted tests in different markets; however this took place earlier in the process during the concept development phase.

5.1.4 Launch

Kotler et al. (2002) end the NPD process with a commercialization stage, where the product is introduced to the market. The organization studied agreed that the launching window set by the market, is a critical factor in this stage. Not to miss the launch windows, and risk several months of delay or that competitors launch a similar product simultaneously, is vital for the whole process.

5.1.5 Evaluation

A further development of the process, found by studying the organizations, is the importance of evaluation of the process and product launch. Some even included it as a step in the product development process. The organizations consider an evaluation of the process to contribute with input for improvement of future product development. Some organizations do not include an evaluation of the project itself as a step in the process, merely the profitability is evaluated. However, they still highlight a project evaluation to be beneficial to avoid future mistakes, and that is a potential weakness not to include it in the development process.

“To see if those prognosis and expectations one had about the product have come true and possibly to gain experience for next occasion to avoid making the same mistake twice.”

The evaluation aspect of the NPD process has not been brought up by theorists, such as Onkvisit & Shaw, 2004; Kotler et al. (2002); Trott (2002); Terpsta and Russow (2000); Gultinan et al. (1997); Urban and Hauser (1993); Booz et al. (1982). One theorist that discusses the evaluation criterion is Annaccino (2003). However, he discusses evaluation as a continuous element throughout the process, where each idea should be tested and evaluated. Many of the organizations studied, further discussed evaluation as a separate step placed in the end of the NPD process; therefore, it is vital to include it in a modified process.

From the discussion above it is clear that packaging is integrated in the various stages of the NPD process. Further, a discussion of whether packaging has increased in importance within the NPD process will follow.

5.2 The Importance of Packaging

The importance of packaging is rapidly increasing, and according to McDonough (2003), more time and effort are often spent on the package design than on the actual product. However, there are differences in opinions between the interviewed organi-

zations regarding the importance of packaging in the NPD process. Some stated that packaging is of vital importance, but that it always has been of significance in the NPD process. Others state that it is of greater importance today and will become increasingly important in the future as decisions are made on a few seconds in store. However, all interviewees agreed that packaging is a very important element when communicating the product to the end customer.

Section 5.1.3 will discuss how organizations deal with the level of package standardization in the NPD process.

5.3 Standardization versus Adaptation

According to Albaum et al. (2002), standardization and adaptation can involve both the core product and the package. As stated by some of the organizations, the content of the product might need to be adapted to different markets. People may, for example, have different preferences for volumes and communicative aspects.

An interesting aspect brought up by the organizations is that packaging can be adapted or standardized in different ways. Either by adapting the communicative design to different markets, but still use the same functional package, or by adapting the functional package and standardize the communicative part. An organization can also choose to standardize the whole concept or vice versa; conduct full adaptation, which is supported by Kotler et al. (2002).

According to Albaum et al. (2002) adaptation can be of mandatory or voluntary character. Many of the organizations studied, mention the need to adapt the product for legal reasons, but also because consumer preferences differ between countries. Albaum et al. (2002) further stress that complete standardization is therefore not always beneficial, which is supported by the study.

“If one cannot sell the product, it does not matter how standardized it is. It is the market that is in control, always, always.”

A reason for standardization is the possibility to develop a worldwide consistent image, but also to gain economies of scale (Kotler et al., 2002). One of the studied organization state that they are working with a unification project to increase standardization. Further, some organizations stress that as travelling has increased there is a need for worldwide recognition of products. This is supported by Albaum et al. (2002) that state that some degree of standardization is desirable, especially regarding convenience goods where the package needs to attract buyers. According to some organizations the benefit of worldwide recognition increases as the brand is expanding. Hence, the package needs to mediate consistent values such as rationality, functionality, and emotional appeal.

One aspect that might complicate standardization is the need for adaptation to local languages. Multilanguage is today becoming more prevalent as a way of standardizing the package for convenience goods (Albaum et al., 2002). However, according to many of the organizations studied, the use of multilanguage is cost efficient, but it

can also make the text indistinct. Legal issues are also brought up in this discussion as, the more regulations there are about declarations, the fewer languages will fit the package. There is therefore a need for balance between the amount of standardization and adaptation, which by some organizations have been solved by using language clusters. Moreover, the complexity of standardization and adaptation increase with the amount of markets in which one is active.

The degree to which a package needs to be standardized is considered already at the beginning of the NPD process. As international organizations have the advantage of following trends and having products in several markets, they can transfer products from one market to another. They can then choose to adapt it to the new market or introduce it unchanged on another market. Further, it is indicated that standardization and adaptation has its major significance in the concept stage, but it is also important in the product development and production phase. When developing the concept, the organizations have to make sure that the concept is valid for different markets. As stated by some organizations, people have different preferences of volumes and communication appeal, which is why it is important to consider in the conceptual phase. In the product development and production phase the organizations have to check for viability of either standardization or adaptation. None of the organizations in the study use complete standardization nor complete adaptation of the package for different markets; they all use a mixed approach.

The following section will summarize the analysis and aim to provide an improvement of theory by modifying the product development process and adding a more clear view of the integration of packaging as well as the level of standardization. We have chosen to illustrate our findings in a modified model presented in figure 5-1. The model is not used by a specific organization; it is rather a summary of how we visualize our findings based on the analysis.

5.4 A Modified New Product Development Process

From the analysis it can be concluded that the organizations studied do not follow exactly the same process as presented by Kotler et al. (2002), it is rather a modified version. None of the organizations follow an identical procedure, however some patterns were found when analyzing the empirical findings in contrast to theory. As mentioned above, the stages have been compressed, which allows activities to occur in parallel. As a result, the process is more interactive, which is displayed in figure 5-1.

The model displayed in figure 5-1 has more of an outside-in perspective, since trend analysis founds the basis for idea generation. In this phase, packaging can serve as a source for new ideas and solutions for functionality. Ideas are screened and the phase ends with a go-/no go decision whether or not to develop the idea further into a concept.

In the concept development phase, packaging has its major significance. Since packaging is a part of the product, the concept needs to reflect a totality. The primary values that the package should mediate are stated and functional aspects are considered. It is

ensured that the package reflects the product. Testing is a major aspect in this stage in form of concept testing. The package should reflect the product by its visibility, information, emotional impact and workability. As these organizations conduct international activities, decisions regarding standardization and adaptation needs to be taken, such as the amount of languages represented on the package and the volume of content the package should contain. The package further needs to provide a consistent image for worldwide recognition. Adaptation can be due to both legal and perceptual reasons. Other important aspects in this stage are conducting a business analysis and setting a launching date.

After a decision is taken to develop the concept into a physical product the product development is initiated. Testing continues in this phase by developing a prototype or a finished product, where a physical package is produced with complete layout. The product is tested in relation to the concept, where packaging is included. Also, the material used for packaging is chosen and further a production plan and product specific information are generated to be provided to the market. By adapting a consistent image economies of scale can be gained in production (Kotler et al., 2002)

The product can be terminated as far as the decision to launch is taken. The ability to adapt to the preset launching window is a critical factor in this stage.

The last phase in the new product development process is the evaluation phase, where experience gained from the project serves as input for improvement of future product development. Moreover, the success of the launch is evaluated.

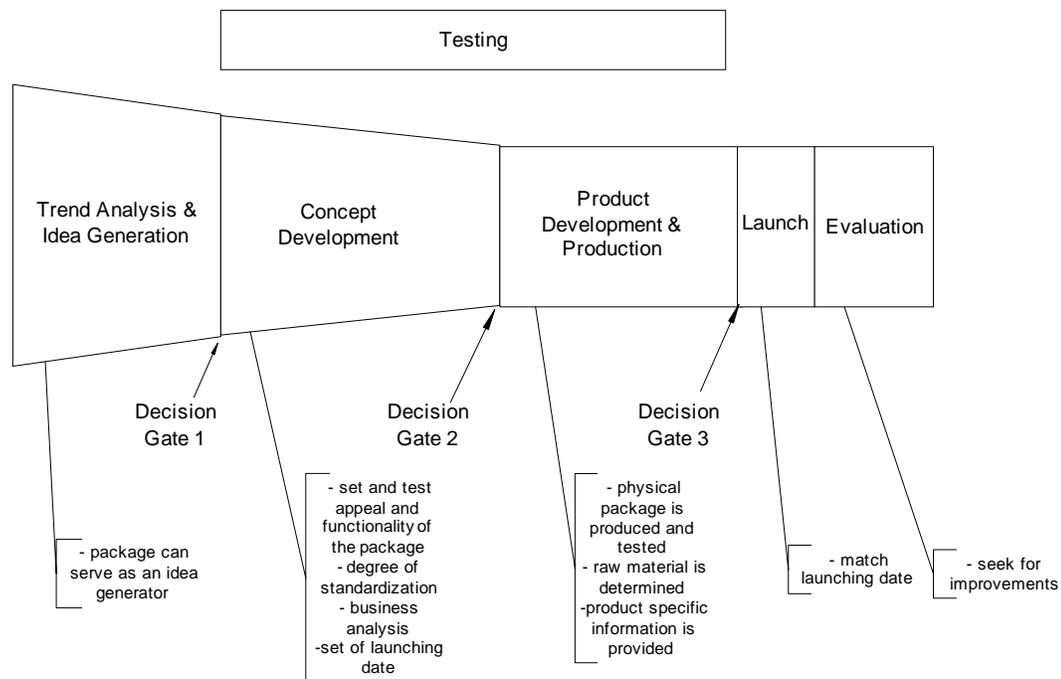


Figure 5-1 Modified NPD process

Analysis

The funnel shape of the model illustrates the screening of ideas and the length of each phase symbolizes the proportion of emphasis put on the individual phase. The comments connected to each step all refer to the package's influence on the process.

6 Conclusion

In this chapter, the findings from the analysis will be discussed in direct relation to the purpose and the research questions. Our conclusion is based on the analysis and figure 5-1.

The purpose of this study was to investigate how packaging of convenience goods is an integrated part of the international new product development process. The main questions that we sought answers to were: In which stages of the new product development process is packaging actually taken into consideration?; Has packaging increased in importance within activities of the new product development process?; How do organizations deal with standardization and adaptation of packaging for international markets in the new product development process?

Regarding our first question, in which stages packaging actually taken into consideration, we conclude that packaging is involved in all stages. It can be a source for idea generation; it is further elaborated on in the concept development phase, physically carried out in the product development and production phase, and can cause a product to fail even in the launch phase. Further, it can be brought up in the evaluation phase, where one search for improvements. Figure 5-1 displays the integration of packaging in the NPD process.

The second question, whether or not packaging has increased in importance within activities, is hard to determine from our findings. Even though theory states that packaging has increased in importance, the empirical findings differed, as some stated that packaging always has been important. By studying theory as well as our empirical findings, we agree that packaging always has been important. However, even if it is hard to determine if packaging has increased in importance through the whole NPD process, we believe that packaging has increased within the concept development phase. The development of concepts appears to have increased in significance, where packaging is an important aspect especially concerning international products. Attributes such as consistency of image, use of material and number of languages therefore needs to be considered for a variety of markets. As a result, we conclude that packaging indirectly has increased in significance in the NPD process through concept development.

For the final question, how organizations deal with standardization and adaptation of packaging for international markets in the NPD process, we found it to be an aspect relevant to all organizations in the study. It is already considered in the first stage as international organizations can see trends in several markets and choose to adapt an existing product to fit a need in another market. Further, it is a major part of the concept development phase, since the decision of whether to standardize or adapt the package is considered into detail. In the product development and production phase, the physical package is developed to see if the degree of standardization is viable. In international markets, the package can seldom be completely standardized or completely adapted; it is always a question of trade-off.

7 Final Discussion

In this chapter a discussion regarding the new product development process will be presented as well as justification and critic to the process presented by theorists. Additionally, the chapter will end with suggestions for further research.

7.1 Reflections upon the Research

The NPD process originally initiated by Booz et al. (1963/1982) and further elaborated on by Kotler et al. (2002), in many aspects reflects activities that are used by organizations in their NPD process. However, as our results show it can be modified to fit its practical application today. Saren (1984) criticized the activity-stage model, as the process is broken down to component parts, presenting an orderly and logical process. As Saren already discovered in 1984, the NPD process, in reality, is seldom rational and ordered. Due to these reasons the process should be shortened to put more emphasize on the simultaneous nature of activities throughout the process.

By shortening the process, to perform activities in parallel, feedback between departments is enhanced. Additionally, the use of decision gates facilitates a smooth development process, since communication and problem solving is encouraged between departments. Aspects such as these have previously been brought up through separate NPD models; however, integration into a unified model would be more beneficial for the whole NPD process as all aspects can be taken into consideration simultaneously.

As shown by the research these organizations followed a rather developed NPD process. However, this might be a result of the organizational size and its relatively long history in the industry. If the research would have been conducted on smaller organizations that are established recently, the findings probably would have differed. Small organizations might not have a process, because of cost restrictions or because flexibility is of higher importance.

A thought that crossed our minds was that the increase in use of private labels for convenience goods must have a great impact on packaging. The importance of packaging might as a result increase as they have to mediate higher value for customers as they compete with low price brands. The package needs to mediate higher value that is of greater significance than a lower price. This indicates that packaging might be more important in the future. Another aspect that we thought about was why packaging elements are not specified in the NPD process. In the NPD process discussed by for example Kotler et al. (2002) activities for developing the package are not specified. The product and package are seen as unified item, but still we consider it crucial to define which activities that belong to respectively element and also who is responsibly for these activities to be carried through. Some of the organizations studied had detailed processes where activities were specified. However, in some cases it seemed that more structure and detail were needed. There was uncertainty of when different activities actually took place in the process. Of course this can be a result of activities taking place in parallel and also the complexity of the process, but we believe that more detail and structure probably would benefit the process.

If organizations actually follow the predefined NPD process into detail is another aspect to consider. The organizations studied differed in how strict they followed the different activities into detailed. Some are more or less forced to follow a complete process since it is stated in the organizational policies, others follow it more loosely and one even stated that if they should follow a process into detail they would never be able to finish the product in time. Certainly, the need of following the process was dependent on the level of innovation of the project. However, many of the organizations in the study highlighted the importance of having an overall picture and structure, which a process would entail. Therefore we conclude that a detailed NPD process is beneficial for an organization, preferably where all activities are presented in detail, but depending on the level of product innovation, some of the activities should be easy to tick off. A complete new innovation most likely requires a more thorough review of the process, while many activities are already known when, for example, conducting line extensions. However, we are aware that our thoughts are not able to be generalized, since we conducted a qualitative study, but we found these aspects interesting to discuss.

A possible reason to why our results diverged from previous studies that form the theoretical framework is the difference in research methods. When Cooper (1983) sought to uncover how the NPD process actually occurs, he conducted 58 case studies from industrial organizations. The studies conducted by Booz et al. (1963/1982), were based on in-depth interviews in combination with a quantitative study, where only 40 percent dealt with consumer products. As our study had a purely qualitative approach directed only towards organizations producing consumer goods, some of the differences in findings can most likely be directly related to this. However, from our findings it is hard to define which differences are due to the choice of research method and which are due to differences between theory and practical use.

During our study we discovered some interesting subjects for further research. These will be presented in the following section.

7.2 Further Research

We found that it would have been an advantage to interview representatives from several departments within the same organization to have gained deeper insight of the subject. A suggestion for further research would therefore be to conduct a case study where multiple departments would be included. From such research a greater depth and a more comprehensive picture of what is included in each step, in the NPD process, might be gained.

Further, it might be interesting to study the significance of packaging for different industries and how it differs between them. As packaging of convenience goods is very important, due to that purchases of such products are made on impulse and in store, it is highly likely that packaging within other industries is less integrated in the NPD process for other goods.

As media technology is rapidly evolving there is an increasing opportunity to “dress” products with attributes that symbolize it. Before such media existed the package was

Final Discussion

basically the only possibility to mediate product characteristics. An interesting aspect to study would therefore be if other attributes, additional to the package, that mediates the product is taken into consideration in the NPD process, such as commercials on TV and in magazines. Does the role of other attributes affect the design of the package, such as how it will appear on TV? This might be applicable to implement in the concept development phase.

List of Reference

- Albaum, G., Strandskov, J., & Duerr, E. (2002). *International Marketing and Export Management*. Essex: Pearson Education Limited.
- Annacchino, M. A. (2003). *New Product Development-From Initial Idea to Product Management*. Amsterdam: Library of Congress Cataloging-in-Publication Data.
- Arbnor, I., & Bjerke, B. (1997). *Methodology for Creating Business Knowledge* (2nd ed.). California: SAGE Publications, Inc.
- Bramklev, C. (2003). *Concurrent Development of Product and Packaging-Towards an Intergrated Development procedure*. Sweden: KFS i Lund AB.
- Befring, E. (1994). *Forskningsmetodik och statistik*. Lund: Studentlitteratur.
- Booz, E., Allen, J., & Hamilton, C. (1963). *Management of New Products*. New York: Booz, Allen & Hamilton Inc.
- Booz, E., Allen, J., & Hamilton, C. (1982). *New Products Management for the 1980s*. New York: Booz, Allen & Hamilton Inc.
- Bradley, F. (1999). *International Marketing Strategy* (3rd ed.). London: Prentice Hall.
- Cantzler, I. (1991). *Vad tycker kunden, en bok om kundattitydsundersökningar*. Malmö: Liber ekonomi/ Almqvist & Wiksell Förlag.
- Campbells. (2005). *Homepage*. Retrieved 2005-04-27, from <http://www.campbells.se>
- Christensen, L., Andersson, N., Carlsson, C., & Haglund, L. (2001). *Marknadsundersökning-en handbok*. Lund: Studentlitteratur.
- Chrzanowska, J. (2002). *Interviewing Groups and Individuals in Qualitative Market Research*. Wiltshire: SAGE Publications Ltd.
- Cooper, R. G. (1983). The new product process: an empirically-based classification scheme. *R&D Management*, 13, 1, 1-13.
- Dart, P. (1999). Packaging and design. In M. J. Baker, *The IEBM Encyclopedia of Marketing* (pp.368-375). London: International Thompson Business Press.
- Eklund, J., Bellefleur, D., & Jasslin, L. (2003). *Communication with the Package*. Lund: Tetra Pak.
- Guiltinan, J. P., Paul, G. W., & Madden T. J. (1997). *Marketing Management-Strategies and Programs*. New York: McGraw-Hill.
- Jain, S. C. (2000). *Marketing, Planning & Strategy* (6th ed.). Ohio: Thompson Learning.

List of Reference

- Johnson, D., & Turner C. (2003). *International Business-Themes and Issues in the Modern Global Economy*. London: Routledge.
- Kotler, P. (1997). *Marketing Management-Analysis, Planning, Implementation and Control* (9th ed.). New Jersey: Prentice Hall, Inc.
- Kotler, P., Armstrong, G., Saunders, J., & Wong, V. (2002). *Principles of Marketing* (3rd European ed.). Essex: Prentice Hall Europe.
- Kraft Foods Inc. (2005). *Homepage*. Retrieved 2005-04-27, from <http://www.kraftfoods nordic.com>
- Krag Jacobsen, J. (1993). *Intervju: konsten att lyssna och fråga*. Köpenhamn: Hans Reitzels Forlag.
- Lantz, A. (1993). *Intervjumetodik*. Lund: Studentlitteratur.
- Lekvall, P., & Wahlbin, C. (2001). *Information för marknadsföringsbeslut* (4th ed.). Göteborg: IHM Publishing.
- Lindström, G. (1994). *Idéutveckling-produktutveckling: En studie av exploatering av oberoende uppfinningar*. Linköping: Ekonomiska institutionen, Tekniska högskolan i Linköping.
- Malhotra, N. K. (2002). *Basic Marketing Research- applications to contemporary issues*. New Jersey: Pearson Education, Inc.
- Maxwell, J. A., & Loomis, D. M. (2003). Mixed Methods Design: An Alternative Approach. I. A. Tashakkori & C. Teddlie (red.), *Handbook of Mixed Methods in Social & Behavioural Research* (s.241-271). Thousand Oaks: Sage Publications, Inc.
- McDonough, J. (2003). Package design. In J. McDonough & K. Egolf, *The Advertising Age- Encyclopedia of Advertising*, 3. (p. 1181-1184). London: Fitzroy Dearborn.
- Olsson, A., & Györei, M. (2002). Packaging throughout the Value Chain in the Customer Perspective Marketing Mix. *Packaging Technology and Science*, 15, 231-239.
- Onkvisit, S., & Shaw, J. J. (2004). *International Marketing-Analysis and strategy* (4th ed.). London: Routledge.
- Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods* (3rd ed.). Thousand Oaks: Sage Publications.
- Paine, F. A. (1991). *The Packaging User's Handbook*. Glasgow: Chapman & Hall.
- Perreault Jr, W. D., & McCarthy, E. J. (1999). *Basic Marketing-A Global-Managerial Approach*. USA: Irwin McCraw-Hill Companies, Inc.

- Rettie, R., & Brewer, C. (2000). The verbal and visual components of package design. *Journal of Product & Brand Management*, 9, 1, pp. 56-70.
- Ritchie, J., & Lewis J. (Eds.). (2003). *Qualitative Research Practice*. London: SAGE Publications Ltd.
- Santa Maria. (2003). *Homepage*. Retrieved 2005-04-27, from <http://www.santamaria.se>
- Saren, M. A. (1984). A classification and review of models of the intra-firm innovation process. *R&D Management*, 14, 1, 11-24.
- Semper. (2004). *Verksamhetsåret/Company report 2003/2004*. Stockholm: AB Abrikadabra Reklam & Marknadsföring.
- Swedish Export Directory (2000). *Food from Sweden*. Retrieved 2004-04-01, from <http://www.foodfromsweden.com/food/>
- Svenning, C. (2003). *Metodboken*. Lund: Lorentz förlag.
- Terpsta, V., & Russow, L. C. (2000). *International Dimensions of Marketing*. Ontario: Thompson Publishing inc.
- Toms-Webes AB. (2005). *Homepage*. Retrieved 2005-04-27, from <http://www.webes.se>
- Trost, J. (1997). *Kvalitativa intervjuer*. Lund: Studentlitteratur.
- Trott, P. (2002). *Innovation Management and New Product Development*. Harlow: Pearson Education Limited.
- Unilever. (2005). *Homepage*. Retrieved 2005-04-27, from <http://www.unilever.se/>
- Urban, G. L., & Hauser, J. R. (1993). *Design and Marketing of New Products*. New Jersey: Prentice-Hall Inc.
- V&S Absolut Spirits. (2005). *Homepage*. Retrieved 2005-04-27, from <http://absolut.com/>
- Wasa. (2003). *Homepage*. Retrieved 2005-04-27, from <http://www.wasa.com>
- Zikmund, W. G. (2000). *Business Research Methods* (6th ed.). Orlando: Harcourt, Inc.

Appendix 1 Intervju guide

Swedish version

- ✚ Personlig introduktion. (Befattning, antal år inom organisation och område, utbildning)
- ✚ Hur ser produktutvecklingsprocessen ut på företaget? (Antal steg)
- ✚ Finns någon utvecklad produktutvecklingsplan? (Ordning, hur detaljerad, tillgänglighet)
- ✚ Hur ser ni på förpackningen i förhållande till produkten? (Separat, enhetlig)
- ✚ Vilken roll har förpackningen i produktutvecklingsprocessen?
- ✚ I vilket/vilka steg behandlas förpackningen? (Integration)
- ✚ I vilket/vilka steg har förpackningen en avgörande roll? (På vilket sätt)
- ✚ Är era produkter/förpackningar standardiserade eller anpassas de till olika marknader? (Vilka aspekter, material, språk)
- ✚ Anser ni att förpackningen har fått ökad betydelse i produktutvecklingsprocessen? (Tidsaspekt)

Appendix 2 Interview guide

English version

- ✚ Personal introduction. (Position, years within organization and area, education)
- ✚ How does the new product development process look in your organization? (Amount of steps)
- ✚ Is there a developed product development plan? (Order, how detailed, accessibility)
- ✚ How do you see packaging in relation to the product? (Separate, unified)
- ✚ What role does packaging have in the new product development process?
- ✚ In which stage/stages is packaging regarded? (Integration)
- ✚ In which stage/stages does packaging have a decisive role? (In what way)
- ✚ Are your products/packages standardized or are they adapted to different markets? (Which aspects, material, languages)
- ✚ Do you consider packaging to have increased in importance in the new product development process? (Period of time)

Appendix 3 Booz et al.'s NPD stage definition

Exploration

1. Determine the product fields of primary interest to the company.

- Analyze major company problems.
- Evaluate the company's principal resources.
- Identify external growth opportunities ready for exploitation – expanding markets, technological breakthroughs or rising profit margins.

2. Establish a program for planned idea generation.

- Identify idea-generating groups.
- Give them a clear concept of the company's interest fields.
- Expose creative personnel to idea-generating facts.
- Conduct exploratory technical research.
- Utilize team approach.
- Minimize distractions from current problems.

3. Collect ideas through an organized network.

- Designate an idea collection point.
- Establish comprehensive idea-collection procedures.
- Cover selected outside sources of ideas.
- Solicit ideas actively and directly.
- Consider each idea first on a “can-do” basis.
- Treat the idea man with care.

Screening

1. Expand each idea into a full product concept.

- Translate the idea into business terms.
- Identify the key business implications of the product concept and its development.
- Prepare a written proposal of the product idea.

2. Collect facts and opinions, which are quickly available, bearing on the product idea as a business proposition.

- Select evaluation techniques to fit the specific idea.
- Identify the best sources of facts and qualified opinions.
- Use quick and inexpensive fact-gathering methods.
- Apply strictly the principle of “diminishing returns” to fact-gathering.

3. Appraise each idea for its potential values to the company.

- Estimate the magnitude of the profit opportunity.
- Assess the investment, time and risk requirements.
- Check the idea against other selection criteria.
- Provide for subsequent review of ideas discarded or shelved.

Business Analysis

1. Appoint persons responsible for further study of each idea.

- Select a small product team, representing major departments that would be affected by the product.
- Tailor team size and composition to the nature of the product.
- Select team members in the basis of their self-interest.

2. Determine the desirable market features for the product and its feasibility.

- Determine characteristics of the market and its trends.
- Appraise both competitors and their products – existing and potential.
- Conduct experimental market and technical research, within budget limits established for preliminary investigation.
- Identify “appeal” characteristics that would differentiate and sell the product.
- Establish feasibility of developing and manufacturing a product with these features.

3. Developed specifications and establish a definite program for the product.

- Evaluate various business alternatives to determine desired product specifications.
- Establish a timetable and estimate expenditures to evolve this product through succeeding stages.
- Reduce the proposed idea to a specific business proposition in terms of time, costs, manpower, profits and benefit.
- Get top management approval or revision of the product idea in terms of its specifications and program before authorizing the development stage.

Development

1. Establish development projects for each product.

- Explode the product proposal into as many projects as are required for administrative control.

- Schedule these projects within the approved budget and timetable for the product.
- Maintain the product team for company-wide coordination.
- Pin-point responsibility of all team members and identify them in all reports and records.
- Establish yardsticks for measuring performance and progress.

2. Build product to designated or revised specifications.

- Exhaust available information.
- Maintain security against outside information “leaks”.
- Continue market studies as a basis for enhancing product saleability.
- Hold to agreed specifications or make formal revisions by repeating the specification stage.
- Keep top management informed; report promptly anticipated changes in objectives, schedule or budget.

3. Complete laboratory evaluation and release for testing.

- Complete laboratory tests adequate to determine basic performance against specifications.
- Provide checks and balances through organization and procedure to assure objectivity of product appraisal.
- Apply commercial rather than scientific standards to determine product “release” point.
- Prepare management report summarizing product description and characteristics; report project completion.

Testing

1. Plan commercial experiments necessary to test and verify earlier judgements of the product.

- Expand product team, if required.
- Outline the nature and scope of commercialization phase.
- Identify the major factors that must prove out to support successful commercialization.
- Establish the standards by which product performance and market acceptance will be judged.
- Plan test methods, responsibility, schedule and cost.
- Construct a testing program and recommend it to top management for approval.

2. Conduct in-use, production and market testing.

- Continue laboratory testing.
- Design and test production facilities.
- Submit products to customer use for “abuse” testing.
- Conduct test marketing programs in line with plans for commercialization.
- Survey company, trade and user reactions to the product and its commercialization program.

3. Make final product decision; freeze design.

- Interpret test findings objectively; drop or modify products which fail tests.
- Incorporate test findings in product design and commercialization plans.
- Detail the program for full-scale production and sales with a schedule, budget and manpower.
- Recommend the product and its commercialization program, with full supporting data, to top management for final product decision.

Commercialization

1. Complete final plans for production and marketing.

- Establish pattern for over-all direction and coordination of the product.
- Expand product team to encompass all departments involved.
- Designate individuals responsible for each part of the commercialization program.
- Assure that these individuals work out all program details to fit coordinated plan.

2. Initiate coordinated production and selling programs.

- Brief all participating personnel.
- Maintain established program sequence and schedule.
- Provide feed-back mechanisms for program corrections.

3. Check results. Make necessary improvements in product, manufacturing or sales.

- Make design changes promptly to correct “bugs”.
- Work continuously for cost reduction and quality control.
- Shape the product and its program to meet competitive reaction and changing internal pressures.
- Maintain necessary team members until the product is a “going” commercial success, absorbed by established organizations.