Factors Affecting the Adoption of New Products by the Sales Force

By

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Master of Philosophy

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#### Summary

This thesis examines the factors affecting the adoption of new products by the sales force. As a first step toward gaining greater insight into those factors, this study develops a model for exploring the characteristics that affect new product adoption by the sales force. The model (figure 3.1), describes five categories of variables. These categories are the new product factors, the organisational factors, the sales managers' factors, the sales force factors, and the environmental factors. For example, the model suggests that the sales force's perceptions of the firm's commitment to new products, play a key role in determining whether they will take an active, positive approach to selling the new product. Another suggestion is that a sales person's commitment to a new product depends on his/her career success. The model also suggests that compared to their colleagues with performance orientation, sales people with learning orientation style are more likely to adopt a new product and are less likely to engage in dysfunctional behaviour in the selling process. The researcher conducted personal interviews with sales people in order to validate the conceptual framework of the study. Another purpose of the interviews was to develop scales applicable to the sales force new product adoption context for future empirical research. Indeed, the interviews with sales people revealed the variables, which influence the behaviour of sales people to adopt new products. These variables are presented in chapter 3 of the study.

Key words: Sales representatives; Adoption of innovations; Diffusion.

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4.1 The scale development process

## CHAPTER 1 – RESEARCH TOPIC AND OBJECTIVES

## 1.1 Introduction

The interest of the current research is to examine the adoption of new products by the sales force. To date, little attention has been given to the factors that affect the sales force's adoption of new products. This research is an attempt to fill this gap in the literature.

Nowadays, markets are volatile. Companies strive to have successful product launches. Successful product launches are important for the survival of the companies. Product launch is the last of the Di Benedetto's 12 activities, which comprise the NPD process. Effective product launch is a key driver of top performance and launch is often the single costliest step in new product development (Di Benedetto 1999). Much criticism levelled at industrial goods companies' new product launches has to do with a perceived weakness in promotion (Abratt and Altena-Lombard 1993; Hopkins 1980; Lazo 1965) compared to consumer launches. Industrial new product promotion usually receives poor attention and low expenditures (Abratt and Altena-Lombard 1993; Schmidt 1995), while consumer product launches deluge people with mass advertising messages delivered through multiple channels.

Research suggests that attention to the promotion effort separates good industrial product launches from poorer ones (Cooper and Kleinschmidt 1995). The sales force is strongly related to successful new product launch. Hence, high quality of selling effort is a tactical activity related to successful new product launch (Di Benedetto 1999). It is understood that companies should create the environment in the organisations in which sales people can be motivated to adopt new products. Otherwise, they will not be capable to sell the new products to their customers. Consequently, new product launch will be unsuccessful.

Some firms take sales force commitment to any new product as a given. However, management has no guarantee of sales force commitment to a new product. For various reasons, sales people may fail to sell a new product, or they may engage in dysfunctional behaviour during the selling process – for example, misrepresenting the product's benefits to gain short-term sales. Ensuring sales force adoption of a new product requires careful consideration of the characteristics of the product, the competitive environment, the firm, and the members of the sales force. In other words, managers who hope to engender support for a new product would do well to view the sales person as a first line of customers. Successfully launching a new product to the company's sales force requires the same high levels of creativity, energy, and managerial insight, as does the product's launch into the marketplace. Consequently, managers and researchers need to examine more closely the factors underlying the successful launch of a new product to a firm's sales force.

Chapter 1 presents the research topic and objectives of the study. Then, the definition of the adoption of new products by the sales force is described. After that the chapter gives a justification as to why it is important to look into the factors affecting sales force decision to adopt new products of the firm. Chapter 2 describes the literature review. With the literature search, the researcher developed the conceptual framework of the study, which is presented in Chapter 3. Chapter 4 presents the methodology of the study. The researcher conducted personal interviews with sales people in order to validate the conceptual framework as well as to develop propositions and scales. The discussions from the interviews with sales people are described in Chapter 5. In Chapter 6, the final conclusions, the managerial insights, the limitations and the future research are described.

## 1.2 The research topic and objectives of the study

This research will expand understanding of the adoption of new products by the sales force. The study will be addressing questions such as what enhances adoption of new products by the sales force. A comprehensive conceptual framework will be constructed that will consist of the factors that positively or negatively affect sales force decision to adopt new products. Then, propositions will be developed. Further, the research will develop scales applicable to the sales force new product adoption context.

The objectives of the study are as follows:

- 1) To develop a model of the antecedents to sales force new product adoption,
- 2) To develop propositions about the sales force new product adoption, and
- To adjust scales to the sales force new product adoption context for future empirical research.

While adoption is to be seen as a process with different stages (Rogers 1993), the research will focus on the outcome of the process in the form of an implemented decision to adopt. Adoption can be observed in a clear-cut fashion in contrast with preceding stages of awareness and evaluation. The focus of analysis is the individual sales person. The research is interested on the depth of adoption of new products by the sales force.

#### 1.3 The definition of new product adoption by the sales force

Based on the principal assumption that a sales person is an internal customer of a new product and consistent with the innovation adoption literature (Gatignon and Robertson 1985; 1989; Norton and Bass 1987; Rogers 1995; Weiss and Heide 1993), new product adoption by the sales force is defined as: the interaction between the degree to which they accept and internalise the goals of a new product (i.e., commitment) and the extent to which they work smart and hard (i.e., effort) to achieve these goals. The construct is therefore composed of two dimensions: commitment and effort. A sales person's commitment is an attitude; it includes his/her acceptance of the new product, and his/her emotional commitment to make it a success because such success helps to achieve self-

interest objectives (Hultink and Atuahene-Gima 2000). Effort has been defined as the amount of time, activity or persistence of the sales person in selling the focal new product relative to existing products (Atuahene-Gima, and Micheal 1998).

#### 1.4 Justification of the current review

It is important to look into the factors affecting sales force adoption. The sales force takes on added significance when the firm introduces a new product. This is because to ensure diffusion of the new product among buyers, the firm needs to ensure its diffusion and acceptance among its sales force. In this context, it can be argued that successful customer adoption of a new product depends on the degree of its adoption by the sales force (Anderson and Robertson 1995).

Just as organisations compete for external customers, so they also compete for the best internal customers. Each of an organisation's employees is consider an internal customer. The first step toward customer satisfaction is to get employees to focus inward and satisfy internal customers. The extent to which a firm is successful in satisfying its internal customer will influence its ability to satisfy its external customers. An organisation must sell its goods, services, or ideas to its sales people before these products can be sold to customers. Regardless of the job, every sales person is a link in a chain of internal customers and suppliers that eventually leads to the external customer. If the sales force does not believe in the firm's products, customers could not be expected to believe in and purchase these same products (Skinner 2000).

Several studies have suggested that the sales force is a major contributing factor to new product success. For example, Moriarty and Kosnik (1989) note that sales people are often the most important communication vehicle for launching a new product, particularly in high technology markets. In a more recent study, Di Benedetto (1999) finds that sales force skills and resources, quality of selling effort, and training of the sales force significantly discriminate successful new product launches from unsuccessful ones.

Adoption of new products should lead to higher job satisfaction to the extent that it enhances the sales person's achievement of his/her job-related values such as new skills and challenging work. The theoretical rationale for this linkage is that work itself provides meaning and challenge to the employee. Thus, to the extent that the employee finds the job challenging and performs it willingly, the job itself provides strong intrinsic motivation and satisfaction irrespective of the outcomes (Behrman and Perreault 1984; Atuahene-Gima and Micheal 1998). Unlike existing products, new products have greater potential to offer challenges for the sales person given the potential to call on new and unfamiliar customers, formation of new customer relationships, and learning of new selling skills (Atuahene-Gima 1997).

However, the simple fact is that "a new product is much harder to sell than an existing one" (Brewer 1996). As a result, the sales force may view new products as detrimental to their current activities and incomes because such products could lead management to increase quotas, selling could necessitate calls on new and unfamiliar prospects, and rewards may not adequately compensate for the extra effort devoted to them (Wotruba and Rochford 1993).

Sales people may also resist adding a new product to existing lines because they fear that it may not satisfy customers and thus may jeopardise their relationships with them. They resent the extra effort in promoting the new product, or they simply dislike the disruption of their normal comfortable routine of selling existing products (Anderson and Robertson 1995; Wotruba and Rochford 1995). Therefore, the sales force may even engage in dysfunctional behaviour in selling, such as ignoring the new product or under representing its sales potential in order to stifle its growth (Wotruba and Rochford 1993).

From the aforementioned, it is understood that it is important to identify the factors, which influence adoption of new products by the sales force.

#### 1.5 Conclusion

The current chapter described the definition of sales force new product adoption concept. This definition aided the researcher to identify the factors affecting sales force commitment and effort. The chapter also presented the objectives of the study. The development of the conceptual framework (figure 3.1) depicting the factors affecting sales force commitment and effort represents the first objective of the study. With this model propositions will be developed as well as scales applicable to the sales force new product adoption context. The propositions and the scale development represent the second and third objectives of the study respectively.

In addition, the chapter justified the aim of the current research, which is to examine the adoption of new products by the sales force. For the reasons stated in the section of justification of the current chapter, it was made clear that sales people must adopt new products. Adoption of new products by the sales force leads to higher sales force job satisfaction. In addition when sales people adopt new products, they are capable of persuading customers to adopt these new products. Thus, firms need to make managerial and organisational changes upon launching a new product to facilitate the commitment of the sales force. Further, sales managers need to motivate sales people. In turn, these sales people will energise their efforts to sell the new products of the firms. It is illogical to expect a sales person who identifies with and internalises the objectives of a new product to engage in actions that hurt its success.

Sales force adoption and consequently effort to sell new products lead to successful new product launches. It has been suggested that the selling effort is an important factor, which discriminates successful new product launches from unsuccessful ones (Di Benedetto 1999).

The subsequent chapter examines the general literature of the adoption of innovations, the literature of the adoption of new products by the sales force, the sales management literature and the marketing orientation literature. From the literature review, the researcher has identified the gap, which will fill in the current research. This will lead to the contributions to knowledge of this research. The contributions are presented at the end of the next chapter.

# CHAPTER 2 – LITERATURE REVIEW

#### 2.1 Introduction

The researcher will obtain information from the general literature on the adoption of innovations by final consumers and organisations. However, in order to create a comprehensive conceptual model as to the factors affecting new product sales force adoption, the research will review other literatures as well. These literatures are the sales force new product adoption literature, the sales management literature and the marketing orientation literature. The aforementioned literatures are presented in the current chapter.

This chapter also describes the gap that was identified in the literatures. Furthermore, the current chapter presents the contributions to knowledge, which are the development of the conceptual framework of the study, the scale development and the integration of the literature of the adoption of new products by the sales force with the general literature of the adoption of innovations and the sales management literature.

From the literatures, the current study has identified variables affecting sales force decision to adopt new products. It has also developed its conceptual framework (figure 3.1), which is presented in detail in chapter 3 of the study. The conceptual framework of the current study is different compared to conceptual frameworks of past researches because:

- It investigates the new product factors (Rogers 1995). It has developed a category
  of variables of new products investigating the influence of these variables on the
  decision of sales people to adopt new products,
- 2. It is more comprehensive, and
- 3. It examines variables affecting the decision of sales people to adopt new industrial products.

The current review examined the new product factors by Rogers (1995). In none of the studies of the adoption of new products by the sales force have authors incorporated in their conceptual framework variables related to the innovations attributes. The current study used the relative advantage, the compatibility and the complexity of new products as factors affecting the decision of sales people to adopt new products.

Past research has not built a comprehensive model with factors affecting sales force new product adoption. In one study the model was confusing (Atuahene-Gima 1997). It had many categories and a lot of variables. In addition, it depicted variables affecting sales force adoption of either new products or services. Furthermore, its model has not been tested to examine whether the variables are the ones to be considered. The current study has developed a conceptual framework (figure 3.1), which consists of factors influencing sales people to adopt new industrial products only. The conceptual framework of the current review was tested by interviewing sales people, who stated the variables that affect their decision to adopt new products. In a different study its model described factors affecting sales force adoption of new services. Specifically authors looked into the factors affecting sales force adoption of new house brands (Anderson and Robertson 1995). Whereas, as mentioned before, the current study developed variables that affected sales force adoption of new products and specifically new industrial products.

## 2.2 Justification for considering the literatures described in the following sections

The current study will review the general literature of the adoption of innovations by consumers and/or organisations, the literature of the new product sales force adoption, the sales management literature and the marketing orientation literature. This section will give a justification for using the previously mentioned literatures.

The general literature of the adoption of innovations is investigated in the current study because it will help the researcher to understand what affects adoption in other contexts. By doing so, this study will then examine whether the factors found in previous research could be applied to the context of new product sales force adoption. The sales force new product adoption literature is considered because the study is looking into the factors affecting sales force behaviour to adopt new products. So, it was helpful to look into previous research on the new product adoption by the sales force concept. By this, the current study could identify any gaps and improve past research on the issue of the adoption of new products by the sales force.

Sales managers are important in influencing sales force behaviour. Thus, information from the sales management literature was needed in order to identify the factors affecting sales people behaviour to adopt new products. The marketing literature describes the concept of marketing and stresses the importance of marketing in today's volatile markets. When a firm is marketing oriented sales people are ready to encountered difficulties coming from the external environment. In addition, as known from the marketing textbooks, promotion is a marketing mix variable. Sales people are in the front line, promoting and selling the products of the company. Thus, it was important to consider the marketing literature in this study.

# 2.3 General literature on the adoption of innovations

## 2.3.1 The new product factors influencing adoption decision

The perceived attributes of an innovation are one important explanation of the rate of adoption of an innovation. From 49 to 87 percent of the variance in rate of adoption is explained by five attributes (Rogers 1995).

These attributes are as follows:

- The degree to which an innovation is perceived as being better than the idea supersedes (*relative advantage*),
- The degree to which an innovation is perceived as being consistent with existing values, beliefs, experience, and needs (*compatibility*),

- The degree to which an innovation is perceived as being difficult to understand and use (*complexity*),
- The degree to which an innovation may be experimented with on a limited basis (trialability),
- 5) The degree to which the results of an innovation are visible (observability).

<u>The Relative Advantage</u>: Relative advantage of a new product is the degree to which an innovation is perceived as being better than the idea it supersedes. The degree of relative advantage is often expressed as economic profitability, social prestige, or other benefits. The nature of the innovation determines what specific type of relative advantage (such as economic, social, and the like) is important to adopters, although the characteristics of the potential adopters also affect which sub-dimensions of relative advantage are most important. The sub-dimensions of relative advantage include: 1) The degree of economic profitability, 2) Low initial cost, 3) A decrease in discomfort, 4) Social prestige, 5) A savings in time and effort, and 6) The immediacy of the reward (Rogers 1995).

Diffusion scholars have found relative advantage to be one of the best predictors of an innovation's rate of adoption. Relative advantage indicates the benefits and the costs resulting from adoption of an innovation. Past investigations of the perceived attributes of innovations almost universally report a positive relationship between relative advantage and rate of adoption (Rogers 1995).

<u>The Compatibility:</u> Compatibility is the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters. An idea that is more compatible is less uncertain to the potential adopter, and fits more closely with the individual's life situation. Such compatibility helps the individual give meaning to the new idea so that it is regarded as familiar. An innovation can be compatible or incompatible 1) with socio-cultural values and beliefs, 2) with previously introduced ideas, or 3) with client needs for the innovation. An innovation's

incompatibility with cultural values can block its adoption. In addition, compatibility of an innovation with a preceding idea can either speed up or retard its rate of adoption. An innovation may be compatible not only with deeply embedded cultural values but also with previously adopted ideas. Old ideas are the main mental tools that individuals utilise to assess new ideas. One cannot deal with an innovation except on the basis of the familiar, with what is known. Previous practice provides a familiar standard against which an innovation can be interpreted, thus decreasing uncertainty. Furthermore, another dimension of compatibility is the degree to which an innovation is perceived as meeting the needs of the client system. When felt needs are met, a faster rate of adoption usually occurs (Rogers 1995).

As mentioned before, one dimension of the compatibility of an innovation is the degree to which it meets a felt need. Change agents (definition of change agent in section 2.5) seek to determine the needs of their clients, and then to recommend innovations that fulfil these needs. Discovering felt needs is not a simple matter; change agents must have a high degree of empathy and rapport with their clients in order to assess their needs accurately. Informal probing in interpersonal contacts with individual clients, client advisory committees to change agencies, and surveys of clients are sometimes used to determine needs for innovations. Potential adopters may not recognise that they have a need for an innovation until they are aware of the new idea or of its consequences. In these cases, change agents may seek to generate needs among their clients but this must be done carefully or else the felt needs upon which a diffusion campaign is based may be only a reflection of the change agent's needs, rather than those of clients (Rogers 1995).

The Compatibility of an innovation, as perceived by members of a social system, is positively related to its rate of adoption (Rogers 1995).

<u>The Complexity</u>: Complexity is the degree to which an innovation is perceived as relatively difficult to understand and use. Any new idea may be classified on the complexity-simplicity continuum. Some innovations are clear in their meaning to potential adopters whereas others are not. Although the research evidence is not

conclusive, complexity of an innovation, as perceived by members of a social system, is negatively related to its rate of adoption (Rogers 1995).

<u>The Trialability</u>: Trialability is the degree to which an innovation may be experimented with on a limited basis. New ideas that can be tried on the instalment plan are generally adopted more rapidly than innovations that are not divisible. Some innovations are more difficult to divide for trial than are others. The personal trying-out of an innovation is a way to give meaning to an innovation, to find out how it works under one's own conditions. This trial is a means to dispel uncertainty about the new idea (Rogers 1995).

Relatively earlier adopters of an innovation perceive trialability as more important than do later adopters. More innovative individuals have no precedent to follow when they adopt, whereas later adopters are surrounded by peers who have already adopted the innovation. These peers act as a kind of vicarious trial for later adopters, and hence their own personal trial of the new idea is less crucial for them. So, laggards move from initial trial to full-scale use more rapidly than do innovators and early adopters (Gross 1942; Ryan 1948). The trialability of an innovation, as perceived by members of a social system, is positively related to its rate of adoption (Rogers 1995).

<u>The Observability</u>: Observability is the degree to which the results of an innovation are visible to others. The results of some ideas are easily observed and communicated to others, whereas some innovations are difficult to observe or to describe to others. Observability of an innovation, as perceived by members of a social system, is positively related to its rate of adoption (Rogers 1995).

# 2.3.2 Deficiencies of the Diffusion of Innovations Theory

This section talks about the deficiencies of the diffusion theory by Rogers (1995). The five new product factors that affect consumers and/or organisations to adopt new products are stated. Researchers have argued that the new product attributes should not be the only variables influencing diffusion and adoption of innovations. As seen in figure

3.1, the current study has incorporated the category with the new product factors by Rogers (1995). However, this was not the only category. In order to examine the variables influencing sales force adoption decision, the current review has incorporated other categories of variables too, (Figure 3.1). It would be deficient if only the new product factors were included in the conceptual framework. As is written below authors have stressed the deficiency of the diffusion of innovations theory.

In diffusion of innovations theory, the theory posits that diffusion depends on five general attributes: relative advantage, compatibility, complexity, observability, and trialability. Nevertheless, researchers on complex information systems have criticised the "deficiencies" of the diffusion of innovations theory. For example, Brancheau and Wetherbe (1990) noted that it was clear that diffusion of innovations theory did not provide a complete explanation for technology diffusion. In a review of information technology innovation studies, Fichman (1992) argued that classical diffusion variables by themselves are unlikely to be strong predictors of complex information technology adoption and diffusion, suggesting that additional factors should be added. In studies of adoption, Prescott, and Conger (1995) concluded that diffusion of innovations theory factors are not as appropriate for inter-organisational information technologies as they are for others. They suggested that traditional diffusion of innovation findings must be modified.

The modification will give a complete insight into the factors affecting innovations adoption. Indeed, many authors have added more variables that could influence diffusion and adoption of innovations by consumers and/or organisations (Kim and Srivastava 1998; Frambach 1993; Frambach, et. al., 2002; Verhoef and Langerak 2001). The researches of the aforementioned authors are described in the following sections.

## 2.4 The Adoption of innovations in the non-sales force context

Gatignon and Robertson (1985) have studied the role of marketing variables in diffusion research. Authors have examined the organisational adoption of innovations (Frambach

1993; Frambach, et. al., 2002). The study by Scott and Bruce (1994), have examined the determinants of innovative behaviour in the workplace. Kim and Srivastava (1998) have studied the intra-organisational diffusion of technological innovations. Recently, authors have examined the adoption of information technology by organisations (Chau and Tam 2000). Other authors have studied the adoption of new product development tools by industrial firms (Nijssen and Frambach 2000). Verhoef and Langerak (2001) have examined the possible determinants of consumers' adoption of electronic grocery shopping in the Netherlands.

# 2.4.1 Justification for examining the literature in the non-sales force adoption context

The sections below present the literature on innovations adoption in the non-sales force adoption context. Specifically, the literature investigates variables affecting consumers and/or organisations adopt innovations. The reason the current review considered these literatures was to examine the factors that influenced adoption decision of other units of adoption. The purpose was to take some variables and incorporate them in the conceptual framework of the study (Figure 3.1). The aim was to examine whether these variables could as well affect sales people to adopt new products.

# 2.4.2 Marketing variables in diffusion research

Modellers of the diffusion process have included marketing-mix variables – namely, advertising, price, and personal selling (Bass 1980; Horsky and Simon 1983; Lilien, Rao, and Kalish 1981; Simon and Sebastian 1982) – thus demonstrating the impact of these variables on new product diffusion. The larger the marketing effort – i.e., greater advertising, lower price, greater personal communication, greater sampling or demonstration level, or the more widespread the distribution level – the faster the rate of adoption.

Gatignon and Robertson (1985) proposed that marketing expenditures affected the rate of diffusion and the maximum penetration level. In addition, these diffusion-modelling studies show that marketing efforts accumulate in effectiveness over time. Further, the greater the sensitivity of the marketing programme to the changing characteristics of segments at different stages of the diffusion process, the faster the rate of diffusion and the greater the penetration level (Gatignon and Robertson 1985). At a more strategic level, the greater the degree of compatibility between the market segment targeted and the innovation's characteristics, the faster the rate of adoption. Actually, the rate of diffusion varies by market segment (Robertson and Wind 1980). The strategy of the firm marketing the innovation has a major impact on the speed of diffusion. As the number of segments targeted and the degree of fit between the segments' needs and the marketing policies increase, the diffusion rate increases and the product life cycle is shortened (Gatignon and Robertson 1985).

#### 2.4.3 Organisational adoption of innovations

Frambach (1993), in his study of organisational adoption and diffusion of innovations concluded that the relative advantage, compatibility, trialability, and observability of a technological innovation, as perceived by potential adopters are positively related to its rate of adoption. In addition, the author concluded that the complexity of an innovation is negatively related to the rate of adoption of the innovation. Apart from the aforementioned factors, the studies by Frambach 1993 and Frambach, et. al., 2002, have investigated other factors that affect organisational adoption. These factors are described below.

<u>Uncertainty</u>: The innovation characteristics put forward by Rogers (1983, 1995), should be supplemented with considerations of uncertainty (Nooteboom 1989; Gatignon and Robertson 1985). Uncertainty is in several major ways involved in the adoption process of an innovation. First, the potential adopter is uncertain as to whether advantages of the innovation (e.g. concerning cost saving or quality improvement), as promised by the supplier, will be realistic. The extent of the relative advantage of the innovation is not known for sure before adoption has taken place. Second, the potential adopter faces uncertainty regarding the implementation of the innovation in its organisation. In order to bring the performance of the innovation up to the required or expected level, additional efforts, unknown prior to adoption of the innovation, may have to be made. Therefore, the uncertainty surrounding an innovation might make a potential adopter to postpone the decision either to adopt or reject the innovation (Frambach 1993).

<u>Expectations of Fast Technologies</u>: Expectations of fast technologies development among potential adopters of a certain technological innovation may retard its adoption. Potential adopters may be uncertain as to the emergence of technology standards and the length of the technology life cycle (Gatignon and Robertson 1991). It being the case, such expectations form an inhibition of the process of adoption and diffusion of the innovation, because the potential adopter may consider the postponement of adoption of the innovation to be the most profitable strategy (Nooteboom 1989; Butler 1988). Thus, Frambach (1993) concluded that the expectations of fast technological development among potential adopters were negatively related to the rate of adoption of the innovation.

<u>Competitive Effects</u>: Robertson and Gatignon (1986), proposed an extended behavioural paradigm of technology diffusion among organisations in order to incorporate competitive effects on the diffusion process in the extant paradigm outlined by Rogers (1983). The propositions made by Robertson and Gatignon (1986) are mainly based on the literature of industrial organisation and include competitive effects on technology diffusion of both the supply-side and the adopter-side. However, empirical research does not always give clear support to the proposed relations. In most cases, unambiguous support is only found concerning the relation between the competitiveness of a market and the rate of diffusion of an innovation in that market (Baldwin and Scott 1987; Kamien and Schwartz 1982). A high level of competition among firms in a certain industry may enlarge the pressure on an individual firm to adopt a certain technological innovation. In case this firm would not do so, it may find that the adoption of that specific

innovation by other firms may create a competitive disadvantage for it (Frambach, et. al., 2002).

In highly competitive markets, innovation adoption may be necessary to maintain one's market position (Robertson and Gatignon 1986). Non-adoption of an innovation that is adopted by others in such an environment may result in competitive disadvantage. This depends on the strategic importance of the innovation and its potential implications for the effectiveness and efficiency of the firm's activities. In the literature, different relations between industry competitiveness or concentration and adoption have been found. In the industrial organisation literature, a positive impact has been found for both high levels of industry concentration and low levels (Kamien and Schwartz 1982; Baldwin and Scott 1987). In the marketing literature, Gatignon and Robertson (1989) found that higher levels of competition stimulate innovation adoption.

#### 2.4.4 Climate and innovative behaviour in the workplace

There has been an empirical study of climate's effects on individual innovative behaviour by Amabile and Gryskiewicz (1989). Another study was by Scott and Bruce (1994), who found that the degree to which organisation members perceived an organisational climate as supportive of innovation positively related to individual innovative behaviour. At the individual level, climate is a cognitive interpretation of an organisational situation that has been labelled "psychological climate" (James, and Ashe 1990). Proponents of psychological climate theory posit that individuals respond primarily to cognitive representations of environments "rather than to the environments per se" (James and Sells 1981).

Climate represents signals individuals receive concerning organisational expectations for behaviour and potential outcomes of behaviour. Individuals use this information to formulate expectancies and instrumentalities (James, Hartman, Stebbins, and Jones 1977). People also respond to these expectations by regulating their own behaviour in order to realise positive self-evaluative consequences, such as self-satisfaction and self-

pride (Bandura 1988). Schneider (1975) suggested that there are many types of climates, and Schneider and Reichers (1983) wrote that "to speak of organisational climate per se, without attaching a referent, is meaningless".

Not all of the dimensions contained within omnibus climate measures (e.g., Jones and James 1979; Pritchard and Karasick 1973) are relevant to the criteria of interest in a specific research study. For example, in the often-cited Abbey and Dickson (1983) study of innovative performance among R&D units, only two of the ten generic work-climate dimensions examined, performance-reward dependency and flexibility, were consistently correlated with measures of R&D innovation. Abbey and Dickson (1983) concluded that the climate of innovative R&D units is characterised by rewards given in recognition of excellent performance and by organisational willingness to experiment with innovative ideas.

Others have noted that innovative organisations are characterised by an orientation toward creativity and innovative change, support for their members in functioning independently in the pursuit of new ideas (Kanter 1983; Siegel and Kaemmerer 1978), and a tolerance for diversity among their members (Siegel and Kaemmerer 1978). Finally, adequate supplies of such resources as equipment, facilities, and time are critical to innovation (Amabile 1988; Angle 1989; Taylor 1963), and the supply of such resources is another manifestation of the organisational support for innovation.

#### 2.4.5 Intra-organisational diffusion

Based on research on the relationship between innovation characteristics and the adoption of innovations (Rogers 1995), Kim and Srivastava (1998), examined the influence of product (innovation) characteristics on intra-organisational diffusion. Based on extensive reviews on the innovation characteristics by Rogers (1995) and Zaltman, Duncan, and Holbek (1973), Kim and Srivastava (1998), posited that three dimensions of innovation – compatibility, complexity, and observability – have an impact on intra-organisational diffusion. Compatibility was expected to have a positive impact on intra-organisational

diffusion, because it reflects the "goodness-of-fit" between a new technology and the needs of its potential users. Observability, the degree to which the results of an innovation are visible to others, is expected to increase the opportunity for organisation members to learn and appreciate a newly adopted technology. This expedites intraorganisational diffusion. On the other hand, technological complexity is supposed to have a negative impact on intra-organisational diffusion, because it may discourage the potential users from trying a new technology.

## 2.4.6 Adoption of Information Technology

There have been studies in the literature on the adoption of information technology. Many have based their research models on Rogers (1983; 1995) Diffusion of Innovations Theory (DOI). Example works include Hoffer and Alexander (1992) Moore and Benbasat (1991) and Ramamurthy and Premkumar (1995). Zmud (1984) suggested using the concepts borrowed from the engineering/R&D management literature to explain behaviour in adoption of new technology.

The concepts used to explain behaviour in adoption of new technology are the following:

- 1) The "technology-push" (TP), and
- 2) The "need-pull" (NP).

The concepts of technology-push and need-pull were introduced by Schon (1967) as the underlying motivations and driving forces behind the innovation of a new technology (Chidamber and Kon 1994). The Technology-Push and the Need-Pull schools of thought propose and support two different arguments. The technology-push (TP) school suggests that innovation is driven by science, and thus drives technology and application: scientific discovery triggers the sequence of events, which end in diffusion or application of the discovery (Munro and Noori 1988). The need-pull (NP) proponents argue that user needs are the key drivers of adoption.

In an early study, Meyers and Marquis (1969) examined innovation within organisations using ex post analyses. They reported that more than 70% of the innovations could be classified as need-pull, and suggested that organisations should pay more attention to needs for innovation than in maintaining technical competence. Langrish (1972) examined the issue again and concluded that both, the technology-push and need-pull models existed, but that the "need-pull" model was generally more prevalent. Zmud (1984) also noted that "need-pull" innovations have been found to be characterised by higher probabilities of commercial success than have "technology-push" innovations." Some researchers proposed that a successful innovation would occur when a need and the means to resolve it simultaneously emerge (Fischer 1980).

Munro and Noori (1988) in their study on commitment to new manufacturing technology included both, the technology-push and the need-pull factors. Their findings suggested that the integration of both generally contributed to more innovativeness. Thus, adoption of a new technology may be induced by the recognition of a promising new technology, a performance gap or the motivating forces of both.

## 2.4.6.1 Factors affecting the adoption of open systems

The "technology-push" (TP), factors affecting the organisational adoption of open systems are the following:

- 1) The extent of perception of benefits to be gained by adopting open systems, and
- 2) The costs.

(Chau and Tam 2000).

Chau and Tam (2000) studied the organisational adoption of open systems and suggested that the extent of perception of benefits to be gained by adopting open systems would be positively related to the decision to adopt. Organisations might be attracted or "pushed" to adopt open systems, because of perceived benefits of adopting that technology. Adopting open systems can provide an organisation with many benefits. The benefits may include:

- 1) Providing a flexible environment unconstrained by proprietary systems,
- 2) Offering more choices for hardware,
- 3) Promoting flexibility and integration,
- 4) Utilising Information Technology resources more effectively, and
- 5) Allowing transparent data access.

However, the study did not support the claims made. Maybe many organisations have had many bad experiences in adopting new information technology, especially for organisational innovation (Chau and Tam 2000). A suggestion, which had been supported, was that the extent of migration costs associated with adopting open systems would be negatively related to the decision for adoption. Higher cost of an innovation is negatively associated with its adoption (Premkumar and Potter 1995). In open systems, the cost of adoption may be associated with the technical or organisational uncertainties involved.

Uncertainty, and thus costs, might disincline an organisation to adopt a new technology. This "negative" technology-push factor was found to be significant in the open-systems adoption decisions. The novelty of the open-systems technology may lead to uncertainty, and thus costs, as to the amount of technical know-how required and the corresponding technological changes needed. The adoption decision also demands replacing current old technologies, in-house information technology expertise and administrative processes. This suggests that in deciding whether or not to adopt open systems, organisations seem to pay more attention to the potential problems than to the potential benefits. In other words, most organisations are conservative (Chau and Tam 2000).

<u>Technical Uncertainty</u>: Technical uncertainty may arise from complexity and/or from the need for knowledge needed to implement the technology. Adoption is not a single event, bur rather a process of knowledge accumulation. Hage and Aiken (1970) reported that knowledge depth, measured as the extent of professional training affects innovation adoption. Cohen and Levinthal (1990) proposed a concept of absorptive capacity, defined as an organisation's ability to recognise the value of new information, assimilate it, and apply it to productive ends. They argued that it was the level of skills and knowledge gained over the course of the adopter's cumulative history of innovative activities and was a key determinant of an organisation's capacity for innovation. Attewell (1992) also emphasised the role of know-how in the adoption of innovation.

**Organisational Uncertainty:** Organisational uncertainty may result from two sources: the difficulty of estimating the administrative and operating costs of adoption and the infeasibility of replacing the current old technologies, in-house information technology expertise and administrative processes. Open systems require discontinuous (Ettlie, Bridges, and O'Keefe 1984; Tushman and Nadler 1978) and competence-destroying changes (Tushman and Anderson 1986). Adoption of such technology may cause the technologies, applications, expertise, and administrative rules and regulations to become obsolete. Iivari (1993) in his study noted that in addition to learning, adopting new complex technology might require unlearning of old practices.

The "need-pull" factors affecting the organisational adoption of open systems are the following:

- 1) The performance gap, and
- The market uncertainty. (Chau and Tam 2000).

In organisational computing, a performance gap may result from a low satisfaction level with existing computer systems, unacceptable price/performance ratio of the existing systems or inability to serve the organisation's new needs. Thus, Chau and Tam (2000) suggested that the level of satisfaction with the existing computing systems would be negatively related to the decision for adoption. The previous assertion had been supported. Based on need-pull concepts, an organisation would not consider adopting a

new technology unless a need, such as a performance gap, was recognised. In the context of adopting open-systems, the satisfaction level with existing computing systems should be closely related to the need for improvement and, thus, the adoption decision. Whenever the current systems satisfied the needs of the organisation, the propensity to change should be lower (Chau and Tam 2000).

*Market Uncertainty:* Another thing that has been suggested in the study by Chau and Tam (2000) was that the level of market uncertainty would be positively related to the decision for adoption. The motivation to adopt new technology may be pressure from the external market (Robertson and Gatignon 1986; and Tornatzky and Fleischer 1990). Mansfield et. al. (1977) provided evidence that intense market competition appeared to stimulate the rapid diffusion of an innovation. Pfeffer and Leblebici (1977) also argued that it was when the organisation faced a complex and rapidly changing environment that information technology was both, necessary and justified. Market and environmental factors, such as the degree of competition, the stability of demands for products, and the degree of customer loyalty, cannot be controlled by the management of the organisation, but can affect the way the business is conducted.

From an information technology viewpoint, as companies are facing an uncertain market environment, the competitive atmosphere demands more responsiveness and flexibility in information technology support. Nevertheless, the aforementioned suggestion in the study of Chau and Tam (2000) had not been supported. The pressure coming from the external-market environment had not been found to be a significant factor encouraging organisations to adopt open systems.

#### 2.4.7 Adoption of NPD tools by industrial firms

Nijssen and Frambach (2000) have examined the adoption of NPD tools by industrial firms. Tools and techniques represent an important way to improve NPD output. They can be used to improve management's decision quality at different stages of the NPD process (Schelker 1976), and thus to improve the overall success rate of new products

(Mahajan and Wind 1992; Greenwald and Ottenfeld 1989). Such improvement is important as failure rates remain high, and the costs of failure are substantial (Song, Souder, and Dyer 1997; Cooper 1994).

In his review of the literature of organisational innovation adoption, Rogers (1995) identified three sets of variables that influence a firm's propensity to adopt an innovation. The three sets of variables that influence a firm's propensity to adopt an innovation are the following:

- 1) Characteristics of the organisation's management (e.g., top management support and commitment),
- 2) Internal characteristics of the organisation (e.g., the firm size, the firm's organisational structure, the interpersonal networks), and
- 3) External characteristics of the organisation (e.g., the highly innovative and competitive environment).

However, prior use of related innovation may be argued to stimulate adoption also (Gauvin and Sinha 1993).

**Top Management Involvement:** Nijssen and Frambach (2000) suggested that the level of top management involvement with the New Product Development process had a positive effect on the level of adoption of New Product Development tools and techniques. In general, the importance of (top) management support and commitment for successfully implementing new ideas and activities within the New Product Development process has been well documented (Cooper and Kleinschmidt 1995). The extent to which management supports innovation has often been found to be one of the most important internal determinants of innovation (De Brentani and Ragot 1996). This also extends to the supporting role that management can play in the adoption of an innovation. The findings showed that the influence of top management involvement on adopting NPD tools and techniques was marginally significant, providing some support of the aforementioned suggestion.
*Firm's Size:* Another hypothesis was related to the firm size and the authors suggested that firm size had a positive effect on the level of adoption of New Product Development tools and techniques. This hypothesis had not been supported. The finding regarding size was consistent with Rogers (1995) argument that size is a surrogate for other variables in explaining innovation adoption. When considered in combination with other internal organisational factors, the effect of firm size on innovation adoption generally becomes less significant (Frambach, Barkema, Nooteboom, and Wedel 1998). However, the relationship may be more complex. Large and small companies both play an important role in developing and commercialising new technology (Schumpeter 1947). Therefore, both types may also benefit from the adoption of NPD tools and techniques, eliminating the effect of organisational size as an explaining variable for tool adoption.

*Firm's Organisational Structure:* A firm's organisational structure may either encourage or discourage the acceptance of new ideas and products (Zaltman, Duncan, and Holbek 1973). On one hand, companies with a highly structured organisation may be less likely to come into contact with NPD tools and techniques. The existence of a fixed format and routine may prevent change and thus the adoption of new things. On the other hand, however, well-structured firms will be better equipped to implement NPD tools (Zaltman, Duncan and Holbek 1973).

In organising for NPD the latter affect may be more important as firms with a higher level of formalisation of their NPD processes have been shown to benefit more from adopting and using NPD tools (Nijssen and Lieshout 1995). Linking the level of NPDformalisation to the level of task specification within the NPD process (Nijssen and Lieshout 1995) a positive effect of the number of NPD stages on the adoption of NPD tools and techniques is anticipated. Thus, Nijssen and Frambach (2000) found that the number of stages within the NPD process had positively been related to the level of adoption of NPD tools and techniques.

*Interpersonal Networks:* The degree to which the units in an organisation are linked by interpersonal networks (i.e., the degree of interconnectedness) has been found to be

positively related to innovation adoption (Rogers 1995; Zaltman, Duncan and Holbek 1973). With regard to organisations this relates to the internal communication process or the level of communication and interaction between departments. However, since involvement of different organisational departments has been found to be a major factor of success of new product development (Cooper 1994), this affect should also be considered while addressing interconnectedness in the NPD context.

Associating interconnectedness with the number of departments involved and the level of communication between them, a positive influence of both the number of departments participating in the NPD process and their level of interdepartmental communication on tool adoption can be anticipated. When one member of the decision-making unit is pro-adoption he/she will have more easy access and is more likely to be able to persuade the other unit members under conditions of high interconnectedness. Further, the more departments involved, the more likely that tool-awareness exists. Thus, Nijssen and Frambach (2000) found that the number of departments involved in the company's New Product Development had a positive effect on the level of adoption of New Product of communication between departments had a positive effect on the level of adoption of New Product Development tools and techniques.

<u>Competitive Environment</u>: Next to the internal characteristics of a firm, external characteristics of organisations have been found to influence innovation adoption behaviour (Rogers 1995). A highly innovative and competitive environment can, for instance, accelerate the adoption of certain innovations. Innovations that fit a company's environment and thus help an organisation stay contingent with its environment have the best chance of being adopted (Meyer and Goes 1988). The contingency issue is directly related to firm strategy (Johnson and Scholes 1997). Consequently, one can argue that an industrial firm's strategy will influence the probability of innovation adoption (Chisnall 1989).

With regard to the adoption of NPD tools the NPD strategy of a firm will be of particular importance. If a company is heavily involved in turning out new products, it will benefit more from using NPD tools than when it only occasionally has new introductions. Thus, it had been suggested and had been supported that a NPD strategy focusing more on turning out many new products had a positive effect on the level of adoption of NPD tools and techniques.

**Prior Use of Related Innovation:** Gauvin and Sinha (1993) argued that a major determinant of innovation adoption is a company's current use of products and ideas similar or comparable to the innovation, which is up for adoption. Prior adoption of concepts related to an innovation will especially increase a company's receptiveness. The more receptive the organisation the more likely it will adopt the innovation (Baldwin and Scott 1987). The idea of "usage breeds usage" may also apply to NPD tools and techniques. Mahajan and Wind (1992) observed that most users of NPD tools are satisfied with their performance. Firms that are satisfied with their NPD tools are most likely to also try other, new tools and techniques. They will be more open to adoption than firms with no such positive experience. Thus, it had been suggested that former NPD tools and techniques, which had been supported.

# 2.4.8 Adoption of electronic grocery shopping by consumers

In their study Verhoef and Langerak (2001) have examined the factors influencing consumers adopting electronic grocery shopping. They suggested that the intentions of consumers to adopt electronic grocery shopping were influenced by their perception of the characteristics of electronic grocery shopping. Therefore, the aforementioned authors suggested that consumers who perceived electronic grocery shopping to be relative advantageous (or superior), compatible and easy to understand, to be more willing to adopt electronic grocery shopping. They found a positive relationship between the perceived relative advantage and the intention of consumers to adopt electronic grocery shopping. Further, they found a positive relationship between the perceived compatibility

and the intention of consumers to adopt electronic grocery shopping. In addition, they found a negative relationship between the perceived complexity and the intention to adopt electronic grocery shopping.

## 2.5 The role of the change agent

A Change Agent is an individual who influences client's innovation-decisions in a direction deemed desirable by a change agency. A change agent usually seeks to secure the adoption of new ideas, but he/she may also attempt to slow the diffusion process and prevent the adoption of certain innovations with undesirable effects. Change agents are often professionals with a university degree in a technical field.

This professional training, and the social status that goes with it, usually means that change agents are heterophilous from their typical clients, thus posing problems for effective communication about the innovations that they are promoting. Many change agencies employ change agent aides. An aide is a less than fully professional change agent who intensively contacts clients to influence their innovation-decisions. Aides are usually homophilous with the average client, and thus provide one means of bridging the heterophily gap frequently found between professional change agents and their client audience. Homophily is the degree to which pairs of individuals who interact are similar in certain attributes, and heterophily is the degree to which they differ (Rogers 1995).

Many different occupations fit the definition of change agent: Teachers, consultants, public health workers, agricultural extension agents, development workers and sales people. All of these change agents provide a communication link between a resource system of some kind and a client system. One of the main roles of a change agent is to facilitate the flow of innovations from a change agency to an audience of clients. For this type of communication to be effective, the innovations must be selected to match client's needs. For the linkage to be effective, feedback from the client system must flow through the change agent to the change agency so that it appropriately adjusts its programmes to fit the changing needs to clients (Rogers 1995).

# 2.5.1 Sales people as change agents

Rogers (1995) examined the influence of product factors on the decision of consumers to adopt new products. The current review examined these new product factors affecting the decision of sales people to adopt new products. The study also, looked into the sales force factors, as well as other factors shown in Figure 3.1. It was important to examine the sales force variables because this study is interested in the sales force new product adoption. When sales people adopt new products, they will then be confident to persuade consumers to adopt new products as well. Adoption by sales people can lead to the adoption of these new products by customers. Customers are influenced by the effort of sales force that sells new products to them. Hence, sales people can be viewed as change agents, who are in the middle between the firms and its customers.

By their selling effort, sales people persuade customers to adopt and consequently buy the new products of the firm. The amount of effort spent in communication activities with clients is a factor in change agent success. Change agent success in securing the adoption of innovations by clients is positively related to the extent of change agent effort in contacting clients. The degree of success of change agents is usually measured in terms of the rate of adoption of innovations by members of the client system (Rogers 1995).

#### 2.6 Literature of the adoption of new products by the sales force

Although the previously mentioned literature on the adoption of innovations is valuable, it is deficient in that it has focused almost entirely on organisations as well as buyers with little attention to other market participants such as the sales force. Yet the sales force is perhaps the most important communication vehicle for launching a new product, particularly in high tech markets (Samli, Wirth, and Wills Jr 1994). Research interest into the adoption of new products by the sales force has increased in the recent years (Gatignon and Robertson 1989; Anderson and Robertson 1995; Atuahene-Gima 1997; Hultink and Atuahene-Gima 2000).

Gatignon and Robertson (1989) investigated the adoption of laptop computers among sales people in business firms at the organisational level. They especially focused on the influence of the competitive environment on innovation adoption and found this to be significant. Anderson and Robertson (1995) examined the factors that led to new house brands adoption by the sales force. It had its limitations though, because it was a single industry focus combined with the single-firm source of the archival data needed for the adoption model. The authors themselves were questioning the generalizability of the results and they suggested that it would be interesting to assess the extent to which their framework applied to sales people contemplating any new product or process.

Three sales person-specific background factors, among other factors, were examined in the study of Anderson and Robertson (1995). Each of the sales person factor is element of the pattern a sales person's career has assumed, that might be particularly relevant to how the individual reacted to house brands. The factors are the career success of sales people (Cron 1984, McNeilly and Russ 1992), the sales force experience (Cron 1984, O'Hara, Boles, and Johnston 1991, Johnston et. al., 1990, Behrman and Perreault 1984), and the prior mobility of the sales force (Mobley et. al., 1979, Ganesan, Weitz, and John 1993, Anderson and Oliver 1987). In addition, the aforementioned study examined the sales person's perception on firm's commitment to house brands. Furthermore, the study examined the impact of training on the decision of sales people to adopt house brands.

Atuahene-Gima (1997) has investigated the possible factors affecting sales force new product adoption. He has constructed a conceptual framework, and developed propositions. Some variables that were incorporated in the conceptual framework of the aforementioned author are the feedback, training, sales management control systems, sales force learning orientation and experience. Hultink and Atuahene-Gima (2000) have investigated the effect of sales force adoption on new product selling performance.

# 2.7 The Sales Management Literature

## 2.7.1 The product life cycle concept

The product life cycle concept suggests that changes should occur in sales management strategy and policy when a new product is added to the sales force's ongoing product line. For instance, sales training might be needed to focus on the characteristics (features and benefits) of the new product, to identify the best prospects for the new product as well as their needs and buying behaviour, and how the product stacks up competitively against any rivals in the marketplace. Some authors offered specific ideas on how sales strategies and tactics would vary over the product life cycle. With new products, for example, sales managers may need to establish performance standards other than traditional sales quotas, such as number of demonstrations and new sales calls. Sales managers may also need to become more involved in the selling process, such as making more joint sales calls, forming special sales teams, and holding special sales orientation meetings to develop new product knowledge (Rink and Dodge 1980; Rink and Swan 1987; Wasson 1978).

# 2.7.1.1 <u>The sales management strategy at the introduction of new</u> products

Wotruba and Rochford (1995) have investigated the nature of the changes made in sales strategy and tactics as a result of introducing a new product. The authors found that firms did make changes in their sales management practices and that nearly every sales management mix option used prior to the new product addition was modified in a significant proportion of responding firms. The greatest proportion of change occurred with regard to quotas, and the fewest changes were made in sales organisation structure as a result of adding a new product. Overall, about one third of all sales management mix options were changed in some manner as a result of introducing a new product, varying from changes in 44 percent of quota types used to changes in 22 percent of sales organisation structures employed (Wotruba and Rochford 1995).

Descriptions of controllable Sales Management Strategy variables are available in the Sales Management Textbooks (Wotruba and Simpson 1992), articles (Dubinsky and Hansen 1981), models (Henry 1975), and research studies (Dubinsky and Barry 1982). Dozens of such variables can be identified, but in a preliminary study regarding Sales Management Strategy and New Product Introductions, Wotruba and Rochford (1993) distilled the Sales Management Mix options into six categories of component variables:

The categories are as follows:

- 1) Organisation structure, size, staffing, and deployment,
- 2) Quotas and goals,
- 3) Training,
- 4) Compensation and incentives,
- 5) Supervision, motivation, and performance evaluation, and
- 6) Sales support.

(Wotruba and Rochford 1996).

Some writers have offered opinions on which sales management mix variables and options pertain especially to new products. For example, Canning and Berry (1982) suggest that, in the introductory stage of a product's life cycle, sales force compensation should concentrate on straight commission. Cothran (1990) focuses on sales force training, incorporating technical factors about the product as well as an understanding of customer needs including overcoming customer resistance to something new. Konrath (1992) discussed how sales force behaviour could affect a new product's success or failure, with special emphasis on deployment of selling effort to the most promising prospects and having the proper information and marketing support. Rink and Dodge (1980) cover many of these same topics, and additionally discuss the importance of identifying performance standards, devising motivational programmes, and maintaining close supervision to gain feedback on customer reactions and selling problems that emerge during the product introduction period.

Some studies have examined selected combinations of sales organisation characteristics (Cravens et. al., 1992) as well as the impact of some sales management variables on other sales management variables (Avlonitis and Boyle 1989; Ryans and Weinberg 1981) or on sales person performance (Yammarino and Dubinsky 1990). Wotruba and Rochford (1995) offered empirical data on this link, based on a conceptual foundation drawn from new product process models, the product life cycle concept, and the sales management mix.

About 20% of the firms reported making a change in their organisational structure as a result of introducing a new product. About 35% of firms made changes in their training programmes as a result of launching a new product. About 37% of firms made changes in their quotas as a result of new product introduction. Overall, 26.8% of the firms reported making some change in their compensation structure as a result of the new product. The percentage of firms that made some change in supervision and motivation as a result of adding a new product was 29.5%. About 36.6% of firms reported making a change in sales support as a result of introducing a new product (Wotruba and Rochford 1995).

A recent study expanded on previous investigations by examining whether sales management strategy changes are conditioned by the type of newness of the new product to the market and to the firm. The study found that firms do not make the most adjustments for products with the greatest degree of market newness, except in the sales management strategy categories of compensation and supervision (Micheal, Rochford, and Wotruba 2003). Newness of new products to the market classifies innovations based on the degree to which they affect customer's established usage patterns, habits, and experiences (Rogers 1995).

In other strategies such as training, quotas and goals, and sales support, changes were greatest in incidence when the new product was new to the firm but not new to the market. Results suggested that there maybe greater incentive for a new-to-the-firm product to make changes in sales strategy (Micheal, Rochford, and Wotruba 2003). Newness of new products to the firm defines the degree to which an innovation is

perceived as consistent with the present systems, resources, and capabilities of the firm (Rogers 1995).

## 2.7.2 Sales force performance

Performance is defined as the sales person's perception of his/her effectiveness in generating sales for the new product, exceeding sales targets and number of sales calls made relative to other sales people (Atuahene-Gima and Micheal 1998).

In their study, Churchill, et. al., (1985) proposed that a sales person's job performance is a function of three basic factors:

- 1. His/her level of motivation,
- 2. His/her sales aptitude or ability, and
- 3. His/her perceptions about how his/her role should be performed.

The authors argued that the relationships among the above three factors are likely to be multiplicative. If a sales person is deficient in any one factor, performance is likely to be low. For example, if a sales person has ability and accurately perceives how the job should be performed but lacks motivation, he/she is likely to perform at a low level. In addition, the model of the aforementioned authors indicated that each of the three determinants of performance is influenced by a variety of antecedent variables. These variables include personal characteristics of the sales person (e.g., intelligence, personality, education, and experience), characteristics of the company (e.g., type of product, compensation practices, supervisory style, training programmes), and factors in the broader economic environment (e.g., demand conditions in the industry, availability of raw materials, unemployment rate).

Authors have examined sales force performance and satisfaction as outcomes of some variables (Behrman and Perreault 1984). More specifically, the authors have proposed an integrative model of the antecedents and consequences of sales force role ambiguity and

role conflict. In their study, the authors argued that sales force experience reduces role ambiguity and this in term will lead to higher job performance. Other studies have examined the influence of feedback received from supervisors on sales people's performance and satisfaction (Jaworski and Kohli 1991; Singh 1993).

## 2.7.3 Sales force motivation and effort

Conceptually, effort has often been confounded with, or considered equivalent to motivation. Naylor, Pritchard, and Ilgen (1980) define effort as "the amount of energy spent on an act per unit of time." Ilgen and Klein (1988) reiterate this definition. The definition, however, ignores the perseverance aspect of work-related behaviour that logically constitutes part of the effort construct. Both the duration of time spent working and the intensity of work activities represent important aspects of effort (Campbell and Pritchard 1976).

Motivation has been defined as the amount of effort expended in work-related tasks (cf. Campbell and Pritchard 1976). However, clearer and more useful definitions have discriminated between motivation and effort, identifying the former as an antecedent of the latter (e.g., Naylor, Pritchard, and Ilgen, 1980; Walker, Churchill, and Ford 1977). Motivation and effort are treated as conceptually distinct, with effort representing the force, energy, or activity by which work is accomplished, whereas motivation represents the psychological state or predisposition of the individual with respect to choices involving the direction, intensity, and persistence of behaviour (e.g., Ilgen and Klein 1988; Naylor, Pritchard, and Ilgen 1980).

#### 2.7.3.1 The motivational process

In sales force management, the motivational process usually is described by the following circle: the motivational level of sales people influences their effort or behaviour, which leads to some level of achievement on one or more dimensions of performance (outcome). The sales person's performance is rewarded with one or more rewards (e.g.,

compensation, recognition). The rewards lead to motivation, which again influence behaviour, and so forth (Krafft 1999). This motivational process is based on Vroom's (1964), work and also is known as expectancy theory.

## 2.7.3.1.1 The Expectancy Theory

<u>The General Tenets of Expectancy Theory</u>: According to the general tenets of expectancy theory, a sales person's motivation to expend effort will depend upon cognitive evaluations of:

- 1) Expectancy: A subjective belief (probability) that a given amount of effort will lead to successful performance of a given act,
- Instrumentality: The perceived probability that the act will lead to a given outcome, and
- 3) Valence: Values associated with each possible outcome of the act.

Sales force motivation is an essential aspect of sales force management and there are indications in the literature that the expectancy model may be an effective framework for building a sound, actionable model of sales force motivation (Bagozzi 1978; Walker, Churchill, and Ford 1977). The expectancy theory framework assumes that sales people utilise only controlled (or rational) thought processes when deciding whether to work, how hard to work, and how long to work (Gray and Wert-Gray 1999). In 1964, Vroom developed the first application of expectancy theory to organisational behaviour (Vroom 1964).

Vroom's formulation is one of a class of similar theories that are based on the central idea that "the strength of a tendency to act in a certain way depends on the strength of an expectancy that the act will be followed by a given consequence (or outcome), and on the value or attractiveness of that consequence (or outcome) to the actor" (Lawler 1973). Vroom's original theory was concerned primarily with predicting the amount of effort a worker would expend on various tasks associated with his/her job – his/her motivation to

work. Several theorists subsequently expanded the original theory in an attempt to predict not only the worker's motivation level, but also the level of job performance that would result (Galbraith and Cummings 1967; Porter and Lawler 1968).

Many studies have used and adapted the expectancy framework in the sales management literature (Walker, Churchill and Ford 1977; Tyagi 1985; Kohli 1985; Teas and McElroy 1986; Cron, Dubinsky, and Michaels 1988; Brown and Peterson 1993; Gray and Wert-Gray 1999). Walker, et. al., (1977) proposed a model of sales force motivation based on expectancy theory (Vroom 1964) – EVI (expectancy, valence, instrumentality), influenced by role perceptions, compensation, intrinsic and extrinsic job satisfaction, previous performance, and previous performance outcomes. Tyagi (1985) examined how key job dimensions and leadership behaviour contributed to sales person's intrinsic and extrinsic motivation to perform.

Kohli (1985) suggested that specific self-esteem should be included in the Walker, et. al., (1977) model. Teas and McElroy (1986), integrated expectancy (Vroom 1964) and attribution (Kelley 1967) theories. Cron, et. al., (1988) examined the relationship between career stages and motivation. An assessment was made of how expectancy, valence, and instrumentality differ across four career stages of individuals in organisations. Brown and Peterson (1993), suggested that performance and job attitude relationships as proposed by Walker, et. al., (1977) are indirect and mediated by feelings of success. Gray and Wert-Gray (1999) integrated expectancy theory (Vroom 1964) and behavioural decision theory (Kahneman and Tversky 1972; 1979).

#### 2.7.3.2 Extrinsic and Intrinsic Motivation

Staw (1977) contends that intrinsic motivation refers to the pleasure or value of an activity itself, while extrinsic motivation, emphasises the value an individual places on the results of an action and the individual's assessment of the probability of realising the results. In the sales occupation context, the effects of intrinsic and extrinsic motivation on performance and effort have been inconsistent. Oliver (1974) found certain extrinsic

outcomes predicted performance, while intrinsic outcomes did not. Conversely, Tyagi (1985) found that intrinsic motivation produced a greater impact on performance than did extrinsic motivation.

In their study, Ingram, Lee and Skinner (1989) have found that sales force effort is positively related to their levels of extrinsic motivation, while their hypothesis that sales peoples' effort is positively related to their levels of intrinsic motivation has not been supported. The findings relative to rewards parallel other studies of reward preferences of sales people, which have found pay and promotion to be the most preferred rewards, well ahead of intrinsic rewards (Ingram and Bellenger 1983; Ford, Churchill, and Walker, 1985).

## 2.7.3.3 Intrinsic and Extrinsic Satisfaction

The rewards received by the sales person have a major impact on his/her satisfaction with his/her work environment. Satisfaction is divided into two broad dimensions, (1) intrinsic and (2) extrinsic. Intrinsic satisfaction is related to the internally mediated rewards the sales person obtains from his/her job – satisfaction with the work itself and with the opportunities for personal growth and accomplishment. Extrinsic satisfaction is related to the externally mediated rewards bestowed upon the sales person – satisfaction with pay, company policies and support, supervision, fellow workers, chances for promotion, and customers (Walker, Churchill, and Ford 1977).

A long tradition of theory and research has argued that work itself provides meaning and satisfaction irrespective of performance outcomes. White (1959) argues that people possess an innate need for "effectance" (i.e., an "inborn need to deal effectively with the environment). According to White (1959) "satisfaction has to be seen as lying in a considerable series of transactions, in a trend of behaviour rather than a goal that is achieved." Deci (1975; Deci and Ryan 1985) builds on White's idea of effectance in elaborating intrinsic motivation theory. This theory (or, more accurately, meta-theory) posits that people possess an innate need to be competent, effective, and self-determining. Like White's theory of effectance, intrinsic motivation theory holds that work motivation

is inborn and work itself is fulfilling to the extent that the worker undertakes it willingly and finds it to be an optimal challenge (Deci and Ryan 1985). These perspectives suggest that effort affects job satisfaction in ways that do not depend on narrowly defined performance outcomes. In their study Brown and Peterson (1994) found that effort had a significant direct effect on job satisfaction irrespective of performance outcomes.

# 2.7.4 The importance of management control systems in the current study

A sales control system refers to a system that allows managers to align the behaviour and actions of sales people with the objectives of the organisation (Bello and Gilliland 1997; Jaworski 1988; Jaworki and MacInnis 1989; Ouchi 1979). Specifically, Jaworki (1988) defines control systems as "management initiated mechanisms that influence the probability that employees or groups will behave in ways that support stated marketing objectives". Processes of sales management control span a continuum from a focus by management mainly or wholly on outcomes, to a primary focus on sales person behaviour (Anderson and Oliver, 1987).

In the sections below, the management control systems are extensively examined. The reason for this is that sales managers and the control systems they use are important in influencing sales people decision to adopt new products. Sales manager's objective in devising a sales control system for a new product launch is to regulate sales force behaviour to ensure that the new product launch objectives are met (Jaworski 1988). Although anecdotal evidence suggests that sales force control may be detrimental to successful selling of new products (Rawaswami 1996), previous empirical evidence maintains that one of the most important elements in the successful introduction of new products is how sales managers control the behaviour of the sales force (Wotruba and Rochford 1995). Indeed, emerging evidence suggests that control systems are not stable and enduring but do change to reflect the specific requirements of a new product (Wotruba and Rochford 1995). Since the objective of the current study is the adoption of new products by the sales force, sales managers would try to use the management control

systems as effectively as possible in order to persuade sales people to adopt new products.

## 2.7.4.1 The behaviour and the outcome-based control systems

There are two contrary sales management philosophies in the literature that might influence the sales force behaviour:

- 1) The Behaviour-Based control system, and
- 2) The Outcome-Based control system.

<u>The Behaviour-Based Control System:</u> The behaviour-based control system reflects the extent to which sales managers emphasise procedures and activities in monitoring, evaluating and rewarding the sales person (Anderson and Oliver 1987; Bello and Gilliland 1997; Ouchi 1979). Sales managers, for example, monitor the extent to which sales people follow established procedures pertaining to the new product, and evaluate the procedures that sales people use to accomplish the task of selling the new product. Also, pay increases and other tangible rewards often depend on how well sales procedures pertaining to the new product are followed. Hence, a behaviour-based control system regulates the means of achieving desired performance results. Typically, it is expected, behaviour-based control involves a high proportion of fixed salary for sales people (Anderson and Oliver 1987).

<u>The Outcome-Based Control System</u>: The outcome-based control refers to the extent to which a sales manager places emphasis on results when monitoring, evaluating and rewarding the sales person. Performance evaluations of sales people on the new product place primary weight on results, and pay increases and other tangible rewards depend on the degree to which sales people have achieved the goals set for the new product. Outcome control is therefore used to influence directly the performance objectives set for the sales person. There is high proportion of incentive payment under outcome-based control system (Anderson and Oliver 1987).

It would be unwise to assume any universal superiority of one control system approach over the other. It is likely that either control approach can be effective when matched to the selling situation that is faced and it is the contingencies associated with the appropriateness of different control philosophies on which management attention should focus (Challagalla and Shervani 1996).

# 2.7.4.1.1 <u>Differences between behaviour and outcome-based</u> control system

Anderson and Oliver (1987) and Cravens et. al., (1993) highlight differences between behaviour-based control systems and outcome-based control systems. While somewhat stereotypical in nature, it is suggested here that behaviour-based control is likely to be associated with high sales person capabilities in:

- 1) Product knowledge,
- 2) Company knowledge,
- 3) Integrated sales expertise, and
- 4) Professional competence.

Outcome-based control will be associated with lower capabilities in the areas mentioned above.

Behaviour-based control is also expected to be associated with positive attitudes in terms of:

- 1) Commitment to the sales organisation,
- 2) Acceptance of direction and control,
- 3) More team cooperation, and
- 4) Enthusiasm for performance reviews, but lower propensity to take risks.

Outcome-based control is expected to be associated with less positive attitudes and a greater propensity to take risks (Anderson and Oliver 1987; Cravens et. al., 1993).

Motivation is expected to be higher with behaviour-based control, in terms of intrinsic and peer recognition motivational forces and motivation to serve the sales organisation. Behaviour-based control is expected to be associated with selling strategies involving more call planning, support and advisory activities, open selling techniques, and more customer orientation, but correspondingly fewer sales calls and a higher proportion of time spent in non-selling activities. Outcome-based control is expected to be associated with selling strategies involving less planning, support and advice, closed selling techniques and lower customer orientation, but with more sales calls and a greater proportion of time spent in selling activities (Piercy, Cravens, and Morgan 1998).

# 2.7.4.1.2 <u>Advantages and disadvantages of behaviour control</u> system

The cost of behaviour control system is the perception of personal surveillance (Bello and Gilliland 1997; Ouchi 1979; Ramaswami 1996). In addition, it can stifle the sales person's discretion and flexibility. However, a behaviour-based control system reduces performance risk and ensures some predictability and stability in rewards offered to sales people (Ramaswami 1996). The amount of effort and resources that go into planning and implementing a behaviour-based control system for the new product provides indications to the sales force of management commitment and support for the new product (Atuahene-Gima 1997).

# 2.7.4.1.3 <u>Advantages and disadvantages of outcome control</u> <u>system</u>

The cost of outcome control system is that it may lead to myopic pursuit of specified outcomes to the neglect of important but unspecified outcomes. It may also transfer excessive performance risk to sales people, particularly where sales performance is influenced by environmental conditions beyond their control, and to perceptions of lack of supervisory attention (Ramaswami 1996). However, outcome control also empowers sales people by giving them discretion to make day-to-day decisions about job related

activities. Hence, it provides incentive for the employee to assume responsibility for results, and to adapt behaviour to take advantage of emerging opportunities (Jaworski 1988; Ouchi 1979).

# 2.7.4.1.4 Empirical findings of behaviour and outcome control systems

There is small but growing body of empirical support indicating that the greater the extent of behaviour-based sales management control (monitoring, directing, evaluating, and rewarding), the higher the effectiveness of the sales organisation. For example, Cravens et. al., (1993) found significant indirect effects of behaviour-based management control from a sample of 144 chief sales executives in the USA. Piercy et al., (1997), using a sample of UK field unit sales managers found significant differences between high and low sales unit effectiveness groups and the extent of monitoring, directing, evaluating, and rewarding activities of the managers. They also found that in the higher effectiveness sales units, sales managers were involved to a greater extent in coaching and communicating with sales people. Moreover, Corcoran et. al., (1995), in studies conducted in several countries, reported positive links between sales managers' communications and coaching activities and sales organisation effectiveness. These activities are consistent with behaviour-based management control.

Behaviour-based control would lead to higher level of performance in achieving sales organisation objectives and serving customer needs, while outcome-based control will lead to higher performance in achieving individual sales and other output results. The greater the extent of behaviour-based sales management control, the higher the sales force outcome performance, which are results attributable to the sales person, such as the traditional measures of sales, market share, new accounts, as well as other results achieved (Piercy, Cravens, and Morgan 1998).

In a recent study Hultink and Atuahene-Gima (2000) suggested that the positive effect of sales force adoption of a new product on selling performance would be weaker when

behaviour-based control was higher. The rationale was that sales people required flexibility and discretion; traits of outcome-based control system, in the selling process. However, the statement had not been supported showing that sales people do appreciate the support from their sales managers.

Hultink and Atuahene-Gima (2000), expected outcome-based control to strengthen the adoption-selling performance relationship. The reason for this was that outcome-based control establishes a direct link between performance in selling the new product and the potential rewards. Sales people know that exceeding performance objectives results in rewards whereas failure results in sanctions. With these advantages coupled with the flexibility and discretion allowed to them in the selling process, sales people see outcome-based control as providing further motivation to perform well. It allows sales people who have adopted a new product greater autonomy to achieve their objectives.

## 2.7.5 The goal orientation

Dweck and her colleagues (Dweck 1989; Dweck and Leggett 1988; Heyman and Dweck 1992; Licht and Dweck 1984) have proposed that the goals pursued by individuals create the framework for their interpretation and reaction to events or outcomes. Dweck and her colleagues have identified two classes or types of goals.

The goals are as follows:

- 1) Performance goals, and
- 2) Learning goals.

When a performance goal is adopted, individuals strive either to demonstrate, and thereby gain favourable judgements of, their competence via task performance or to avoid negative judgements of their competence. Alternatively, when a task is approached from a learning goal orientation, individuals strive to understand something new or to increase their level of competence in a given activity (Dweck 1989; Dweck and Leggett 1988; and Heyman and Dweck 1992).

The two goal orientations foster different response patterns. A performance goal orientation creates a vulnerability to a maladaptive "helpless" response pattern (Diener and Dweck 1978; 1980; Nicholls 1984), which is characterised by avoidance of challenges and a deterioration of performance in the face of obstacles. Performance-oriented individuals faced with failure attribute it to low ability, demonstrate negative affect, and may seek to withdraw from the activity entirely. Conversely, a learning goal orientation promotes "mastery-oriented" responses (Diener and Dweck 1978; 1980; Nicholls 1984). The mastery-oriented response pattern involves seeking challenging tasks and maintaining effective striving under difficult conditions. When these individuals are faced with failure, they behave as though they have received useful feedback. They respond with "solution-oriented self-instructions, as well as sustained or increased positive affect and sustained or improved performance" (Elliot and Dweck 1988).

## 2.7.5.1 The individual's implicit theory of ability

Those who favour an entity theory of ability believe that intelligence is a global trait that is fixed or uncontrollable. This perspective orients individuals toward performance goals because they believe that their competence cannot be increased. Alternatively, incrementalists believe that ability is comprised of a series of skills and dimensions that can be expanded through effort and experience. They typically adopt learning goals that emphasise increasing competence (Bempechat et. al., 1991; Dweck and Leggett 1988).

# 2.7.5.2 <u>The link between sales people's goal orientations and</u> <u>performance</u>

A learning-orientation is expected to lead to performance for several reasons. Learningoriented sales people are expected to use self-regulation strategies (e.g., solution-oriented self instruction, self-checks) that help develop the sales person's selling skills and knowledge, which thereby leads to superior performance (cf. VandeWalle and Cummings 1997). Furthermore, there is empirical evidence that learning orientation encourages sales people to work hard, presumably because they enjoy their work, which thus leads to higher performance (Sujan, Weitz and Kumar 1994). In addition, sales people with a learning orientation tend to adapt their responses to selling situations and therefore perform at higher level (Sujan, Weitz and Kumar 1994).

Research by Kohli, Shervani, and Challagalla (1998) found that learning orientation was unrelated to performance. The aforementioned authors assumed that the reason this result occurred was that a learning orientation does not influence performance in the short term. Rather, it influences long-term performance by enabling sales people to develop skills and abilities that are beneficial over a period of time that is longer than a three-to-twelve month period typically used when assessing industrial sales people's performance. In addition, it is possible that some strategies of learning-oriented sales people even might hinder short-term performance.

For example, because sales people with a learning orientation enjoy pursuing challenging goals and tasks, they might call on accounts that are more difficult to penetrate. Spending time with such accounts might be detrimental to short-term performance but could pay off in the long run. Furthermore, the linkage between learning orientation and performance might depend on other factors as well. For example, a learning orientation primarily captures a person's desire to learn, but says nothing about his/her ability to learn or the opportunities available for learning. Therefore, a sales person might have the motivation to learn but lack the ability and/or the opportunities to learn. In such instances, learning orientation is unlikely to translate into performance (Kohli, Shervani, and Challagalla 1998).

Sales people with a performance orientation are focused on performing well as a means to obtaining rewards and/or recognition from others. They frequently compare their performance with supervisory expectations and the performance of their peers. Their desire for recognition from others is expected to encourage them to exert greater effort on their jobs, which thus leads to higher performance. Empirical evidence reported by Sujan, Weitz, and Kumar (1994) supports this argument. Furthermore, performance-oriented sales people even might select their tasks purposively, so as to maximise their likely success level. Kohli, Shervani, and Challagalla (1998) found that performance orientation was related positively to sales people's performance.

## 2.8 The Marketing orientation literature

## 2.8.1 Marketing orientation as attitude

In an effort to provide a definition of marketing orientation, Drucker (1954) stated, "marketing is not a specific company activity. On the contrary, it involves the entire organisation. It is the organisation viewed from the customers' point of view." Similarly, Felton (1959) has also described marketing orientation with emphasis on the attitudinal qualities of the concept. He regarded it as "a way of thinking in doing business that is based on the integration and co-ordination of all marketing activities which, in turn, will integrate with the rest activities of the company in an effort to maximise long-term profitability."

At the 1990 Marketing Science Institute conference on "Organising to Become Market Driven" Swartz (1990) treated the organisation of marketing and the concept of marketing orientation differently. While marketing organisation was used to describe the functional department of the company that executes marketing related activities (e.g., pricing, distribution, promotion, etc.), the concept of marketing was associated with a certain way of thinking concerning the company's priorities and goals. It is also the opinion of Deshpande and Webster (1989) who assign a philosophical/cultural quality to marketing orientation. In fact, when they attempted to investigate the innovativeness of Japanese companies they used the degree of marketing orientation to explain the companies' propensity to innovate (Deshpande, Farley, and Webster 1992). In doing so, they employed the term "customer orientation" to describe a specific set of beliefs that puts the customers' interests first and ahead of those of all other stakeholders (e.g., owners, managers, employess, etc.). In their view, this set of beliefs should be considered as part of a broader, and more fundamental, corporate culture.

Baker (1989) approaches the concept of marketing orientation in a similar way. More specifically, although he avoids a specific definition of marketing or marketing orientation, he explicitly suggests that for a company to develop marketing orientation, "massive changes in the way it thinks about business" are required. In an indirect way, he specifies these required changes by emphasising how easy it is to understand the philosophy of marketing. In his view, producers need to start conscientious efforts to identify and specify customers' needs and then mobilise their companies' assets to serve these needs in a framework of mutually satisfying exchanges. Houston (1986) and Dixon (1990) have put forward similar views, all treating marketing orientation as mainly a company philosophy. Clearly, if the adoption of marketing orientation requires changes of the company's prevailing set of beliefs and attitudes, then marketing orientation represent a specific culture.

Hooley, Lynch, and Shepherd (1990), on the basis of the attitudes toward marketing held by a broad sample of marketing directors in Britain, developed a classification scheme in which they classified companies into four groups, each exhibiting a different level of marketing orientation adoption. More specifically, they distinguished the "Marketing Philosophers," as the companies that have fully embraced marketing orientation as a company-wide philosophy; the "Departmental Marketers," as the companies that perceive that the concept of marketing orientation is confined in what the marketing and/or the sales departments do; the "Sales Supporters" as companies that conceive the marketing concept as a tool for supporting the sales effort and "Unsurers" as the companies that are still confused about the meaning of the marketing concept.

# 2.8.2 Marketing orientation as behaviour

Another approach, which views marketing orientation as being primarily specific company behaviour, has also been developed. Trout and Ries (1985), for example,

perceive marketing orientation as an effort to compile market intelligence upon which the effort to build a competitive advantage is based. In fact, they take it a step further and suggest that customer orientation, although important, it is not as crucial as competitor orientation as the latter will enable the company to identify the weaknesses of its competitors and strike them back where they are weaker.

A behavioural approach in explaining marketing orientation from a different viewpoint is also adopted by Elliot (1987). He suggests that the concept of marketing orientation and the philosophy to set a priority to satisfy customers' needs, although important, is insufficient and requires revising. He proposes that designing strategies aimed at achieving customer satisfaction should be considered as part of the marketing orientation concept. This strategic-behavioural approach in explaining marketing orientation has found acceptance and support by Bonoma (1985; 1992) as well. In fact, attempts have been made to explain that marketing orientation requires the development of marketing skills (with particular emphasis in designing and implementing marketing strategies) (Canning 1989) and changes in the organisational structure and marketing systems of the company (Payne 1988).

Within this framework of behavioural-strategical approach to marketing orientation, Piercy (1992) suggests that marketing orientation is comprised of three elements:

- Strategies, concerning the critical decision of market definition and market segmentation as well as the identification of potential bases for the differentiation of the company's products against competitive offerings,
- 2) Plans, concerning the development of marketing mix policies, and
- Information, concerning the entire market, which is used for strategy design, planning, and control.

With this definition of marketing orientation, Piercy (1992) clearly establishes a behavioural approach in defining the concept marketing orientation. Finally, similar to Piercy's perception of marketing orientation, is the work of Kohli and Jaworski (1990; 1992). They also view marketing orientation as behaviour and they explain it on the basis of three pillars:

- 1) Market intelligence collection (to understand the market),
- Intelligence dissemination throughout the company (to familiarise it with the market), and
- 3) Responsiveness to the intelligence (through the strategies and plans that the company designs and implements).

However, since the end goal of marketing orientation is increased adaptability of the company to its market, it is intuitively attractive to assume that in order to achieve maximum adaptability both company attitude and behaviour should be adjusted. Hence, marketing orientation is about developing both a set of attitudes and a set of practices that aim to maximise the company's adaptability to the market (Avlonitis and Gounaris 1997).

Authors have examined the relationship between marketing orientation and company performance. They made a comparative study of industrial versus consumer goods companies (Avlonitis and Gounaris 1997). Others have examined the marketing orientation levels of small to medium-sized firms (Becherer, Halstead, and Haynes 2003).

# 2.9 Discussion of the relevance of the areas covered to the overall focus of the research

As described in the literature above, many factors have been found to affect customers and/or organisations to adopt new products or innovations in general. Among these factors are the new product factors, which are the relative advantage, the compatibility, the complexity, the observability and the trialability of new products (Rogers 1995). The current review adopted the previously mentioned factors in order to test whether these factors could be applied in the context of sales people adopting new products. The factors were incorporated in the category of new product factors that affect sales people decision to adopt new products. This category is depicted in figure 3.2. The current study proposed for example that relative advantage, compatibility and complexity of new products have all positive effect on the decision of sales people to adopt new products.

However, apart from the new product factors, the current study looked into other categories of variables as well. These categories are the ones consisting of the organisational factors, the sales managers' factors, the sales force characteristics and the environmental factors. The current study developed the previously mentioned categories with its variables in its conceptual framework (Figure 3.1). It examined the influence of these variables on the decision of sales people to adopt new products.

The category of the organisational factors includes the commitment of the firm to innovations and the marketing orientation of the firm. This category is described in figure 3.3 of the study. The commitment of the firm to innovations is found in the general literature of the adoption of innovations. It has been found to have effects on individual innovative behaviour (Amabile and Gryskiewicz 1989; Scott and Bruce 1994). Also, authors examined the aforementioned variable to test the impact on sales people's decision to adopt house brands (Anderson and Robertson 1995). In addition, it has been proposed as a variable that might affect sales people to adopt new products or services (Atuahene-Gima 1997). The former research was too broad (Atuahene-Gima 1997). Its conceptual framework could be applied to any context either new products or services (Atuahene-Gima 1997).

The current review examined again the variable of the commitment of the firm to innovations as a factor affecting sales people to adopt new products. Its conceptual framework was developed to examine the factors influencing sales people to adopt new industrial products only. Marketing variables have been found to affect consumers to adopt new products (Gatignon and Robertson 1985). The current research included the marketing orientation of the firm to examine whether it affected the decision of sales people also to adopt new products.

The category, which includes the sales managers' factors, was obtained mostly from the sales management literature. This category is depicted in figure 3.4. The variable of training has been investigated in the sales management literature, as a sales management strategy variable when the firm introduced new products (Wotruba and Rochford 1995). It had also been examined as a factor affecting sales force performance (Churchill, et. al., 1985). Feedback has been examined in the sales management literature as a factor affecting sales force performance (Churchill, et. al., 1985). Feedback has been examined in the sales management literature as a factor affecting sales force performance and satisfaction (Jaworski and Kohli 1991; Singh 1993). Sales management control systems have been examined to test their influence on the effectiveness of sales organisations (Cravens, et. al., 1993; Piercy, et. al., 1997; Corcoran, et. al., 1995).

The three variables of the sales manager's category have been examined in the context of sales people adopting innovations, too (Atuahene-Gima 1997). Training has been examined to affect sales force decision to adopt new house brands (Anderson and Robertson 1995). However, the studies by the aforementioned authors as previously mentioned were deficient. The current research included again the variables of training, feedback and sales management control systems in its conceptual framework to examine their influence on the decision of sales people to adopt new products.

In the category of sales force factors the variables considered to influence sales force decision to adopt new products are the career success, the experience and the learning orientation of sales people. This category is depicted in figure 3.5. The aforementioned variables were examined in the context of sales management. Sales force career success, has been examined utilising the expectancy theory. Specifically, research assessed how the three tenets of expectancy theory; expectancy, valence, and instrumentality differed

across four career stages of individuals in organisations (Cron, et. al., 1988). Sales force experience has been examined to affect sales force performance (Churchill, et. al., 1985). Sales force learning orientation has been examined to lead to superior sales force performance (cf. VandeWalle and Cummings 1997; Sujan, Weitz and Kumar 1994).

Authors have examined career success, experience and learning orientation of sales people in the context of the adoption of new products and/or services by the sales force, too (Atuahene-Gima 1997). However, the research by the aforementioned author did not distinguish products and services. The theoretical framework of the aforementioned author could be applied to the adoption of any new products or services by the sales force. Career success and experience of sales people have been found to affect sales force decision to adopt new house brands (Anderson and Robertson 1995). The current study incorporated in its conceptual framework (figure 3.1) the three variables of the category of sales force characteristics (figure 3.5) in order to examine sales force adoption of new industrial products, only.

Finally, in the category of environmental factors the variables considered to influence sales force decision to adopt new products are the competitive intensity and the market volatility. This category is described in figure 3.6. Competitive intensity has been examined to test its influence on the adoption of laptop computers of sales people at the organisational level (Gatignon and Robertson 1989). Also, competitive intensity has been examined as a factor affecting adoption of innovations by organisations (Frambach, et. al., 2002; Johnson and Scholes 1997). The current study examined the effect of competitive intensity on the decision of sales people to adopt new products at the individual level.

The variable of market volatility has been examined to affect the adoption of new technologies by organisations (Chau and Tam 2000; Tornatzky and Fleischer 1990; Robertson and Gatignon 1986). The aforementioned variable has not been examined in past researches in the context of new product sales people adoption. The current study examined the effect of market volatility on sales force new product adoption decision.

# 2.9.1 <u>How the current study differs from earlier studies and how it improves</u> on their work

The conceptual framework developed in the study by Atuahene-Gima (1997) was broad enough to be applied to either products or services. In contrast, the conceptual framework of the current study was developed to examine the factors, which have an effect on the decision of sales people to adopt new products, only. In addition, the study by Atuahene-Gima (1997) was complicated in that it incorporated many categories of variables. The current review developed its conceptual framework with fewer variables. Thus, the model of this study is simpler but very comprehensive.

Furthermore, the study by Atuahene-Gima (1997) did not examine the new products/services attributes (Rogers 1995) as the current study did. The investigation of these new product attributes improved the work of the past research because as was seen in the interviews with sales people the relative advantage, the compatibility, and the complexity of new products had all positive effect on the decision of sales people to adopt new products. Thus, it was important to incorporate them in the conceptual framework of the study.

Atuahene-Gima (1997) has not tested his conceptual framework as the researcher of the current study has done. This study employed personal interviews with sales people in order to validate the conceptual framework and develop scale/items. Thus, the qualitative research that was carried out by the current study improved the work by Atuahene-Gima (1997). A clearer understanding was gained as to the factors affecting sales people decision to adopt new products. The interviews helped the researcher to find out the importance of each variable as well as the importance of each category of variables on the decision of sales people when adopting new products. In addition, sales people talked about the positive or negative impact of each variable on their decision to adopt new products. The current review developed scales for each variable of the study. Atuahene-Gima (1997) had only developed his conceptual framework and propositions for each variable. Then he encouraged other researchers to test his model.

Anderson and Robertson (1995) examined the variables affecting sales force decision to adopt house brands. House brands are services. The current research sought to find out the variables affecting the decision of sales people to adopt industrial products. Another difference here is that the current review did not examine any industrial product in particular as the study by Anderson and Robertson (1995) had done. The aforementioned authors examined sales force adoption of new services and particularly the adoption of house brands. The current study improved on the work by Anderson and Robertson (1995) in that it examined the influence of new product/services attributes (Rogers 1995) as previously mentioned.

#### 2.10 Gaps in the literature

As described in the literature above, extant research has focused on the adoption of new products by final customers as well as on the adoption of innovations by organisations. The current research is aiming at filling the gap in the literature by examining the adoption of new products by the sales force of the organisation. The new product sales force adoption literature has paid little attention to the variables affecting the decision of the sales force to adopt new products. The current research will fill this gap by constructing a comprehensive conceptual framework of the variables influencing the decision of the sales force to adopt new products.

Some variables are from the general literature of the adoption of innovations. As seen in the literature review many authors have extensively used the variables related to the new product attributes in order to investigate the adoption of innovations by consumers and in other cases by organisations. The current study will fill the gap in the literature by examining the influence of new product factors (i.e., the relative advantage, the compatibility) on the decision of the sales force to adopt new products.

The variable of marketing orientation is from the general literature of the adoption of innovations as well as the marketing orientation literature. None of the previous



researches have examined the influence of marketing orientation on the decision of the sales force to adopt new products. The current research will fill this gap in the literature. Other variables are from the sales management literature. In order to encourage new product sales force adoption, firms need to make managerial and organisational changes when they introduce new products. The variables of training, feedback and sales management control systems have been widely used in examining the sales force performance and satisfaction. The study will fill the gap in the literature by examining the aforementioned variables in the context of sales force new product adoption. In other words, the research will investigate the effect of the variables related to sales managers, on the decision of sales people to adopt new products.

Variables related to sales force characteristics have extensively been examined in the sales management context as tools that would influence the performance of sales people. The current research will fill the gap in the literature by examining the effect of the sales force factors (i.e. sales force learning orientation and career success) on the decision of the sales force to adopt new products.

Finally, variables related to the environment such as market volatility and competitive intensity have been examined in the context of organisational adoption of new products. The study will fill the gap in the literature by examining the effect of the aforementioned factors on the decision of the sales force to adopt new products.

# 2.11 Contributions to knowledge

The current research will make three contributions to knowledge. These contributions are as follows:

 The first contribution to knowledge is the development of a theoretical framework incorporating the factors affecting new product sales force adoption,

- The second contribution to knowledge is the development of scales applicable to the new product sales force adoption context, and
- 3) The third contribution to knowledge is the integration of the new product sales force adoption literature with the general literature of the adoption of innovations and with the sales management literature.

## 2.11.1 The development of the theoretical framework

Adoption of new products by the sales force composes of two dimensions: commitment and effort. Commitment is when sales people accept the new product. They get emotionally involved and are committed to make it successful. Effort is when sales people work hard in order to achieve the goals of the new product. Sales people will not be able to sell the new product if they are not committed to it. In addition, they must put effort to sell the new product.

Although the two dimensions of the construct could have direct and independent effects on the sales person's behaviour and output, the study will emphasise their interaction for a significant theoretical reason. The innovation adoption literature generally conceptualises adoption as functional, pro-change behaviour by the adopter. The rationale for this conceptualisation is that the adopter sees the characteristics and benefits of the innovation as congruent with his/her personal goals and values (Gatignon and Robertson 1985; 1989; Rogers 1983; Samli, Wirth, and Wills 1994; Tornatzky and Klein 1982).

Extrapolating to the sales person, adoption is energised by his/her identification and internalisation of the goals of the new product. The logic is that a new product may be more advantageous for the sales person to sell than existing products. Hence, adoption is an indication that the new product goals are congruent with the goals and values of the sales person (Gatignon and Robertson 1985; 1989; Rogers 1983; Samli, Wirth, and Wills 1994; Tornatzky and Klein 1982).

However, a sales person could also perceive a new product as disadvantageous to sell. Such a sales person will be relatively less predisposed or committed to a new product. Yet, given that as an employee of the firm he/she would be required to sell the new product, he/she is likely to resist or at best engage in compliant selling and dysfunctional behaviour in the selling process. It is argued therefore that mere effort in new product selling without commitment to its goals does not constitute adoption. For this reason, adoption needs to be conceptualised as the expression of both commitment and effort. This conceptualisation is in keeping with recent suggestions that researchers should guard against "pro-change" bias in new product adoption and should consider innovation resistance (Gatignon and Robertson 1985; 1989).

Authors examining the issue of adoption of the new product by the sales force have not yet created a comprehensive conceptual framework of what influences the dimensions of the sales force adoption construct. The current study will examine the factors influencing both dimensions, which are the commitment and effort. This contribution would be added to the growing body of knowledge as to the factors influencing the new product adoption by the sales force.

# 2.11.2 The development of scales

As mentioned before, the second contribution to knowledge is the development of scales applicable to the sales force new product adoption context. After an extensive literature search, the researcher has found some measures that can be applied to the context of the adoption of new products by the sales force. However, adjustments needed to be made. Thus, sales people opinions were asked. The researcher conducted interviews with sales people in firms and scales were developed.

## 2.11.3 The integration of the literatures

The third contribution to knowledge is the integration of the new product sales force adoption literature with the general adoption of innovations literature and the sales force management literature.

Research has addressed the adoption and rejection of new products by customers (Gatignon and Robertson 1989; Rogers 1995). Other authors (Frambach et. al., 1993, 2000) have examined the adoption of innovations by organisations. Although this literature is valuable, it is deficient in that it has focused on organisations and on final customers with little attention to other market participants such as the sales force. As mentioned, the current research will examine the adoption of new products by the sales force.

The general literature on the adoption of innovations has given insights into the factors affecting adoption of new products by other units of adoptions. Some of these factors will be used as variables affecting the adoption of new products by the sales force. Anderson and Robertson (1995) defined the sales person's adoption of a new product as the proportion of sales that he/she derives from the new product, and suggested that adoption is a function of effort in selling a new product. Among the determinants of sales person performance and satisfaction, effort has been identified as one of the most important (Brown and Peterson 1993; 1994; Chowdhury 1993; Leong et. al. 1994). Effort at selling the new product is defined as the sales person's force, energy, persistence, and the intensity of his/her activities to achieve desired results (Brown and Peterson 1994; Naylor, Pritchard and Ilgen 1980; Sujan 1986). Also, the duration of time spent working represents an important aspect of effort (Campbell and Pritchard 1976).

In addition to effort the sales force new product adoption construct consists of commitment. Chonko (1986) commented that commitment "is independent of selfish interests and of immediate and temporary situational concerns." A sales person's commitment is an attitude; it includes his/her acceptance of the new product (Mathieu

and Zajac 1990). Sales force commitment is his/her emotional commitment to make the new product a success (House and Mitchell 1974, Meyer and Allen 1991). Wotruba and Rochford (1995), imply that by making adjustments (1) in organisational structures, (2) training, (3) reward and compensation systems on the introduction of new products, managers hope not only to enhance sales person's affective acceptance of the new products but also to engender increased effort in selling them.

A number of firms have begun to introduce an element of intra-sales force competition into routine product-knowledge training in an effort to learn more effectively, and have fun in the process (Payne-Taylor and Berszinn 1987). Such activities may well engender a more positive psychological association with the job on the part of sales people (Ingram, Lee, and Skinner 1989). Sales managers should also give serious consideration to the reduction of role conflict and role ambiguity through training and socialisation programmes (Dubinsky et. al., 1986; Krayer 1986).

Excess levels of role conflict and role ambiguity can contribute to psychological withdrawal from the job (Ford, Walker and Churchill 1976). Several studies suggest that the extent to which the sales person is unsure of what to do and how to perform his/her job is a critical factor affecting job attitudes such as satisfaction, commitment and effort (Behrman and Perreault 1984; Brown and Peterson 1994). With respect to new products, uncertainty about a role results in less purposeful commitment and effort by sales people (Behrman and Perreault 1984; Brown and Peterson 1994).

It is understood that sales managers must create the climate in the organisation so that adoption of new products by the sales force can be enhanced. Further, sales managers play a critical role in influencing the learning orientation of sales people. A new product requires learning, of new selling methods. Sales managers must spark, shape and elevate learning of sales people. The role of sales managers is important in motivating sales people to adopt new products. Variables from the sales management literature will be incorporated in the theoretical framework of the study.
The variables that will be taken from the adoption of innovations and the sales management literature will develop the conceptual framework of the study. This will result in the integration of the sales force new product adoption literature with the sales management literature and the general literature of the adoption of innovations, thus, leading to the third contribution to knowledge.

#### 2.12 Conclusion

This chapter described the literature review. It justified the reasons for selecting this literature for the current research. In addition, the chapter presented an explanation of how this study differs from earlier studies. Furthermore, the contributions to knowledge were presented here. Compared to the literature on the adoption of innovations by organisations and consumers, there is little research on the adoption of new products by the sales force. A great deal of effort has been focused on better understanding the new product process. The effectiveness of the initial product launch and the sales effort as well as commitment to introduce the product are particularly important as most firms are faced with limited resources. The current study will fill the gap in the literature by examining the variables influencing sales force new product adoption.

The chapter that follows presents the conceptual framework of the study (figure 3.1). The conceptual framework is an integration of the literatures described in the current chapter. It incorporates the category of variables affecting the decision of the sales force to adopt new products. One category of variables is the new product factors affecting sales people decision to adopt new products (Figure 3.2). These factors are the relative advantage, the compatibility and the complexity of new products. Another category consists of the organisational factors. This category includes the commitment of the firm to innovations and the marketing orientation of the firm (Figure 3.3). The current study also examines the category of the sales managers' factors. The sales managers' factors are the training, the feedback giving and the sales management control systems (Figure 3.4). Sales managers are the ones, who are in the position to motivate sales people to adopt new

products by applying the most suitable sales control systems, by giving feedback to sales people and by training them.

In addition, the category of the sales force factors was examined in the current study. This category includes the sales force career success, experience and learning orientation (Figure 3.5). Finally, the category with the environmental factors was developed in this study. This category includes the competitive intensity and the market volatility (Figure 3.6). Apart from the direct influence on the decision of sale people to adopt new products, the variable of competitive intensity has also been used as a moderator between the sales force career success and the sales force new product adoption decision (Figure 3.7).

Past research has found that product factors (Rogers 1995) affected customer decision to adopt new products. Sales people are the ones, who can persuade customers to adopt new products. Sales people are the link between the organisations and its customers. They are the change agents, which persuade customers to buy the products of the firm. In order to persuade customers to buy new products, sales people must first adopt these products themselves. Thus, it was important to examine these new product factors as well as other variables influencing sales people decision to adopt new products.

The variables of the current study resulted in a series of propositions. The propositions are presented in the next chapter. The conceptual framework and propositions provide a first step toward developing a foundation for greater understanding of the role of the sales force in new product development, particularly during the launch process.

## CHAPTER 3 – THE CONCEPTUAL FRAMEWORK

#### 3.1 Introduction

The research will investigate the factors that lead to the commitment of the sales force to the new product as well as to their effort to sell new products to customers. This chapter presents the conceptual framework of the study. The conceptual framework is depicted in figure 3.1. It consists of the categories of variables that affect sale force adoption of new products. These are the new product factors (figure 3.2), the organisational factors (figure 3.3), the sales manager's factors (figure 3.4), the sales force factors (figure 3.5), and the environmental factors (figure 3.6).

In addition, the chapter presents the propositions that have been developed. The first set of propositions pertains to the new product factors. The second set of propositions pertains to the organisational factors. The third set of propositions pertains to the sales managers' factors. The fourth set of propositions pertains to the sales force factors. Finally, the fifth set of propositions pertains to the environmental factors.

## Figure 3.1

<u>Conceptual Framework of Factors Affecting the Adoption of New Products by the</u> <u>Sales Force</u>



## 3.2 The New Product Factors

This section will examine the relative advantage, the compatibility, and the complexity of the new product, whose source is the general literature of the adoption of innovations (*sections 2.3.1, 2.4.3, and 2.4.8*). The new product factors and their sources in the literature are depicted in table 3.1 below. The proposed relationships are described in figure 3.2 of this chapter.

New Product Factors	Source in the literature	
Relative advantage, compatibility and complexity	Sections (2.3.1), (2.4.3), and (2.4.8) (Verhoef and Langerak 2001; Kim and Srivastava 1998; Frambach 1993; 2002; Rogers 1995)	

#### Table 3.1

### The Relative Advantage of the New Product

Diffusion scholars have found relative advantage to be one of the best predictors of an innovation's rate of adoption (Gatignon and Robertson 1985; Frambach 1993; Frambach, et. al., 1998; 2002; Rogers 1995). Relative advantage indicates the benefits and the costs resulting from adoption of an innovation. Past investigations of the perceived attributes of innovations almost universally report a positive relationship between relative advantage and rate of adoption (Rogers 1995).

A new product could open up new markets, customer opportunities and selling experiences that could enhance his/her skill base and earnings. Further, success at selling new products could enhance the personal value and reputation of the sales person in the organisation (Brewer 1996). However, a sales person could perceive a new product as disadvantageous since it could lead to more work, reduce time available for selling existing products and could engender uncertainties and ambiguities in the work setting (Wotruba and Rochford 1993; 1995). Perceived relative advantage in selling the new product should lower the dysfunctional effects of the perceived role ambiguities and stresses associated with the new product (Atuahene-Gima and Micheal 1998). Relative advantage defines the degree to which the sales person perceives that selling a new product is relative more advantageous than selling existing products (Atuahene-Gima and Micheal 1998). Thus, the study will propose that sales people, who perceive the new product as advantageous to sell will be willing to adopt it.

The proposition for the relative advantage is as follows:

**P1:** The greater the relative advantage of new products, the greater the adoption of new products by the sales force.

#### The Compatibility of the New Product

Compatibility is the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters (Rogers 1995). Diffusion researchers have found that there is a positive relationship between compatibility and the rate of adoption of an innovation (Gatignon and Robertson 1985; Frambach 1993; Frambach, et. al., 1998; 2002; Rogers 1995).

In their study, Atuahene-Gima and Micheal (1998) have used the concept of compatibility to examine the linkage between sales force effort in selling the new product and the outcomes of effort, which are the sales force satisfaction and performance. According to the aforementioned authors compatibility refers to the extent

to which the resources and skills required by the new product are related to current resources and skills of sales person's company. This concept parallels the concept of compatibility stated by Rogers (1995), which refers to the degree to which an innovation is perceived as consistent with present systems, needs and norms of potential adopters.

As novelty of the product to the firm increases, the uncertainty and risks associated with the selling process increases for the sales person. A new product that is related to the seller's resources and skills is less likely to lead to increased uncertainty and ambiguities about appropriate selling behaviours for the sales person. Additionally, such uncertainty may not be easily overcome by the sales person because of the lack of experience of others in the firm from whom he/she may seek feedback and guidance. Thus, where the new product is closely related to the firm's resources, sales people are more likely to see their efforts rewarded in terms of satisfaction and performance more so than where the new product is seen as unrelated to the firm (Atuahene-Gima and Micheal 1998).

Further, the new product literature suggests that products that are synergistic with a firm's marketing and other resources are more likely to be successful. One of the rationales is that customers are likely to be more receptive to such new products because they trust that the firm has the resources to fulfil and deliver on its promises (Nayyar 1990). Thus, the study will propose that the greater the compatibility of the new product, the greater the adoption of the new product by the sales force.

The above leads to the following proposition:

**P2:** The greater the compatibility of new products, the greater the adoption of new products by the sales force.

#### The New Product Complexity

New product complexity is defined as the degree of sophistication and technicality inherent in the new product. Research in the adoption of innovations by customers (Gatignon and Robertson 1985; Rogers 1995) and organisations (Frambach 1993) have found a negative relationship between the complexity of the new product and the rate of adoption.

Complex products may give sales people the feeling that they loose control over the selling process, and they may be more likely to engage in dysfunctional behaviours. Bello and Gilliland (1997) found that distributors were more likely to engage in opportunistic behaviours when selling complex products. However, new product complexity was positively related to new product selling performance (Hultink, Atuahene-Gima, and Lebbink 2000). Contrast to the findings of Rogers (1995) the current study will propose that the greater the product complexity, the greater the adoption of new products by the sales force. The rationale is that sales people may relish the challenge in selling complex new products. Hence, they will be willing to adopt complex new products.

The proposition for the complexity of the new product is as follows:

**P3:** The greater the new product complexity, the greater the adoption of the new product by the sales force.

# Figure 3.2 Proposed Relationships of New Product Factors



## 3.3 The Organisational Factors

Propositions on the commitment of the firm to innovations and on the marketing orientation are presented here. The first variable on the commitment of the firm to innovations is from the general literature on the adoption of innovations (section 2.4.4) and the literature of the adoption of new products by the sales force (section 2.6). The second variable on marketing orientation is from the general literature on the adoption of innovations (section 2.4.2) and the marketing orientation literature (section 2.8). The organisational factors and their sources in the literature are described in table 3.2 below. The proposed relationships of the firm's commitment to innovations and the marketing orientation are described in figure 3.3 of this chapter.

#### Table 3.2

Organisational Factors	Source in the literature	
Firm's commitment to innovations	Sections (2.4.4) and (2.6) (Anderson and Robertson 1995; Scott and Bruce 1994)	
Marketing Orientation	Sections (2.4.2) and (2.8) (Avlonitis and Gounaris 1997; Piercy 1992; Gatignon and Robertson 1985)	

### The Firm's Commitment to Innovations

A firm's commitment to innovations refers to the degree to which it signals to employees about the value and importance it attaches to new product development. Such commitment is a significant determinant of employee behaviour including innovative behaviour (Scott and Bruce 1994).

Anderson and Robertson (1995) found that the greater the sales person's perception of commitments made by the firm to the house brand, the greater the sales person's adoption of these products. Sales people recognise investments devoted to innovation as indications that the firm will support their efforts. Such support encourages new product adoption by the sales force and discourages dysfunctional behaviour. The rationale is that with such demonstration of commitment and support for its new products, sales people become more confident in selling them. Firm commitment also provides a surrogate for the quality of the firm's new products, which reassures sales people that they are selling products, which satisfy customers (Anderson and Robertson 1995). Thus, the study will propose that firm's commitment to innovations will positively affect the decision of sales people to adopt new products.

The previous leads to the following proposition:

**P4:** The greater the sales person's perceived commitment of the firm to innovations, the greater the adoption of new products by the sales force.

#### The Marketing Orientation

Marketing is concerned with the facilitation of exchange processes between organisations and their environments (Bagozzi 1975; Hunt 1976; McCarthy and Perreault 1987). The facilitation generally takes the form of marketing mix activities, such as branding, pricing, customer service, advertising, and personal selling. More than a set of specific activities, however, marketing represents a philosophy of business (Deshpande and Webster 1989). Drucker (1977) explains that "the aim of marketing is to know and understand customers so well that the product or service fits them and sells itself." The essence of this orientation is captured in the marketing concept, in which companies are encouraged to (a) focus on specific target markets, (b) concentrate on

customer needs, (c) integrate an emphasis on customer satisfaction throughout all the activities and personnel of the firm, and (d) invest in long-term profitability (Kerby 1972; Kotler 1988; McKetterick 1957; McNamara 1972).

Considerable attention has been given to the need for firms to become more marketdriven and customer-oriented (Canning 1988; Deshpande and Webster 1989; McNamara 1972; Webster 1988). This is the essence of the marketing concept. Anecdotal and empirical evidence has been produced, which suggests a positive relationship exists between company financial performance and the amount of emphasis placed on user requirements and customer satisfaction (Lusch and Laczniak 1987; Cooper 1979; Peters and Waterman 1982; Rothwell 1980). Investing in customer satisfaction does appear to affect company performance.

Peters and Waterman (1982), in their landmark study on excellence in American business, found "closeness to the customers" to be a leading characteristic of the top performing companies. Rothwell (1980) reported evidence that "attention to marketing, user needs and after-sale servicing" distinguished the most successful innovators and technically progressive firms from others. Cooper (1979; 1982) has provided empirical evidence that "market knowledge and marketing proficiency" was a critical factor differentiating successful from unsuccessful new products. Several authors have found that marketing orientation had a positive effect on company performance (Narver and Slater 1989; Avlonitis and Gounaris 1997).

Marketing actions are important in influencing the speed of diffusion, as well as the diffusion process by market segment. Indeed, in most cases marketing actions are designed to achieve faster penetration to secure a quicker return on investment, to block competition, and to establish a market franchise. It has been proposed that marketingmix variables – namely, advertising, price, and personal selling, would have an impact on new product adoption by final consumers (Gatignon and Robertson 1985). Identifying and satisfying customer needs is very important in order for companies to sustain and compete in their environment. Sales people, who are confident that their companies have created products, which are what, customers want, will be motivated to adopt them. Thus, the current study will propose that marketing orientation will have a positive effect on the decision of the sales force to adopt new products.

The above leads to the following proposition:

**P5:** The greater the marketing orientation of the firm, the greater the adoption of new products by the sales force.

Figure 3.3 Proposed Relationships of Organisational Factors



#### 3.4 The Sales Managers' Factors

The sales management literature includes variables that might influence adoption of new products by the sales force. The behaviour of sales managers is important in new product adoption by the sales force (Anderson and Robertson 1995). The variables of training, feedback and the sales management control systems are examined in this section. The variable on training is from the literature of the adoption of new products by the sales force (*section 2.6*) as well as the sales management literature (*section 2.7.1.1*). The variable on feedback is from the literature of the adoption of new products by the sales force (2.6) as well as the sales management literature (*section 2.7.2*). The variable on sales management control systems is from the literature of the adoption of new products by the sales by the sales force (*section 2.6*) as well as the sales management literature (*section 2.7.2*). The variable on sales management control systems is from the literature of the adoption of new products by the sales by the sales force (*section 2.6*) as well as the sales management literature (*section 2.7.2*). The variable on sales management control systems is from the literature are depicted in table 3.3 below. The proposed relationships of training, feedback, and the management control systems, are described in figure 3.4 of the chapter.

Tabl	e	3	3
	-		-

Sales Manager's Factors	Source in the literature
Training	Sections (2.6) and (2.7.1.1) (Atuahene-Gima 1997; Anderson and Robertson 1995; Wotruba and Rochford 1993)
Feedback giving	Sections (2.6) and (2.7.2) (Atuahene-Gima 1997; Singh 1993; Jaworski and Kohli 1991)
Behaviour-based control system	Sections (2.6) and (2.7.4.1) (Atuahene-Gima 1997; Piercy et. al., 1997; Corcoran et. al., 1995; Cravens et. al., 1993)
Outcome-based control system	Sections (2.6) and (2.7.4.1) (Atuahene-Gima 1997; Cravens et. al., 1993; Hultink and Atuahene- Gima 2000)

## The Training

Anderson and Robertson (1995) have examined the influence of training on the decision of sales people to adopt house brands. The concept of training has also been examined by Hultink and Atuahene-Gima (2000) in the relationship between the sales force new product adoption and the new product selling performance. The aforementioned authors expected that training would strengthen the positive relationship between sales force new product adoption and selling performance.

A new product may require sales people to acquire new selling skills, to make calls on new and unfamiliar customers, and to learn about new competitor products. Effective training is therefore important not only to impart new skills in selling, to motivate and increase the loyalty of sales people to the new product, but also to ensure that sales people understand their responsibilities and procedures for effective selling. Further, the nature, number of resources and effort that go into training for the new product provide indications of management's commitment and support for the new product. Effective training encourages adoption because it makes it easier for sales people to sell the new product (Anderson and Robertson 1995) and is therefore likely to hinder dysfunctional behaviour in selling. Thus, the study will propose that training will positively affect the sales force decision to adopt new products.

The previous leads to the following proposition:

**P6:** The greater the training of the sales person, the greater the adoption of new products by him/her.

#### The Feedback giving

Atuahene-Gima (1997) examined the impact of feedback on the decision of the sales force to adopt new products. Other authors examined the concept of feedback as a determinant of new product selling performance (Hultink, Atuahene-Gima, and Lebbink 2000).

Giving feedback is an important mechanism by which sales managers create positive outcomes, clarify roles, reduce the urge for dysfunctional behaviour, and in general show support for sales people (Sujan 1986; 1994). Jaworski and Kohli (1991) showed that positive feedback serves as informational as well as a motivational role, and that negative feedback primarily serves an informational role in improving sales performance. Tyagi (1985) found that feedback is instrumental in affecting sales performance in that sales people use the given feedback to improve their own performance. Feedback provided by the sales manager was related positively to new product selling performance (Hultink, Atuahene-Gima, and Lebbink 2000).

Sales managers who frequently provide high quality feedback in a timely fashion ensure effective learning by the sales force. Anticipating this, sales people are more likely to try out new and risky ideas in selling since they are confident of quick and accurate feedback to make speedy adjustments in selling behaviour. Many sales managers travel with their sales people upon the introduction of a new product (Wotruba and Rochford 1995). The objective of such companionship is to provide support and show empathy with sales people.

It demonstrates not only recognition of the special problems associated with new product selling, but also the need for managers to have first hand knowledge of the selling situations in order to provide timely and quality feedback. Where sales managers provide effective feedback, sales people are likely to feel less ambivalent about their role, will be better armed to experiment and take risks in selling, and to refrain from dysfunctional behaviour (Atuahene-Gima 1997). Thus, the study will propose that feedback giving by sales managers will positively affect the sales force decision to adopt new products.

The above leads to the following proposition:

**P7:** The greater the feedback giving to the sales person, the greater the adoption of new products by the sales person.

#### The Sales Management Control Systems

A sales force control system describes the manner in which the firm monitors, supervises, evaluates, and rewards the behaviour and output of sales people. There are formal and informal control systems (Cravens, Ingram, LaForge, and Young 1993; Jaworski and MacInnis 1988; Oliver and Anderson 1994; Ouchi; 1979). Following the advice of Anthony (1965), the focus here is on formal control systems because, unlike informal systems, which are designed by management. The formal control systems are the following:

- 1) The Behaviour-Based Control System, and
- 2) The Outcome-Based Control System.

#### 1) The Behaviour-Based Control System

A behaviour control system attempts to influence the means of achieving sales objectives by prescribing the methods and procedures for performing sales activities. It involves a greater proportion of fixed salary payment rather than commission or bonus since rewards reflect the achievements of desired sales behaviours. The fixed salary provides a sense of certainty and security to sales people. Under such a control system employees are more likely to take a long-term view and take risks in the performance of their duties (Jaworski and MacInnis 1988; Oliver and Anderson 1994).

Sales people are more likely to engage in such activities as relationship building and service, which do not result in immediate sales but are necessary for the success of new products in the long run. They are less likely to use high-pressure selling techniques, which may increase their sales but which are harmful to the product and image of the firm (Churchill, Ford and Walker 1993). Further, sales people can take time to learn about the new product, procedures, and appropriate selling techniques without undue concerns for immediate outcomes. Behaviour control system therefore leads to greater

commitment from sales people because they view such a system as more supportive (Oliver 1977; Oliver and Anderson 1994).

It could be argued that since such a control system requires close monitoring and reporting of sales person activities it could lead to perceptions of loss of autonomy and a feeling of management distrust among sales people and thus to dysfunctional behaviour (Ramaswami 1996). However, this may not be the case in new product selling. The logic is that sales people, particularly those in the field, have little ongoing contact with management. Therefore, close supervision might stifle some discretion (Ramaswami 1996) but it indicates managerial concern and support, which may increase their commitment and motivation to sell the new product (Churchill, Ford and Walker 1993).

In their study, Hultink and Atuahene-Gima (2000) suggested that the positive effect of sales force adoption of a new product on selling performance was weaker when behaviour-based control was higher. The justification was that such a control system stifled the sales person's discretion and flexibility (Ramaswami 1996). Nevertheless, the suggestion made by Hultink and Atuahene-Gima (2000) was not supported. The previous finding indicated that although the behaviour control system stifled behaviour discretion (Ramaswami 1996), the positive effect of sales force adoption of a new product on selling performance was not weaker when behaviour-based control was higher.

One explanation could be that a behaviour-based control system was viewed by sales people as more supportive (Oliver 1977; Oliver and Anderson 1994). Piercy, Cravens, and Morgan (1998) have found a positive relationship between the behaviour-based management control system and sales force performance. Thus, the study will propose that behaviour-based control system will have a positive effect on the decision of the sales force to adopt new products. The previous leads to the following proposition:

**P8:** The greater the degree to which a sales control system is behaviour-based, the greater the new product adoption by the sales force.

#### 2) The Outcome-Based Control System

An output control system shifts the responsibility for output to the sales person. Management prescribes specific outputs that need to be achieved and leave the choice of methods and procedures for their achievement to the sales person. An output control system provides pecuniary incentives for sales people to perform at maximum levels, but may lead to little loyalty to the company or products, use of high pressure techniques in selling, and attention to activities with more immediate outcomes (Churchill, Ford and Walker 1993). Such a control system is found to stifle risk taking and the development of long-term strategies by the sales person since these have little immediate effects on outputs (Cravens, Ingram, LaForge and Young 1993; Jaworski and MacInnis 1988; Oliver and Anderson 1994).

For example, under an output control system the sales person cannot afford to have bad sales periods because his/her income may depend solely on outputs. It is not only likely to lead sales people to stress immediate results and thus emphasise selling existing products but also to the avoidance of, or dissatisfaction with, new selling activities with uncertain outcomes. Further, an output control system does not take account of environmental and other conditions, which may adversely affect performance but which are beyond the sales person's control. This could also lead to a feeling of loss of personal control over outcomes (Maremont 1995). Thus, Atuahene-Gima (1997) proposed that the greater to which the sales control system was outcome-based, the lower the new product adoption by the sales force and the greater the dysfunctional behaviour in selling.

The positive impact of new product adoption on selling performance was stronger when the outcome-based control was higher (Hultink and Atuahene-Gima 2000). Outcomebased control establishes a direct link between performance in selling the new product and the potential rewards. Sales people know that exceeding performance objectives results in rewards whereas failure results in sanctions. With these advantages coupled with the flexibility and discretion allowed to them in the selling process, sales people see outcome-based control as providing further motivation to perform well. It allows sales people who have adopted a new product greater autonomy to achieve their objectives (Hultink and Atuahene-Gima 2000). The finding by Hultink and Atuahene-Gima (2000) suggested that sales people who have adopted a new product might be more successful in selling it when sales managers used outcome-based control.

Outcome-based control also empowers sales people by giving them discretion to make day-to-day decisions about job related activities. Hence, it provides incentive for the employee to assume responsibility for results, and to adapt behaviour to take advantage of emerging opportunities (Jaworski 1988; Ouchi 1979). Through greater autonomy sales people are more likely to have a greater sense of commitment and effort to achieving results for the new product (Hultink and Atuahene-Gima 2000). The study will propose that the greater the outcome-based control system, the greater the new product adoption by the sales force.

Thus, the previous lead to the following proposition:

**P9:** The greater the degree to which the sales control system is output-based, the greater the new product adoption by the sales force.

# Figure 3.4 Proposed Relationships of Sales Managers' Factors



## 3.5 The Sales Force Factors

This section examines the career success, the experience, and the learning orientation of sales people. The variable of sales force career success is from the literature of the adoption of new products by the sales force (*section 2.6*) as well as from the literature of the sales management (*section 2.7.3.1.1*). The variable on sales force experience is from the adoption of new products by the sales force literature (*section 2.6*) as well as from the sales management literature (*section 2.7.2*). The variable on the learning orientation of sales people is from the literature on the adoption of new products by the sales force (*section 2.7.2*). The variable on the learning orientation of sales people is from the literature on the adoption of new products by the sales force (*section 2.7.5.2*). The sales force factors and their sources in the literature are depicted in table 3.4 below. The proposed relationships of career success of sales people, sales force experience, and learning orientation of sales people are described in figure 3.5 of the chapter.

Sales Force Factors	Source in the literature
Career Success	Sections (2.6) and (2.7.3.1.1) (Atuahene-Gima 1997; Anderson and Robertson 1995; Cron et. al., 1988)
Experience	Sections (2.6) and (2.7.2) (Atuahene-Gima 1997; Anderson and Robertson 1995; Churchill et. al., 1985)
Sales Force learning Orientation	Sections (2.6) and (2.7.5.2) (Kohli, Shervani, and Challagalla 1998; Atuahene-Gima 1997; cf. VandeWalle and Cummings 1997; Sujan, Weitz and Kumar 1994)

Table 3.4

#### The Career Success of Sales People

The sales force management literature distinguishes between sales people who have successful sales careers year in and year out (the "heavy hitters") and those whose success is yet to be established (Cron 1984; McNeilly and Russ 1992). Following Chowdhury (1993) sales people who have consistently succeeded in sales jobs can be expected to perceive a higher level of mastery of the art of selling (self-efficacy), which creates a higher expectancy of future success.

In turn, this higher expectancy contributes to greater expenditure of effort to achieve more difficult sales goals. This line of reasoning suggests that career-successful sales people are less likely to be daunted by the obstacles of selling a new product. This is because high performers have greatest latitude with their existing employers (Bellizi and Hite 1989), as well as the greatest external value (Futrell and Parasuraman 1984). Management's appreciation of their value builds a safeguard against the hazards of selling new products (Anderson and Robertson 1995). In their study, Anderson and Robertson (1995) found that persistently successful sales people were more likely to adopt house brands.

Weick (1980) suggests that success stimulates persistence for two reasons. First, people are rewarded for success, and second success provides the employee with a secure and stable foundation to embark on new activities in the future. Therefore, successful sales people are more likely to show commitment and exert greater effort and are undaunted by difficult sales situations, which may lead to failure, such as selling new products.

Such sales people are also less likely to engage in dysfunctional behaviour in selling because they are more likely to be confident of their ability and less hesitant to tackle new tasks. In addition, since they are more established professionally and perhaps financially, they are less likely to take shortcuts in selling new products. Unlike these sales people, those whose successes are yet to be established are likely to be hesitant and fearful of difficult sales situations given their lower internal value to the organisation and lower external value in terms of ease of mobility (Atuahene-Gima 1997). Thus, the study will propose that sales force career success will have a positive effect on the sales force decision to adopt new products.

The above leads to the following proposition:

**P10:** The greater the sales people career success the greater the adoption of new products by them.

#### The Sales Force Experience

Experience is defined as the number of years the sales person has spent in his/her current job. The theory of the relationship between experience and adoption of new products appears to be equivocal. Cron (1984) argues that experienced sales people settle into routines that become difficult to change. Experienced sales people are less likely to seek feedback and guidance from superiors because they have learned routines for coping with job demands and are unwilling to change (Behrman and Perreault 1982; 1984). Consequently, they may resist the introduction of a new product since it may require new selling methods and new expectations from customers and superiors (Churchill, Ford, and Walker 1993). Samli et. al., (1994) suggest that ideal sales people in high tech firms should be "knowledgeable and trainable in high tech products sold but not yet set in their ways." In support of these arguments, research suggests that experience hinders the adoption of new house brands (Anderson and Robertson 1995).

However, through experience sales people are likely to gain improved and elaborate understanding of selling situations, customer types, and their potential needs. This knowledge base should enable the sales person to adopt new products to satisfy the emerging needs of his/her customers. It can also be argued that more experienced sales people are more likely to deal successfully with the job-stress and extra demands brought on by the introduction of a new product (Behrman and Perreault 1984). By the same logic, experience should also reduce the urge for dysfunctional behaviour in new product selling since the more experienced the person the greater the understanding that dysfunctional behaviour does not pay in the long run (Atuahene-Gima 1997).

More experienced sales people appeared to derive less satisfaction and performance from their efforts in new product selling than their less experienced counterparts (Atuahene-Gima and Micheal 1998). Selling a new product may require calling on new customers and changes in selling routines, which may task and test the expertise of more experienced sales people. Hence, unlike inexperienced sales people, experienced sales people may resent the extra effort of changing or adapting their selling styles resulting in lower satisfaction and performance (Atuahene-Gima and Micheal 1998). In a recent study Hultink, Atuahene-Gima and Lebbink (2000), found that sales force experience was related positively to new product selling performance. Although, equivocal the evidence appears stronger for the proposition that the greater the sales force experience, the lower the adoption of new products by the sales force.

The above leads to the following proposition:

**P11:** The greater the experience of sales people, the lower the adoption of new products by them.

### The Learning Orientation of Sales People

Kohli, Shervani, and Challagalla (1998), examined the learning and the performance orientation of sales people.

Learning orientation refers to the propensity of the sales person to enjoy the act of selling and to seek better ways of doing so. Sales people with high learning orientation enjoy challenging selling situations, learn through mistakes, and generally seek personal growth through sales activities. They are, therefore, not only more likely to exert greater effort in selling but also improve their selling knowledge and skills by seeking information not only from superiors but also from customers and co-workers (Sujan

1986). In contrast, sales people with performance orientation are likely to have lower propensity to adopt new products and higher propensity for dysfunctional behaviour in selling because they have a greater tendency for risk-aversion in selling. They are unwilling to develop and implement new sales strategies because of the fear that such strategies may lead to mistakes and thus negative evaluations of their performance (Button, Mathieu, and Zajac 1996).

Given the fact that new products usually demand learning of new selling skills, calling on new customers, and meeting new expectations of both managers and customers, it is likely that, unlikely learning oriented sales people, performance oriented sales people are more likely to feel threatened by the introduction of new products and hence are more likely to resist its adoption and to engage in dysfunctional behaviour in selling. Learning-oriented people see failure as useful feedback and an opportunity for learning and respond positively. Learning orientation will lead to higher propensity to adopt new products and lower dysfunctional behaviour in selling because sales people with this orientation are likely to be innovative and risk takers. Hence, they enjoy the challenge of selling such products. In fact, such sales people can be argued to find the selling of existing products relatively boring and unchallenging (Button, Mathieau and Zajac 1996). Thus, the study will propose that the learning-orientation of sales people will positively affect their decision to adopt new products.

The previous leads to the following proposition:

**P12:** The greater the learning orientation of the sales force, the greater the adoption of new products by them.

Figure 3.5 Proposed Relationships of Sales Force Factors



## 3.6 The Environmental Factors

## 3.6.1 <u>Environmental factors with direct effects on the decision of sales</u> people to adopt new products

The variables of competitive intensity and market volatility as having direct effect on the decision of the sales force to adopt new products are examined in this section. Competitive intensity is also examined as a moderator between the relationship of career success of sales people and the adoption of innovations by the sales force. The variable of competitive intensity is from the literature of the adoption of new products by the sales force (*section 2.6*) as well as the general literature of the adoption of innovations (*sections 2.4.3 and 2.4.7*). The variable of market volatility is from the general literature of the adoption of innovations (*section 2.6.1*). The environmental factors and their sources in the literature are depicted in table 3.5 below. Figure 3.6 depicts the effect of competitive intensity and market volatility on the decision of the sales force to adopt new products.

Environmental Factors	Source in the literature		
Competitive Intensity	Sections (2.4.3) (2.4.7) and (2.6) (Frambach, et. al., 2002; Johnson and Scholes 1997; Gatignon and Roberton 1989)		
Market Volatility	Section (2.4.6.1) (Chau and Tam 2000; Tornatzky and Fleischer 1990; Robertson and Gatignon 1986)		

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#### The Competitive Intensity

A sales person faced with strong competition in his/her markets will have his/her adoption of new products tested and may need to exert greater commitment and effort to ensure success than when the competition is weak. The rationale is that strong competition implies multiple supplier choices for the customer hence the sales person must expend greater effort in achieving customer satisfaction with the product. Further, competitive intensity adds greater pressure and uncertainty for sales force in selling new products.

Given the availability of alternative sources of supply for customers in a competitive environment, the sales force may engage in high-pressure techniques and other dysfunctional behaviour in selling. However, adoption in a highly competitive market should lead to greater satisfaction given that the job would be more challenging and intrinsically satisfying than in a non-competitive environment. In contrast, where the sales person faces a market with weaker competition and customers have restricted choice of suppliers, the job of selling the new product loses its intrinsic appeal. Adoption may lead to greater performance but lower satisfaction because of the unchallenging nature of the work (Maremont 1995).

It has been found that sales people relish the challenge in selling new products in highly competitive markets although their efforts may not translate into high performance Atuahene-Gima and Micheal 1998). Since selling new products in a competitive intense market environment is challenging, the study will propose that sales people will be willing to adopt new products in this environment. Challenging work itself is fulfilling and provides intrinsic satisfaction irrespective of the performance outcomes (Brown and Peterson 1994).

The previous leads to the following proposition:

**P13:** The greater the competitive intensity, the greater the adoption of new products by the sales force.

### The Market Volatility

Market volatility pertains to the degree of unpredictability of the new product's market conditions. In a volatile market environment, sales people are less able to forecast customer preferences, competitors' new product introductions, price changes and other factors that may affect their achievement of results for the new product. This makes it difficult for sales people to adapt their selling techniques and methods to the needs of customers. Achrol and Stern (1988) note that market unpredictability creates adaptation problems for market participants. Sales people are more likely to engage in dysfunctional behaviours because they may feel that they lose control over the selling process (Hultink, Atuahene-Gima, and Lebbink 2000).

Despite the onerous challenges sales people face in selling in volatile market environment, they enjoy them and perform better. It has been found that the positive effect of sales people new product adoption on selling performance was stronger when market volatility was higher (Atuahene-Gima and Hultink 2000). Hence, the study will propose that the greater the market volatility, the greater the adoption of new products by the sales force.

The above leads to the following proposition:

**P15:** The greater the market volatility, the greater the adoption of new products by the sales force.

# Figure 3.6 Proposed Relationships of Environmental Factors



## 3.6.2 <u>Environmental factor as moderator between the career success of sales</u> people and their adoption of new products

The environmental factor of competitive intensity has been used as a moderator between the variable of career success of sales people and their decision to adopt new products. The rationale for this decision is to stress the ability of sales people. Nowadays competition is fierce and markets are volatile. This makes it difficult for sales people to operate in this environment and compete. However, career successful sales people can manage to overcome the difficulties which come from the external environment.

The variable on career success of sales people is from the literature of the adoption of new products by the sales force (*section 2.6*) as well as from the sales management literature (*section 2.7.3.1.1*) as seen in table 3.4. The variable on competitive intensity is from the general literature of the adoption of innovations (*sections 2.4.3 and 2.4.7*) as well as the literature of the adoption of new products by the sales force (*section 2.6*) as seen in table 3.5 In figure 3.7 the competitive intensity as a moderator between the sales force career success and the sales force new product adoption is described.

### Competitive Intensity and Career Success of Sales People

Another proposition that is developed here is on the relationship between career success of sales people and their adoption of new products by them. Competitive intensity will be used as a moderator in the above relationship.

Career successful sales people are undaunted by difficult sales situations and they are more likely to be confident in their ability (Atuahene-Gima 1997). In a competitive market environment there is customer resistance (Dhebar 1996). There are multiple suppliers in such an environment. Sales people must expend greater effort in achieving customer satisfaction with new products (Atuahene-Gima and Micheal 1998). Sales people's adoption of new products may lead to little success altogether. However, career successful sales people can cope with the pressures brought by the intense market environment. In such an environment the relationship between careers successful sales people and their decision to adopt new products will be stronger. Thus, the study will propose that in competitive intense environment the positive effect of sales people career success on their decision to adopt new products will be stronger.

The previous leads to the following proposition:

**P14:** The positive effect of sales people career success on their decision to adopt new products is stronger when competitive intensity is higher.

## Figure 3.7

<u>Competitive Intensity as moderator of the sales force career success and sales force</u> <u>new product adoption</u>

The Sales Force Career	+	The Sales Force New Product Adoption
	The Competitive Intensity	
# 3.7 Conclusion

The role of the sales force is important in influencing customers. In addition, as an internal customer of the firm's new products, a new product launched by the firm represents an innovation to the sales person. Hence it was important to look into the factors affecting the sales force decision to adopt new products.

The current chapter presented the conceptual framework of the study (figure 3.1). The determinants of new product adoption by the sales force are the new product factors, the organisational factors, the sales manager's factors, the sales force factors, and the environmental factors. Arguments have been made and propositions have been developed. The conceptual framework of the study is a first step of understanding what influences sales force new product adoption. This will open an avenue to develop a theory concerning the adoption of new products by the sales force.

The following chapter presents the methodology of the study. The study adopted a qualitative approach. Thus, personal interviews with sales people have been conducted. Sales people were asked to name the factors affecting their decision to adopt new products. In addition, they were requested to make comments on the variables of the study. Furthermore, they were asked to describe the variables for creating item/scales. The aim was to validate the conceptual framework (figure 3.1) that has been developed in the current study. Another objective was to develop scales that could be applied to the sales force new product adoption context.

# CHAPTER 4 – METHODOLOGY

# 4.1 Introduction

This chapter presents the research methodology of the study. The chapter discusses the qualitative research design, the philosophical positions, the data source as well as the methods for selecting information.

The study designed qualitative research. Personal interviews with sales people were conducted. As seen in chapter 3, the study constructed a conceptual framework and it developed its propositions. The conceptual framework needed to be refined. Interviewed sales people would state the most important factors affecting the new product sales force adoption. They would also cite the positive or negative influence of each variable on their decision to adopt new products. By this the study's propositions would be developed. In addition, the current study aimed at developing scales applicable to the sales force new product adoption context. For some scales, measures existed in the literature. Other measures needed to be developed. Interviews with sales people were carried out in order to develop scales for the new product sales force adoption construct.

In the adoption of innovations literature it is evident that research has focused on the adoption of innovations by several units of adoptions, such as the final customers and/or organisations. There is little research on the adoption of new products by the sales force. The current study will fill this gap and it will contribute to knowledge by integrating the sales force new product adoption literature with the general literature on the adoption of innovations, the sales management literature, and the marketing orientation literature.

Finally, the current chapter presents the data collection. It discusses the sample size and sample frame. In addition, the chapter gives justification for choosing the industrial sectors selected. Also, it states the sample source, as well as the way the contacts with companies and sales people were done. Furthermore, the current chapter presents the number of companies from each industrial sector and number of sales people who

agreed to participate. Finally, this chapter describes the characteristics of participating companies as well as the characteristics of interviewed sales representatives.

#### 4.2 The qualitative research design

#### Key issues in producing a qualitative research design

Whilst identifying a general interest or topic to research is fairly straightforward, it is much more of a challenge to design an effective project with a clear, relevant and intellectually worthwhile focus to explore the topic. The key issues which researchers should confront in producing plans and designs for qualitative research are the following:

- 1. The first is that researchers should be clear about what is the essence of their enquiry, and should express this as an intellectual puzzle with a clearly formulated set of research questions, and
- 2. The second is involved in linking research questions, methodologies and methods in qualitative research design.

#### 4.2.1 The ontological position of the research

Here, researchers investigate the nature of the phenomena, or entities, or social reality. This requires researchers to ask what the research is about in a fundamental way, and probably involves a great deal more intellectual effort than simply identifying a research topic. It involves asking what researchers see as the very nature and essence of things in the social world, or, in other words, what is the ontological position or perspective (Mason 2000).

Questions of social ontology are concerned with the nature of social entities. The central point of orientation here is the question of whether social entities can and should be

considered objective entities that have a reality external to social actors, or whether they can and should be considered social constructions built up from the perceptions and actions of social actors. These positions are frequently referred to respectively as:

- 1. Objectivism, and
- 2. Constructionism.

Objectivism is an ontological position that asserts that social phenomena and their meanings have an existence that is independent of social actors. It implies that social phenomena and the categories that we use in everyday discourse have an existence that is independent or separate from actors.

Constructionism is an ontological position that asserts that social phenomena and their meanings are continually being accomplished by social actors. It implies that social phenomena and categories are not only produced through social interaction but that they are in a constant state of revision (Bryman 2001; Delanty and Strydom 2003).

From different ontological perspectives social reality might be made up of people, social actors, bodies, subjects, objects, minds, psyches, rationality, emotion, thought, feeling, understandings, interpretations, motivations, ideas, beliefs, attitudes, views, identity, essence, being, experiences, accounts, stories, narratives, words, codes, actions, institutions, structures, among others (Mason 2000).

# 4.2.2 The epistemological position of the research

Here, researchers investigate what might represent knowledge or evidence of the entities or social reality. What researchers regard as knowledge or evidence of things in the social world are epistemological questions. This is designed to help researchers to explore what kind of epistemological position the research expresses or implements (Mason 2000).

The epistemological positions are the following:

- 1. Positivism, and
- 2. Interpretivism.

A particular central issue in this context is the question of whether the social world can and should be studied according to the same principles, procedures, and ethos as the natural sciences. The position that affirms the importance of imitating the natural sciences is invariably associated with an epistemological position known as positivism. Positivism is an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond (Bryman 2001).

Interpretivism is taken to denote an alternative to the positivist orthodoxy that has held sway for decades. It is predicated upon the view that a strategy is required that respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action (Delanty and Strydom 2003).

It is important to distinguish questions about the nature of evidence and knowledge – epistemological questions – from what are apparently more straight forward questions about how to collect, or generate data. The epistemology is, literally, the theory of knowledge, and the researcher should therefore concern the principles and rules by which the researcher decides whether and how social phenomena can be known, and how knowledge can be demonstrated. Epistemological questions should therefore direct the researcher to a consideration of philosophical issues involved in working out exactly what the researcher would count as evidence or knowledge of social things. The researcher should be able to connect the answers to these questions with the answers to the ontological questions, and the two sets of answers should be consistent so that, for example, the epistemology of the researchers helps them to generate knowledge and explanations about the ontological components of the social world, be they social processes, social actions, experiences or whatever (Mason 2000).

The experiences, accounts, thoughts, feelings, understandings, ideas, motivations, attitudes, beliefs, actions, behaviours, views, stories, of sales people are the phenomena or entities, which the current research wished to investigate. The previously stated entities are meaningful properties of the new product adoption by the sales force concept. These entities are not independent of social actors, which in the current research are the sales people. Thus, the ontological position of the current study is contructionism. A legitimate way to generate data on the ontological properties was to talk to sales people, to listen to them, and to gain access to their accounts and articulations. The epistemological position of the current study is the interpretivism. The researcher had to interpret sales people's words. Thus, the application of the methods of the natural sciences to the study of social reality could not be applied in the current study.

# 4.2.3 <u>The Research Topic, the Intellectual Puzzle and the Research</u> <u>Questions</u>

What topic, or broad substantive area, is the research concerned with, looks a little like the starting point for a research project, but should actually follow from the answers to the ontological and epistemological issues stated in the previous sections. Usually a research topic will express something of the researcher's ontological and epistemological position. What is the intellectual puzzle and what do researchers wish to explain as well as what are the research questions must connect to the research topic, as well as the ontological and epistemological issues presented above. In addition, researchers should be addressing themselves to the intellectual and theoretical contributions of their work. Not all researchers will see their projects as theoretical but all qualitative research should be constructed around an intellectual puzzle of some kind, and should attempt to produce some kind of explanation of that puzzle.

One of the main virtues of expressing whatever it is the researcher want to research and explain as a puzzle is that it focuses the researcher's mind on research questions. Once the researcher is thinking in terms of puzzles and explanations, it will be a relatively easy task to formulate a set of research questions, and this will form the backbone of the research design. Research questions (hypotheses or propositions), then, are those questions to which researchers really want to know the answers, and in that sense they are the formal expression of their intellectual puzzle (Mason 2000).

The research topic and the objectives of the current study are presented in section 1.2 of chapter 1 of the study. The research propositions of the study are presented in sections 3.2, 3.3, 3.4, 3.5, and 3.6 of chapter 3 of the study.

## 4.2.4 The purpose of the research

What is the purpose of the research and what is the researcher doing it for, researcher should consider not only familiar academic arguments about increasing or challenging intellectual and theoretical understanding, plugging gaps in knowledge, extending debate and so on, but also issues about the socio-political context of the research practice. In formulating the answers to this question, researcher should not overlook what are sometimes unstated purposes like the achievement of social and political change or a contribution to some wider political effort, or personal advancement (Mason 2000).

The purpose of the current research was to contribute to knowledge. The contributions of the current study are presented in section 2.11 of chapter 2 of the study.

#### 4.3 Data source

The current study examined the adoption of new products by the sales force. It sought to investigate the factors influencing the decision of the sales force to adopt new products. The investigation was into the implemented decision of sales people to adopt new products. The focus of analysis is the depth of adoption of new products by the sales person. The unit of adoption is the individual sales person. Only sales people who have adopted new products would be asked to participate. These sales people would give a

clear picture of the factors that contributed to their decision to be committed and to put the effort to sell new products. Sales people would be asked the following:

- 1. To identify the variables affecting the decision of sales people to adopt new products,
- 2. To identify the positive or negative relationship between these variables and the sales force new product adoption concept, and
- 3. To describe the variables in order to develop item scales that could be used in the context of the sales force new product adoption.

Only sales people were the ones to give information on the above three issues. Thus, sales people were the interviewees in the current study.

# 4.4 Research Methods

# 4.4.1 The Case study approach

A case study is an empirical inquiry that

- Investigates a contemporary phenomenon within its real-life context, especially when
- The boundaries between phenomenon and context are not clearly evident.

In other words, researchers would use the case study method because they deliberately wanted to cover contextual conditions – believing that they might be highly pertinent to the phenomenon of study. This first part of the logic of design therefore helps to understand case studies by continuing to distinguish them from other research strategies (Yin 2003).

A case study represents more than a simple reconstruction of a set of facts, which have been first collected by an investigator and then assembled into the case study. It is a rather more complex form of record than it at first might appear. A case study contains a description of the features of the 'case', which are regarded by the researcher as being of interest. These might include such things as descriptions of pieces of behaviour, which the researcher has directly observed, and the context in which they occurred, or they could be reports of behaviour by the informant or, more subjective and uncheckable, accounts of the feelings or attitudes of the informant on a given occasion (Dyer 1995).

### The case study inquiry

- Copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
- Relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result
- Benefits from the prior development of theoretical propositions to guide data collection and analysis (Yin 2003).

#### 4.4.1.1 Advantages of a case study

A case study has several advantages which are presented below:

- 1. With a case study researchers could capture and describe changes, which occur over time to psychological processes,
- 2. With a case study would be possible to track the changes and to develop an understanding of the happenings in people's life over a period of time, and
- 3. A case study is capable of providing a much richer and more detailed description of human behaviour and experience.

As it is understood, there are some advantages when adopting the case study approach. However, this study has not employed case studies because the aim was not to invent a new conceptual framework with variables affecting new product sales force adoption. Thus, the study did not wish to take a more detailed, qualitative and exploratory approach as the case study enables researchers to take.

The aim was not to do any description of pieces of behaviour or accounts of feelings of sales people when they were confronted with the decision to adopt new products. The current study has followed the qualitative interviewing approach in order to collect data. It employed semi-structured interviews with sales people. The researcher only asked opinions of sales people on the variables of new products sales force adoption. The objective was to refine the conceptual framework of the study. Respondents discussed the importance of each variable. The current study did not observe the behaviour of sales people. Interviewed sales people only gave some reports on their behaviour and attitude when the firm introduced new products.

# 4.4.2 The qualitative interviewing approach

The term "qualitative interviewing" is usually intended to refer to in-depth, semistructured or loosely structured forms of interviewing. Burgess (1984) calls them "conversations with a purpose". Generally, these types of interviews are characterised by:

- A relatively informal style, for example with the appearance of a conversation or discussion rather than a formal question and answer format,
- A thematic, topic-centred, biographical or narrative approach, for example where researchers do not have a structured list of questions, but does usually have a range of topics, themes or issues which they wish to cover, and
- The assumption that data are generated via the interaction, because either the interviewee(s), or the interaction itself, are the data sources.

# 4.4.2.1 Justification for conducting semi-structured interviews

Not many researchers have in the past examined the adoption of new products by the sales force. A study has developed a conceptual framework with variables affecting sales force adoption (Atuahene-Gima 1997). However, the aforementioned author has not used any method to test whether the variables of his conceptual framework were the ones affecting sales people innovations adoption. In addition, the conceptual framework was broad enough to integrate the selling of both new products and services. Another study looked into the factors affecting new house brands adoption (Anderson and Robertson 1995) whereas the interest of the current study was to examine the variables affecting sales force adoption of new industrial products. Past researches on the sales force new innovations (Rogers 1995). As seen in the conceptual framework of the study, the current review investigated the influence of these new product characteristics on the decision of sales people to adopt new products (figure 3.1).

As it was understood from the above, the current study (Figure 3.1) is different from those of past researches.

The differences are as follows:

- 1. The conceptual framework (figure 3.1) looked into the variables affecting sales people to adopt new industrial products.
- 2. The conceptual framework (figure 3.1) incorporated the category of new products factors. The factors examined were the relative advantage, the compatibility, and the complexity of new products.

The current study was only interested in learning the variables that affected sales people to adopt new industrial products. Incorporating the category of new product factors, the current study integrated the literature of the adoption of new products by the sales force with the general literature of the adoption of innovations. Hence, the current study needed to gain knowledge on the attributes of innovations studied by Rogers (1995). This study examined the influence of these new product attributes on sales force decision to adopt new industrial products.

Thus, it was important to conduct semi-structured interviews with sales people. Specifically, the current review conducted semi-structured interviews with sales people in the pharmaceutical and engineering sectors. Semi-structured interviews with sales people facilitated the refinement of the conceptual framework of the study (figure 3.1). In addition, propositions were developed. Furthermore, with interviews with sales representatives the study's scales were constructed (Appendix 1).

What the current study sought to examine, regarding this research, was complex. This complexity would not be clearly formulated in the interviewees' minds in a way, which they could simply articulate in response to a short standardised question. The researcher wished to achieve depth and roundedness of understanding the variables affecting sales force new product adoption rather than a broad understanding of surface patterns. Qualitative interviewing was more likely to generate a fairer and fuller representation of the interviewees' perspectives. In addition, semi-structured interviews help researchers to be more responsive in the interview interaction, for example, to answer questions the interviewee may ask, to give information, opinions, and support.

#### 4.4.2.2 Stages in the interviews with sales people

The interviews with sales people were carried out in two stages. The stages are as follows:

1. The first stage involved asking sales representatives to cite the factors affecting sales people to adopt new products.

In this stage, interviewees only named the variables that would affect their decision to adopt new products. There were variables found in past researches. However, in this stage, the purpose was not to present interviewees with the variables found in the academic literature.

 The second stage involved asking detailed questions on the variables affecting sales people decision to adopt new products.

In this stage, the researcher presented interviewees with the conceptual framework consisting of the variables found to have an effect on sales force decision to adopt new products. Here, respondents talked about each variable in detail. They stated the positive or negative influence of each variable on their decision to adopt new products along with arguments and justifications. In addition, they made descriptions of each variable so that they could create item scales.

#### 4.5 Scale Development

This section describes the whole process of scale development as is seen in figure 4.1 below. However, the aim of the current study is to develop the set of items based only on qualitative judgement. Thus, the study will only complete the first and the second stage of the scale development process. The third stage, whose purpose is to reduce the items so that a purified scale can be developed, will not be examined in the current research. The fourth stage, whose purpose is the assessment of validity and reliability, will not be examined too. Future research can examine the third and the fourth stages by employing a quantitative method.

Figure 4.1 Process of Scale Development



There is a sequence of operations needed to construct multi-item scales. The characteristic to be measured is frequently called a construct. Scale development begins with an underlying theory of the construct being measured (Malhotra and Birks 2000). A review of the literature covering the adoption of innovations by consumers, organisations and other units of adoption, the literature of the adoption of new products by the sales force, the sales force management literature and the marketing orientation literature yielded a pool of variables considered to impact negatively or positively the decision of the sales force to adopt new products.

The objective here is to develop scales for the variables of the conceptual framework of the study. The first stage was to generate an initial pool of scale items. A review of the academic literature yielded a pool of items that were relevant to the variables under investigation. The large pool of items that were identified was condensed into 100 items. Many items measured similar traits and characteristics, whilst others were not relevant to the adoption of new products by the sales force. Grouping items and removing redundant ones distilled the items. From this pool, 80 items were highlighted to be relevant to the new product sales force adoption context. Here the first stage of scale development has been completed.

The second stage was to select a sample of companies within the engineering and pharmaceutical industrial sectors so that semi-structured interviews with sales people could be conducted. Bearing in mind that exploratory research is necessary when little is known about a phenomenon (Churchill 1996) and particularly when no reliable and valid quantitative measures of a construct exist (Patton 1980), 14 in-depth semi-structured interviews with sales people were carried out. There was not much research on the adoption of new products by the sales force. Thus, it was important to take the qualitative approach.

Researchers usually develop scales inductively by asking a sample of respondents to provide descriptions of their feelings about their organisations or to describe some aspect of behaviour (Hinkin 1995). The inductive approach is so labelled because there

is often little theory involved at the outset as one attempts to identify constructs and generate measures from individual responses. There is little research on the adoption of new products by the sales force. The study aimed at filling this gap in the literature. Thus, sales people's opinions were sought in order to learn about the sales force new product adoption concept, its variables as well as the items describing these variables.

The third stage is the reduction of items developed. This will be achieved in a quantitative manner. Data will be collected on the reduced set of potential scale items from a large pre-test sample of respondents. The respondents will be asked to rate each item in terms of the extent to which they agree that it will influence their new product adoption decision. Then, the data will be analysed using techniques such as correlations, factor analysis, cluster analysis, discriminant analysis and statistical tests. As a result of these statistical analyses, several more items will be eliminated, resulting in a purified scale.

The fourth stage is to assess the reliability and validity of the items. The purified scale is evaluated for reliability and validity by collecting more data from a different sample. On the basis of this assessment, a final set of scale items is selected.

The scale development process is an iterative one with several feedback loops (Malhotra and Birks 2000).

# 4.6 Refinement of the variables of the study

The current research is based on the general literature of the adoption of innovations, the new product sales force adoption literature as well as the literatures of sales management and the marketing orientation. This gave five categories of variables influencing the decision of the sales force to adopt new products (Figure 3.1).

- 1. The new product factors,
- 2. The organisational factors,

- 3. The sales managers' factors,
- 4. The sales force factors, and
- 5. The environmental factors.

New product factors consist of the relative advantage, the compatibility, and the complexity of new products (*section 3.2*).

Organisational factors consist of firm's commitment to innovations and the marketing orientation of the firm (*section 3.3*).

Sales managers' factors consist of training, feedback, and the management control systems (*section 3.4*).

Sales force factors consist of the career success of sales people, the sales force experience, and the learning orientation of sales people (*section 3.5*).

Environmental factors consist of competitive intensity and market volatility as having direct effect on the decision of the sales force to adopt new products (*section 3.6.1*). Further, competitive intensity is used as a moderator in the relationship between sales force career success and new product sales force adoption (*section 3.6.2*).

The study aimed at examining the factors influencing the decision of the sales people to adopt new products. The unit for investigating these factors is the individual sales person. In order to gain a better understanding of the factors influencing new product sales force adoption, the study employed a qualitative research.

The researcher conducted personal interviews with sales people in order to refine the theoretical framework. At the beginning of the interviews sales people were asked to talk about the concept of sale force new product adoption. In order to eliminate the interviewer bias, the interviewer did not show them the model with the variables found in the academic literature. So, sales people were asked to name the factors that affect

their decision to adopt new products. Then the interviewer presented them with the conceptual framework of the current study. Sales people were requested to express the negative or positive influence of the variables of the study on their decision to adopt new products, so that propositions could be developed. Sales people made comments on the general presentation of the framework. They indicated any ambiguities or difficulties they experienced in comprehending the model as well as they offered suggestions they deemed appropriate.

The researcher solicited information from sales people on the practical applicability of the model of the study. Sales people were permitted to make any changes such as deleting any variable that seemed redundant to them or to add some more where necessary. The interviews facilitated a pre-test for the theoretical model of the study. With the changes made by the interviewees, the additions and deletions of variables a comprehensive conceptual framework was developed.

### 4.7 <u>Refinement of scale/items</u>

Interviewed sales people provided assessments for each of the study measures that existed in the literature. Sales people were asked to critically evaluate the items. On the basis of the detailed comments, some items were modified, others were eliminated, and new ones developed. Throughout this process, care was taken to avoid redundancy among items as well as exceptionally lengthy items, multiple negatives, double barrelled items, colloquialisms, and jargon (DeVellis 1991); to avoid agreement bias, both positively and negatively worded items were included in the item pools (Spector 1992). The items were selected for their appropriateness, uniqueness and ability to convey to informants "different shades of meaning" (Churchill 1979). Extra items revealed during the personal interviews yielded a final total of 89 items, which represents the sales force new product adoption context.

#### 4.8 The issues of validity and reliability

Because a research design is supposed to represent a logical set of statements, researchers also can judge the quality of any given design according to certain logical tests. Concepts that have been offered for these tests include trustworthiness, credibility, confirmability, and data dependability. Four tests, however, have been commonly used to establish the quality of any empirical social research. Because the four tests are common to all social science methods, the tests have been summarised in numerous textbooks (Kidder and Judd 1986).

- 1. Construct validity: establishing correct operational measures for the concepts being studied.
- 2. Internal validity: establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships.
- 3. External validity: establishing the domain to which a study's findings can be generalised.
- 4. Reliability: demonstrating that the operations of a study such as the data collection procedures can be repeated, with the same results.

Interviews with sales people revealed the causal relationships between the independent variables and the dependent variable of the study. The dependent variable is the adoption of new products by the sales force as seen in figure 3.1 of the current study. The independent variables are all those, which either positively or negatively affect sales force decision to adopt new products (figures 3.2, 3.3, 3.4, 3.5, and 3.6). Respondents talked about the positive or negative influence of each variable of the study on their decision to adopt new products. Thus, internal validity was established in the current

research but only theoretically. The conceptual model needs to be tested quantitatively in future research.

Interviews with sales people generated an initial pool of scale items. Hence, construct validity was not established in the current study because not all stages of scale development process were completed (figure 4.1).

The current study interviewed sales people in two industry sectors, only. So, the findings cannot be generalised. Thus, external validity was not established. Neither did reliability was established in the current review. Reliability should be evaluated with the help of replication studies.

# 4.9 Data Collection

#### 4.9.1 The Sample size

Qualitative samples tend to be purposive, rather than random (Kuzel 1992; Morse 1989). Qualitative inquiry typically focuses in depth on relatively small samples, even single cases, selected purposefully. The logic and power of purposeful sampling lies in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research, thus the term of purposeful sampling (Patton 1990).

There are some examples of sample sizes from the literature of the adoption of innovations by other units of adoption, rather than the sales force. For example, in the study by Frambach et. al., (1998), examining the adoption of electronic banking in the business market, the authors had followed a qualitative approach and had conducted 11 in-depth interviews. In the study by Nijssen and Frambach (2000), investigating the determinants of the adoption of new product development tools by industrial firms the authors had conducted a qualitative research, which included expert interviews with 7 practitioners.

The aims of the current study were as follows:

1. The refinement of the conceptual framework of the study (figure 3.1), and

2. The development of item/scales.

As seen in the section above of the scale development process, the current study only completed the first two stages of the process (figure 4.1). This study did not employ questionnaires in order to reach the fourth stage of the scale development process. The study only conducted in depth interviews with 14 sales people of whom 10 came from the engineering sector and the rest 4 came from the pharmaceutical sector. Thus, a larger sample of sales representatives was not required.

#### 4.9.2 Sample Frame

Choosing a suitable population from which the sample is drawn is very important. Researchers choose whether to use a population consisting of firms in a single industry or multiple industries and whether to use manufacturing, services, or a mixture of types of firms (Hensley 1999).

The current study aimed at selecting a sample of companies from the manufacturing industry, and conduct interviews with sales people, who sold products. The sample of sales people was drawn from the engineering and the pharmaceutical sectors. Previous research has focused on the adoption of house brands by sales people. The sample of sales people was drawn from the financial services sector (Anderson and Robertson 1995).

The current study focuses on the adoption of new products. The study did not wish to interview sales people who sold services along with those who sold products. Differences in opinions between sales people who sold products and sales people who sold services would be found. Due to the differences in product characteristics between service products and tangible products, it is not obvious that results from studies on the adoption of intangible products can be generalised to settings where tangible products are considered.

As is well known from the literature on services marketing, intangible products such as services are often more difficult to evaluate for potential users, and in an effort to assess quality, attention may shift to peripheral, more tangible aspects of the product, or to prestige or reputation of the supplier (Shostack 1977; Bateson 1992). Therefore, it is expected a different constellation of marketing instruments and their effects. For example, although support for the influence of the perceived complexity of an innovation, operationalised as the degree to which the product is perceived as difficult to handle, on the adoption of new intangible products has been strong (Frambach et. al., 1998), this variable may not be an important determinant of the adoption of new products by the sales force.

# 4.9.2.1 Justification for Selecting the Engineering and Pharmaceutical Sector

The engineering and the pharmaceutical industry provided ideal setting to examine the variables and propositions of the study. In these industries, sales people are important assets to the firms; a form of human capital worth attempting to safeguard. Companies of these sectors usually operate with field sales force. In addition, pharmaceutical and engineering companies frequently introduce new products or improve the old ones. Thus, sales people would be able to recall the factors affecting their decision to adopt recently introduced products.

The study has selected medium and large-sized companies within the pharmaceutical and the engineering sectors. The rationale for choosing medium and large-sized companies was that these companies employ a large number of sales people. Interviews have been conducted with sales people representing both the previously mentioned sectors. Respondents were from medium-sized and large-sized companies. A justification for choosing the engineering sector was that many companies of this sector were located in the area of Birmingham. Thus, it was convenient for the researcher as she was based in Birmingham herself. Several engineering companies showed their willingness to co-operate. The name of Aston Business School played a significant role in motivating sales people from the engineering sector to want to participate. A justification for using the pharmaceutical sector was the nature of the products sold. Pharmaceutical companies have a big range of health care products. In addition, these companies spend a lot of time and money on R&D (Research and Development) as they are producing products to improve the human health.

All pharmaceutical and engineering companies that have been selected operated in the business-to-business markets. Sales people from both selected industry sectors sold products to intermediates. For example, an intermediate for sales people representing the engineering sector is an architect and a medical doctor for sales people representing the pharmaceutical sector. This similarity of selling to intermediates, justifies the choice of the two industrial sectors selected to examine the adoption of new products by the sales force.

# 4.9.2.2 The Sample Source

Some pharmaceutical companies were identified in the Kompass Directory. The Kompass Directory was useful as there was information on the number of employees, a brief description of the nature of the products sold and in some cases the names of some managerial level staff were given. In other cases, the companies were found through the Internet.

Engineering companies were identified from the Applegate Directory. Applegate Directory was more convenient in searching for companies, than the Kompass Directory had been. The advantage of Applegate was that companies were classified by the sector, then by the post-code, the town, the county, etc. This aided the researcher in finding the engineering companies in the area of Birmingham, which were numerous.

# 4.9.2.3 Contacts with Companies and Sales People

Some large and well-known pharmaceutical companies had their own web sites. In some cases, the researcher personally rang them and asked to be put through to any sales manager or a sales person. Some companies disclosed the names of the sales managers or sales people when asked by the researcher. Other companies were reluctant to do so. In other cases, the researcher sent them a letter explaining the reason of contacting them and inviting them for participation. Both pharmaceutical and engineering companies were contacted by telephone and/or facsimile.

In both sectors, the discussion on the phone was sometimes with a sales manager asking them whether any sales person under their supervision could be available for an interview with the researcher in order to expand knowledge on the adoption of new products by the sales force. In some cases, the discussion on the phone was held directly with a sales person asking him/her to participate in an interview with the researcher over the study undertaken at Aston Business School. In both sectors, the study was briefly explained to the sales managers and/or sales representatives and they were offered the summary of the results when the study would be completed.

#### 4.10 Companies and sales people participating in the current study

**Engineering Industry:** From the engineering industry, 8 companies agreed to participate. Of the 8 engineering companies, 4 companies were medium-sized and the rest 4 companies were large-sized. In each of the medium-sized companies, 1 sales person agreed to state his views. Hence, the total was 4 sales people from the medium-sized companies. Of the 4 large-sized companies, 1 sales people from each of the half companies agreed to take part, and 2 sales people from each of the other half companies agreed, thus bringing the number to 6 sales people from the large-sized companies and the total to 10 sales people representing the whole engineering sector (Table 4.1).

**Pharmaceutical Industry:** From the pharmaceutical industry 3 companies agreed to take part. Of these 3 pharmaceutical companies, 2 companies were medium-sized companies and the other 1 company was large-sized. In each of the medium-sized companies 1 sales person was interviewed. In the large company 2 sales people agreed to participate in the interviews, thus bringing the total to 4 sales people representing the pharmaceutical industry (Table 4.1).

#### 4.10.1 Characteristics of Participating Companies

*Engineering Companies:* From the engineering sector, 4 medium-companies and 4large companies agreed to take part in the interviews. The first medium-sized company employed 97 personnel of which 17 were sales representatives. The second mediumsized company employed 86 personnel of which 14 were sales representatives. The third medium-sized company employed 65 personnel of which 11 were sales representatives. The fourth medium-sized company employed 56 personnel of which 7 were sales representatives. As far as the large-sized companies concerns, the first company employed 460 personnel of which 56 were field sales representatives. The second largesized company employed 300 personnel, of which 41 were field sales representatives. The third large-sized company employed 250 employees, of which 34 were field sales representatives. Finally, the fourth large-sized company employed 250 personnel of which 26 were field sales representatives.

Of the 4 medium-sized companies, the first, the second and the third company sold tools and engineering equipment. The fourth company sold plastics. The first large-sized company sold special products for the automotive, space, oil and chemical industry as well as plastics and steel products. The second large-sized company sold building products. The third large-sized company sold house accessories. Finally, the fourth large-sized company sold engineering materials. All 4 medium-sized and all 4 largesized companies operated in business-to-business markets and sold their products to intermediates (Table 4.2). *Pharmaceutical Companies:* From the pharmaceutical sector, 2 medium-companies and 1 large-company agreed to take part in the interviews. The first medium-sized company employed 87 personnel of which 12 were field sales representatives. The second medium-sized company employed 22 personnel of which 3 were field sales representatives. The large-sized company employed 430 employees of which nearly 85 were field sales representatives working in many parts of the UK. The 2 medium-sized companies sold health care products. The large-sized companies as well as the 1 large-sized company operated in business-to-business market and sold their products to intermediates (Table 4.3).

#### 4.10.2 Characteristics of participating Sales People

All respondents were male. They worked an average of 45 hours per week, had average company tenure of 8 years, average experience in current sales job 7 years and overall sales experience of 18 years. They were in general middle aged between 35-50 years. They were of good education having college or tertiary education (Table 4.4). This classification regarding sales persons characteristics follows the work of Atuahene-Gima and Micheal (1998).

# 4.11 Conclusion

The current chapter presented the methodology of the study. It described the scale development process. In addition, it talked about the need to refine the conceptual framework of the study (figure 3.1). In order to validate the conceptual framework as well as to develop scales applicable to the sales force new product adoption context, sales people's opinions were sought. Thus, the study adopted a qualitative approach.

The chapter described the sample size of sales people. The chapter also presented the sample frame. It gave a justification for selecting the manufacturing industry. In addition, the chapter justified the selection of the engineering and the pharmaceutical

sectors. In this chapter, the sample information source, and the contacts with sales people are presented as well. Lastly, the chapter presented the number of companies and sales people that have been selected together with a description of their characteristics. Interviewed sales people were 14, of whom 10 came from the engineering sector and 4 from the pharmaceutical sector.

During the interviews with salespeople, 89 items (Appendix 1) were identified that measure the variables of the study. These items that represent the sales force new product adoption context are described in the following chapter along with other discussions and results.

Table 4.1 Number of Companies and Sales People Agreed to Participate in the Engineering and Pharmaceutical Sector

	Engineering C	<u>ompanies</u>	Pharmaceutical Co	mpanies
	Number of Companies	Number of Sales People	Number of Companies	Number of Sales People
Medium-sized Companies	4	4	2	2
Large-sized Companies	4	9	1	2
Total	8	10	3	4

CUSTOMERS	Intermediates	Intermediates	Intermediates	Intermediates	Intermediates	Intermediates	Intermediates	Intermediates
PRODUCTS SOLD	Tools & Engineering Equipment	Tools & Engineering Equipment	Tools & Engineering Equipment	Plastics	Plastics, Steel & Specialised Products	Building Products	House Accessories	Engineering Materials
SALES REPS	17	14	11	7	56	41	34	26
PERSONNEL	97	86	65	56	460	300	250	250
COMPANIES	1 <sup>st</sup> Medium	2 <sup>nd</sup> Medium	3 <sup>rd</sup> Medium	4 <sup>th</sup> Medium	1 <sup>st</sup> Large	2 <sup>nd</sup> Large	3 <sup>rd</sup> Large	4 <sup>th</sup> Large

Table 4. 2 Characteristics of Engineering Companies

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CUSTOMERS	Intermediates	Intermediates	Intermediates
PRODUCTS SOLD	Health Care Products	Health Care Products	Medicines & Health Care Products
SALES REPS	12	3	85
PERSONNEL	87	22	430
COMPANIES	1 <sup>st</sup> Medium Company	2 <sup>nd</sup> Medium Company	1 <sup>st</sup> Large Company

Table 4.3 Characteristics of Pharmaceutical companies

 Table 4. 4 Characteristics of Sales People in the Engineering and Pharmaceutical

 Sector

Engineering Companies

**Pharmaceutical Companies** 

Female/Male	Male	Male		
Average Work Per Week	45 Hours	45 Hours		
Average Company Tenure	8 Years	8 Years		
Average Experience in Current Sales Job	7 Years	7 Years		
Overall Sales Experience	18 Years	18 Years		
Average Age of Sales People	35-50 Years Old	35-50 Years Old		
Sales People Education	College and Tertiary Education	College and Tertiary Education		

# CHAPTER 5 - RESULTS AND DISCUSSIONS

# 5.1 Introduction

This chapter describes the discussions made after the personal interviews with sales people. Personal semi-structured interviews with sales people gave us accurate information on the variables affecting the sales force decision to adopt new products. With the interviews with sales representatives a comprehensive conceptual framework was constructed. It depicts the factors that positively or negative influence the sales force new product adoption. In addition, in the interviews item scales were developed. In some cases interviewees confirmed items found in the academic literature. In other cases new items were developed by the respondents.

The current chapter discusses each category of variables of the conceptual framework of the study (Figure 3.1) separately. First, the findings of the category of new product factors (Figure 3.2) are presented. Then, the findings of the category of organisational factors (Figure 3.3) follow. After that discussions of the category of sales managers' factors (Figure 3.4) are presented. Then, discussions of the category of sales force factors (Figure 3.5) are presented. Lastly, the chapter describes the findings of the category of the environmental factors (Figure 3.6).

In each category of variables, the discussion begins with the description of each variables included. These are the independent variables. Then the discussion continues with the relationship between each independent variable and the dependent variable, which is the sales force new product adoption. Sales people cited the negative or positive relationship of each independent variable with the dependent variable of the study. After that, discussions are made on the scales that have been constructed for each variable. Each scale incorporates items. In some cases, items have been developed in the interviews with sales people. In other cases, sales people confirmed items that have been found in the academic literature.

After the completion of the discussions for each category of variables of the conceptual framework of the study (Figure 3.1), general discussions are made. After that the conclusion of this chapter is presented.

#### 5.2 Analysis of data from qualitative interviewing

The discussion of data analysis makes the assumption that the researcher has available full transcripts of interviews. Difficult and time-consuming though transcription is, there really is no satisfactory alternative to recording and fully transcribing qualitative research interviews (Cassell and Symon 1995). Miller and Crabtree (1992) provide a useful framework for summarising the various approaches to data analysis. They propose four main approaches into which individual analytical techniques can be categorised:

- 1. Quasi-statistical,
- 2. Template,
- 3. Editing, and
- 4. Immersion/Crystallisation.

Quasi-statistical seeks to turn the textual data into quantitative data which can be manipulated statistically. The approach is best illustrated in the technique of content analysis (Weber 1985). The content analysis selects a suitable unit of measurement – single words, phrases or themes – and then categorises each unit found. Statistical analysis can then be carried out comparing individuals or groups on the distribution of units across categories.

In the template approach, text is analysed through the use of an analysis guide, or codebook (Miller and Crabtree 1992), consisting of a number of categories or themes relevant to the research question(s). In this it is similar to classical content analysis. Where it differs – and what makes it a truly qualitative approach – is in two characteristics. First, the codebook is revised, perhaps many times, through exposure to

the textual data. Second, the pattern of themes emerging is interpreted qualitatively, rather than statistically.

Editing is explained as follows: This style is termed editing because the interpreter enters the text much like an editor searching for meaningful segments, cutting, pasting and rearranging until the reduced summary reveals the interpretive truth in the text (Miller and Crabtree 1992).

In the immersion/crystallisation approach researchers immerse themselves in the research subject over a prolonged period of time, and produce an account of their findings through analytical reflection and intuitive crystallisation of meaning (Cassell and Symon 1995).

The current review employed personal semi-structured interviews with sales people. Interviews with sales people included two stages, which are presented below:

- The first stage included discussions on the most important factors that would motivate sales people to adopt new products. In this stage, respondents were not presented with the conceptual framework developed by the researcher of the current study. The purpose of this was to avoid the interviewer bias, and
- 2. The second stage included discussions on the conceptual framework developed by the researcher. In this stage, respondents had to comment on the variables, which were found in the academic literature.

In the first stage, sales representatives cited the variables affecting their decision to adopt new products. These variables coincided with the variables found in the academic literature. In the second stage, respondents talked in detail about these variables. They described the variables so that item/scales could be developed. Also, respondents cited the negative or positive influence of each variable on their decision to adopt new products. Despite having transcripts from tape-recording, the current review has not used any of the previously mentioned analytical techniques. The reason for this was that the current study only sought: (1) to refine the conceptual framework of the study, and (2) to generate an initial pool of scale items. Also, the current review did not intend to carry out quantitative study. Thus, the researcher followed a simple procedure in analysing the data. For example, after an interview was completed the data were compared with that of previous interviews. At this time similarities and differences were identified within each interview to establish replications, which allowed the identification of patterns of behaviour and attitude as far as the variables of the adoption of new products by the sales force concern.

### 5.2.1 Discussions on the New Product Factors

# The Variable of Relative Advantage of New Products

All 14 interviewed sales people stated that when the new product was of relative advantage they would be willing to adopt it.

Respondents gave some descriptions on the relative advantage of the product, which are presented below.

"A product is relative advantageous when it offers unique benefits to their customers".

The above statement is in line with the finding of Atuahene-Gima (1995).

Other statements are as follows:

"A product is advantageous when it can solve problems that we as sales representatives, have encountered with old products of the firm". "A new product is advantageous when it can solve problems that customers have faced with previously introduced products of the firm". "A product has an advantage when it reduces costs".

Rogers (1995) has found that a new product is advantageous when it has low initial cost.

Other respondents stated the following:

"A new product is relative advantageous when it has an improved performance over previously introduced ideas".

Another issue which all 14 respondents gave emphasis on was the relative advantage of the new product compared with the competitors' products. They stated the following:

"New products have to be of better quality compared with competitors' products". If this is the case, we will definitely be motivated to adopt new products".

The above is in line with the academic literature. The product has an advantage when it provides higher quality than competition. Sales people will be motivated to adopt new products when the quality of their products is higher than competitors' products (Atuahene-Gima 1995). It was understood from the above statements that sales people would be willing to adopt new products when they were relative advantageous.

#### Proposition for Relative Advantage of New Products

**P1:** The greater the relative advantage of new products, the greater the adoption of new products by the sales force.

Interviewed sales people stressed the importance of relative advantage of a new product. This product attribute positively affects their decision to adopt new products. This is in line with the findings of diffusion scholars, (Frambach 1993; Rogers 1995) who have
found that relative advantage positively affects the decision of consumers and/or organisations to adopt new products. Hence, sales people stated that the greater the relative advantage of the new product, the greater the adoption of the new product by the sales force.

## Scale of Relative Advantage of New Products

The items for the relative advantage of new products are depicted in table 5.1. The first item was developed from the interviews with sales people. Atuahene-Gima (1995) has also examined this item in past research. The interviewees developed the second item. The third item was developed from the interviews, too. It is also found in the academic literature by Rogers (1995). The fourth item is also exploratory; interviewed sales people have created it. Sales people created the fifth item, too. The same item was also used by Atuahene-Gima (1995).

## Table 5.1 The Scale of the Relative Advantage of New Products

Scale Items	Source	
1. The new product offers unique benefit	Exploratory, Atuahene-Gima (1995)	
2. The new product solves problems <b>Ex</b>	ploratory	
3. The new product reduces costs <b>Explo</b>	ratory, Rogers (1995)	
4. The new product has an improved products <b>Exploratory</b>	performance compared with the old	
5. The new product provides higher Exploratory, Atuahene-Gima (1995)	quality than competitors' product	

### The Variable of Compatibility of New Products

All 14 sales representatives favoured the compatibility of new products.

They made some statements on the compatibility of new products, which are presented below:

"A new product has to appeal to ourselves as well as to customers".

They explained the above statement by saying that a new product has to be suitable with their personality. Otherwise, they will not be able to adopt it. Sales representatives described further the phrase suitability with their personality by giving some examples. They said that some products have deeper psychological meaning or in other cases some products made them happier than other. In addition, respondents claimed that the new product has to match the personality of their customers, too.

The previous statement is in line with the academic literature. Authors, in order to describe the term compatibility used the phrase of the suitability of electronic shopping with the personality of consumers (Verhoef and Langerak 2001).

Sales people also described compatibility in terms of adaptation of the new product. This is in line with Verhoef and Langerak (2001), which noted that electronic shopping is compatible when it requires few adaptations in the personal life of consumers.

Respondents stated the following:

"By adaptation we mean that the new product has to be included into our everyday life. In other words, the new product has to be easily adapted. This way we will be motivated to adopt it". "The new product is compatible when it is sold in various outlets, thus easing purchase for final consumers. In other words, the new product has to be accessible. We will be motivated to adopt new products knowing that final consumers will easily find them in the shops".

Research has found that when a new product is compatible with previously introduced products, consumers will be willing to adopt it. Also, it has been examined that when a new product is compatible with customers' needs for the innovation, customers will be willing to adopt it (Rogers 1995). Interviewees made similar statements that are presented below:

"A new product is considered compatible when it is compatible with previously introduced products. When we are being asked to adopt new products, which are compatible with products that we have already dealt with, we will be motivated to adopt them".

"A new product is compatible with customers' needs for the innovation. If new products are what customers need, we will be motivated to adopt them".

The above statements showed that compatibility would positively motivate sales people to adopt new products.

### Proposition for Compatibility of New Products

**P2:** The greater the compatibility of new products, the greater the adoption of new products by the sales force.

Interviewed sales people stated that the new product compatibility is an important product attribute. Thus, it is a factor that will positively affect their decision to adopt new products. Frambach (1993), Rogers (1995), among others, have found that compatibility is an important determinant in influencing the decision of consumers and

in other researches, organisations to adopt new products. Thus, sales people stated that the greater the compatibility of new products, the greater the adoption of new products by the sales force.

#### Scale of Compatibility of New Products

The items for the compatibility of new products are depicted in table 5.2. Interviewed sales people developed the 5 items of the scale. Rogers (1995) also has examined the fourth and fifth items.

## Table 5.2 The Scale of the Compatibility of New Products

#### Scale Items

Source

- 1. The suitability of the new product; the new product has to appeal to customers and to sales people **Exploratory**
- The adaptation of the new product; the new product has to be included into everyday life Exploratory
- 3. The accessibility of the new product; the new product must be sold in various outlets to ease purchase **Exploratory**
- 4. The new product is compatible with previously introduced products Exploratory, Rogers (1995)
- The new product is compatible with customers' needs for the innovation Exploratory, Rogers (1995)

#### The Variable of Complexity of New Products

Most sales representatives stated that complexity of new products give them the motivation to adopt them.

Respondents gave some statements regarding the complexity of new products, which are presented below:

A sales person stated:

"A product is complex when it is difficult to use. A new product may encompass new technology, which means that we would have to learn about this new technology. This could create difficulties to us. However, if we realise that these new technological products would assist in making our job quicker, we will be willing to adopt them".

Then, the interviewee went on by giving an example.

"Some years ago, sales people went out to the market without laptop computers. Nowadays everyone has one and we are satisfied. Although, we had opposed this new technology at the beginning, we then started to appreciate the benefits that laptop computers brought to our selling job".

Other respondents stated the following:

"A confident sales person is not daunted by the complexity of new products".

"A sales person with learning orientation would definitely adopt the complex new products. "Sales people with learning-oriented personality always want to learn anything that is new or considered complex".

In the academic literature, Dweck et. al. (1988; 1989; 1992) stated that when a task is approached from a learning goal orientation, individuals strive to understand something new or to increase their level of competence in a given activity.

Other sales people said the following:

"In cases where we had to face a complex product training assisted us to overcome problems associated with the complexity of the new product. Sometimes, our sales managers give us pecuniary incentives in order to sell complex products".

"We like to solve problems that customers, sometimes, encounter. In doing so, we feel fulfilled. It is more so when a new product is complex. We are the ones to help customers to solve problems associated with the complex nature of any new product. So, product complexity is not an obstacle for new product adoption".

"A complex product might be preferable, because it is challenging to sell complex products".

The above statement of sales people opposed the finding by Bello and Gilliland (1997), which found that distributors engaged in opportunistic behaviours when selling complex products. Also, Rogers (1995) found that in most cases new product complexity negatively affected the decision of consumers to adopt new products. Frambach (1993) suggested that product complexity negatively affected the decision of organisations to adopt innovations. However, other authors have found that product complexity did not have a negative impact on new product selling performance (Hultink, Atuahene-Gima, and Lebbink 2000). Thus, sales people will be willing to adopt complex new products.

## Proposition for Complexity of New Products

**P3:** The greater the complexity of new products, the greater the adoption of new products by the sales force.

As seen from the discussion on new product complexity, it is obvious that this product attribute does not have a negative effect on the decision of the sales force to adopt new products. Contrary to the findings of diffusion scholars (Frambach 1993; Rogers 1995), who have found a negative relationship between the complexity of new product and the rate of adoption, interviews with sales people showed that product complexity would motivate sales people to adopt new products. Interviewed sales people said that product complexity positively affected their decision to adopt new products.

## Scale of Complexity of New Products

The items for the complexity of new products are depicted in table 5.3. Interviewed sales people confirmed the 2 items that have been examined in the academic literature (Hultink, Atuahene-Gima, and Lebbink 2000).

### Table 5.3 The Scale of the Complexity of New Products

## Scale Items

Source

- The new product is sophisticated Confirmed, Hultink, Atuahene-Gima, Lebbink (2000)
- 2. The new product is highly technical Confirmed, Hultink, Atuahene-Gima, and Lebbink (2000)

#### 5.2.2 Discussions on the Organisational Factors

#### The Variable of Firm's Commitment to Innovations

For the variable of the firm's commitment to innovations, most sales people stated that commitment of the firm to innovations is an important factor affecting their decision to adopt new products.

Sales representatives gave statements regarding the firm's commitment to innovations. These statements are the following:

"Commitment of the firm to innovations signals to employees the importance the company attaches to research and development. This is important in positively affecting our decision to adopt new products".

"Firms committed to innovations are the ones, which spend a lot of time and money in developing new products".

"Firm's commitment to innovations is when a firm has put talent and resources behind getting top performing new products".

In the academic literature, Atuahene-Gima (1997) stated that firm's commitment to innovations signals to employees about the value and importance the company attaches to new product development.

Other sales people stated the following:

"Sales people feel proud as well as confident knowing that their company is innovative".

"We will be motivated to adopt new products when we know that the firm is committed to innovations".

The previous statements showed that sales people adopt new products when their firms are committed to innovations.

#### Proposition for Firm's Commitment to Innovations

**P4:** The greater the sales person's perceived commitment of the firm to innovations, the greater the adoption of new products by the sales force.

As seen from the discussions on firm's commitment to innovations sales people said that it is important for the firm to be committed to innovations. Firm's commitment to innovations has a positive effect on the decision of the sales force to adopt new products because it shows to sales people the importance the firm attaches to innovations. It has been found that firm's commitment to innovations positively affected the decision of the sales force to adopt new house brands (Anderson and Robertson 1995). Sales people stated that the greater the firm's commitment to innovations, the greater the adoption of new products by them.

#### Scale of Firm's Commitment to Innovations

The items for the firm's commitment to innovations are depicted in table 5.4. The first 4 items were developed from the interviews with sales people. Sales people confirmed the rest 3 items developed by Anderson and Robertson (1995).

## Table 5.4 The Scale of the Firm's Commitment to Innovations

# **Scale Items** Source 1. My firm has invested a lot of time and money in new products Exploratory 2. The firm simply has not put enough talent and resources behind getting topperforming new products Exploratory 3. Developing new products are not one of the highest priorities in this company Exploratory 4. My firm carefully researches and develops its new products before introducing them Exploratory 5. My firm is going all out to push products that bear the company name Confirmed, Anderson and Robertson (1995) 6. The firm is very serious about developing and marketing its own proprietary **Confirmed, Anderson and Robertson (1995)** products 7. Management makes noise about selling proprietary products, but they have not put much firepower behind developing them Confirmed, Anderson and Robertson (1995)

## The Variable of Marketing Orientation

All interviewed sales people said that marketing orientation is important in their organisation. They stated that marketing orientation will positively influence their decision to adopt new products.

Sales representatives made some statements on the marketing orientation and its effect on their decision to adopt new products. These statements are presented below: "A company cannot survive when it is not marketing oriented".

"By being marketing oriented companies create products that are what customers want. This would help us adopt new products because we would know that consumers would also adopt them".

"Marketing oriented companies select information on their customers. By learning about the customers effective targeting could be achieved. This would have a positive affect on our decision to adopt new products".

"Marketing oriented companies select information on its competitors. They can learn about their strengths and weaknesses. Then, these companies would differentiate its own products by building product positioning and image. This would positively influence our decision to adopt new products".

"How could sales people not be positive to adopt new products when they know that their company is knowledgeable of its customers as well as its competitors"?

The previous view was the same among all sales people that were interviewed for the purpose of this study.

Another respondent stated the following:

"In today's volatile markets, companies must be able to adapt to their markets. Firms will achieve this when they are marketing oriented. Knowing that our firm makes changes in order to adapt to the new environments, we will be positive to adopt new products".

The above statements on marketing orientation gave an understanding of the importance of marketing on the decision of sales people to adopt new products.

## Proposition for Marketing Orientation of the Firm

**P5:** The greater the marketing orientation of the firm, the greater the adoption of the new products by the sales force.

Sales people stated that it is important for the firm to be marketing-oriented. Marketing orientation of the firm will positively affect their decision to adopt new products because companies will have carefully researched and created new products that would be acceptable to consumers. Gatignon and Robertson (1985) have proposed that marketing activities of the firm play an important role in influencing customers to adopt new products. Sales people stated that the greater the marketing orientation of the firm, the greater the adoption of new products by the sales force.

## Scale of Marketing Orientation of the Firm

Items for the marketing orientation as attitude are depicted in table 5.5. Interviewed sales people confirmed all 15 items found in the academic literature (Hooley, et. al., 1990; Avlonitis and Gounaris 1997; 1999). Items for the marketing orientation as behaviour are depicted in table 5.6. In this case again, interviewed sales people confirmed all 3 items found in the academic literature (Kohli and Jaworski 1990; Avlonitis and Gounaris 1997; 1999).

#### Table 5.5 The Scale of the Marketing Orientation as Attitude

#### Scale Items

Source

- 1. Intelligence on competition Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)
- 2. Adapt to the market Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)
- 3. Market analysis Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1999)
- 4. Promoting Products Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)
- 5. Supporting sales Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)
- Confined in sales and marketing department Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)
- The marketing concept is not existent Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)
- 8. A confusing concept Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)
- Design and production management Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1999)
- Decisions on quality and quantity Confirmed, Hooley, et. al., (1990);
  Avlonitis and Gounaris (1997; 1999)
- Build customer relations Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)
- 12. Maintain customer contacts Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)
- Satisfy customers' needs Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)
- 14. Build product positioning and image Confirmed, Hooley, et. al., (1990);

Avlonitis and Gounaris (1997; 1999)

15. A company culture Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

## Table 5.6 The Scale of the Marketing Orientation as Behaviour

## Scale Items

Source

- 1. The degree of market intelligence collection **Confirmed**, Kohli and Jaworski (1990); Avlonitis and Gounaris (1997; 1999)
- The degree of company-wide dissemination of the intelligence Confirmed, Kohli and Jaworski (1990); Avlonitis and Gounaris (1997; 1999)
- The degree of responsiveness to the market intelligence gathered Confirmed, Kohli and Jaworski (1990); Avlonitis and Gounaris (1997; 1999)

## 5.2.3 Discussions on the Sales Managers' Factors

#### The Variable of Training

All interviewed sales people said that training is an important variable. They stated that when they get training, they are motivated to adopt new products.

Respondents stated the following:

"We all get training when the company introduce new products. Even the bestperforming sales people cannot achieve their goals if they are not trained. Training gives us the opportunity to master new skills needed so that we can adopt new products".

"Training is important in order to learn the features of new products. Training will help us learn solve problems that we might have with the new introductions. This will boost our confidence to adopt and thus sell new products".

"With training we learn about the technical characteristics of new products. This will have a positive affect on our decision to adopt new products because by this we can solve customers' problems and answer their queries".

"In training sessions, we are given materials to read and guidelines that would help us draw the right direction to accomplish our task. The sales education we receive on the introduction of new products will positively affect our decision to adopt them".

"With training we overcome the difficulties associated with new products".

"Training will motivate us to put the effort and be committed to the new product because we will have developed high new product specific knowledge". Authors have found that a sales person's long-term motivation comes from the commitment to and pride in doing one's job (Chonko, Enis, and Tanner 1992). Equally, interviewed sales people stated the following:

"First-class training programme represents a critical step in instilling commitment and pride to our job. We will be committed to sell new products. Certainly, training encourages adoption of new products".

From the above statements, it is understood that training will positively affect sales people to adopt new products.

#### **Proposition for Training**

**P6:** The greater the training of the sales person, the greater the adoption of new products by him/her.

As seen from the discussions on training, sales people give emphasis on their training. Training helps sales people to learn about the new product. This knowledge base will motivate them to adopt new products. This is in line with the finding by Anderson and Robertson (1995). The aforementioned authors found that training had a positive effect on the decision of the sales force to adopt house brands. Interviewed sales people stated that the greater the training received the greater the adoption of new products by them.

## Scale of Training

The items for training are depicted in table 5.7. Interviewed sales people developed all 3 items of this scale.

## Table 5.7 The Scale of Training

#### Scale Items

Source

- I received substantial training before I assumed responsibility for selling new products
  Exploratory
- 2. I have spent a significant amount of time in training for new products

#### Exploratory

3. Our training programme for new products is first class

Exploratory

## The Variable of Feedback

For the variable of feedback, most respondents stated that when they get feedback from their supervisors they get motivated to adopt new products.

Sales people made the following statements:

"Feedback is an important mechanism. It creates positive outcomes. By receiving feedback from our sales managers, we learn a great deal on how well we are doing, which in turn will help us improve our performance".

"Feedback in general shows support for sales people. Support is important particularly when sales people are called to adopt and sell new products. Support shows that sales managers understand the difficulties concerning the selling of new products. This understanding motivates sales people to adopt new products".

The previous is in line with the findings of Sujan (1986; 1994), which found that giving feedback sales managers show support to sales people.

Other sales people stated the following:

"Positive feedback will give us the motivation to continue with the selling of new products. Negative feedback will give us the strength to improve our selling skills".

"Sales managers give feedback on the procedures so as to help us accomplish our goals. Feedback is a way of learning. We will be willing to try new products, since we know that we will learn from the feedback we receive from sales managers. Thus, feedback will motivate us to adopt new products".

It was understood that sales representatives would adopt new products when they got feedback from their sales managers.

#### Proposition for Feedback

**P7:** The greater the feedback giving to the sales person, the greater the adoption of new products by the sales person.

Hultink, Atuahene-Gima, and Lebbink (2000), found that feedback had a positive effect on new product selling performance. Sales people stated that feedback from supervisors would positively affect their decision to adopt new products. The rationale is that with feedback from their supervisors, sales people know how to perform. They learn about the direction, which has to be followed. Sales people will be able to achieve the goals of the new product. Feedback will lead to the adoption of new products by the sales force. Sales people stated that the greater the feedback, the greater the adoption of new products by them.

## Scale Items for Feedback

The items for feedback are depicted in table 5.8. Interviewed sales people confirmed all 6 items found in the academic literature. The first 4 items were examined by Teas, et. al., 1979; Teas 1983; Singh 1993. The fifth and sixth items were examined by Sims, et. al., 1976; Agarwal and Ramaswami 1993.

## Table 5.8 The Scale of Feedback

## Scale Items

## Source

1.	I receive enough information from my supervisor about my job performance
	Confirmed, Teas, et. al., 1979; Teas 1983; Singh 1993
2.	I receive enough feedback from my supervisor on how well I am doing
	Confirmed, Teas, et. al., 1979; Teas 1983; Singh 1993
3.	There is enough opportunity in my job to find out how I am doing
	Confirmed, Teas, et. al., 1979; Teas 1983; Singh 1993
4.	I know how well I am performing on my job
	Confirmed, Teas, et. al., 1979; Teas 1983; Singh 1993
5.	I receive feedback from my supervisor on the procedures I use to accomplish
	my goals
	Confirmed, Sims, et. al., 1976; Agarwal and Ramaswami (1993)
6.	Information about how my performance will be evaluated has been directly
	communicated to me
	Confirmed, Sims, et. al., 1976; Agarwal and Ramaswami (1993)

## The Variable of Behaviour-Control System

All interviewed sales people stated that behaviour-control system is an important variable in influencing their decision to adopt new products.

Respondents stated the following on the variable of behaviour-control system:

"Behaviour-control system is supportive and that this would positively affect our decision to adopt new products".

"Sometimes, sales managers monitor the behaviour of sales people, by spending time with them in the field. They also make joint calls with sales people. All these activities are very important, for the psychological support. When the firm introduces new products, sales people need this kind of support. This will definitely motivate sales people to adopt new products".

"Sales managers modify the procedures when desired results from the selling of new products are not met. This is helpful. By this we can have positive new product selling outcomes".

"We certainly, want to work close together with our sales managers. We feel as being part of a team".

Indeed, in the academic literature, authors have found that behaviour control system was associated with more team cooperation (Anderson and Oliver 1987; Cravens, et. al., 1993).

Other respondents made the following statements:

"Sales managers evaluate the profit contribution we have made to the company as well as the sales results achieved by us. This motivates us to try to achieve more. When we achieve more, we feel satisfied because we get recognition from our colleagues".

Authors have found that with behaviour control system the intrinsic motivation as well as the motivation for peer recognition was higher (Piercy, Cravens, and Morgan 1998).

Other sales people said the following:

"Sales managers evaluate the quality of sales presentations. Sales people must know how to present new products so that they can attract customers. Sales people must also know how to present themselves".

"We must be professionals. When sales managers follow the procedures of the behaviour control system, they also evaluate our professional development. This is beneficial. It helps develops our career as sales people".

"When we follow the directions set from our sales managers, we are confident that we will achieve the goals of new products. The specified procedures that we have to follow reduce performance risks. This will motivate us adopt new products".

"Generally, we are highly independent in our attitudes and actions. Employing the behaviour-control system, sales managers monitor our behaviour. However, this will not have a negative influence on our decision to adopt new products".

It was understood that sales people were not unhappy with the close supervision they got from their sales managers when the behaviour-based control system was employed. They did not feel that the behaviour control system limited their independence. The above statements showed that behaviour-control system would motivate them adopt new products.

## Proposition for Behaviour-Control System

**P8:** The greater the degree to which a sales control system is behaviour-based, the greater the new product adoption by the sales force.

Authors have found that behaviour-control system strengthens the positive effect of sales force new product adoption on selling performance (Hiltink and Atuahene-Gima 2000). Under this control system, sales people can achieve high sales, create new accounts and increase market share (Piercy, Cravens, and Morgan 1998). From the interviews that have been conducted with sales people, it became clear that behaviour-control is a system, which motivates sales people. This control system will lead to the adoption of new products by the sales force. Hence, sales people stated that the greater the behaviour-control system, the greater the adoption of new products by the sales force.

#### Scale of Behaviour-Control System

The items for behaviour-control system are depicted in table 5.9. Interviewed sales people confirmed all 7 items found in the academic literature (Jaworski and MacInnis 1989; Hultink and Atuahene-Gima 2000).

## Table 5.9 The Scale of Behaviour-Control System

## Scale Items

## Source

1.	My supervisor monitors the extent to which sales people follow established
	procedures pertaining to the new product
	Confirmed, Jaworski and MacInnis 1989; Hultink and
	Atuahene-Gima (2000)
2.	My supervisor modifies my procedures when desired results are not obtained
	Confirmed, Jaworski and MacInnis 1989; Hultink and
	Atuahene-Gima (2000)
3.	My supervisor evaluates the procedures sales people use to accomplish the
	task of selling this new product
	Confirmed, Jaworski and MacInnis 1989; Hultink and
	Atuahene-Gima (2000)
4.	My supervisor evaluates the quality of sales presentations made by me
	Exploratory
5.	My supervisor evaluates my professional development
	Exploratory
6.	My pay increases and other tangible rewards depend on how well I follow laid-
do	wn sales procedures pertaining to this new product
	Confirmed, Jaworski and MacInnis 1989; Hultink and
	Atuahene-Gima (2000)
7.	My pay increases and other tangible rewards depend on my knowledge of
1	specific procedures and practices in selling this new product

Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

## The Variable of the Outcome-Control System

All interviewed sales people posited that outcome-control system would motivate them to adopt new products. Sales people mentioned that for every product, either old or new, their sales managers set targets. However, this was not something that could negatively influence their decision to adopt new products.

In the academic literature, Atuahene-Gima (1997) proposed that outcome-control system would have a negative effect on the decision of the sales force to adopt new products. The argument is that with outcome-control system sales people are loaded with performance risks because they will be the ones responsible for outputs. However, this was not the case with interviewees. As we can see from the statements below, respondents were positive towards the outcome-based control system.

Sales representatives stated the following:

"We do not have any problem when our sales managers set outcome targets. We are confident that we will reach and even exceed the outcome targets. In addition, the outcome-control system gives us the opportunity to experiment and to take advantage of the opportunities in the markets.

"Under the outcome-based control system we have the discretion to work as we like and make our own decisions concerning the selling of new products. Independence motivates us to work harder".

"We know that if we do not achieve the specified output we would have sanctions from our sales managers. Hence, we try to achieve as much as we can".

"When we exceed our performance, under the outcome-control system, we get rewarded. This is something that motivates us to work harder". "When sales managers set targets for new products, we just take risks".

From the previous statements, it is understood that sales people do not consider outcome-control as a system that would hinder their decision to adopt new products.

#### Proposition for Outcome-Control System

**P9:** The greater the degree to which the sales control system is output-based, the greater the new product adoption by the sales force.

From the interviews it was understood that sales people were not daunted with the establishment of specific performance goals that sales people will have to achieve. Hultink and Atuahene-Gima (2000) found that outcome-control system strengthened the sales force new product adoption and selling performance relationship. That means that when sales people adopt new products perform well under the outcome control system. Sales people will be willing to adopt new products even in the case of having to take the responsibility of the output on their own. Hence, sales people stated that the greater the outcome-control system, the greater the adoption of new products by the sales force.

#### Scale of Outcome-Control System

The items for outcome-control system are depicted in table 5.10. Interviewed sales people confirmed all **6** items found in the academic literature (Jaworski and MacInnis 1989; Hultink and Atuahene-Gima 2000).

## Table 5.10 The Scale of Outcome-Control System

### Scale Items

Source

- Specific performance goals are established for my job Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)
- 2. Performance evaluations of sales people on this new product place primary weight on results **Confirmed**, **Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)**
- 3. My pay increases and other tangible rewards depend on the degree to which I have achieved specified output regardless of whether sales procedures were followed or not Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)
- If my performance goals for this new product were not met, I would be required to explain why Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)
- My pay increases and other tangible rewards depend on how my performance compares with the goals for this new product Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)
- My pay increases and other tangible rewards depend on the degree to which I have achieved the goals set for this product Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

## 5.2.4 Discussions on the Sales Force Factors

### The Variable of Sales Force Career Success

All interviewees favoured career success of sales people. They posited that career successful sales people are motivated to adopt new products.

Sales people made some statements regarding the variable of career success of sales people. These are presented below:

"Sales people feel successful when they get high earnings. New products offer new opportunities and they could increase sales people's earnings. Successful sales people will be motivated to adopt new products".

"By selling new products, sales people could gain reputation in the organisation. Sales people with reputation are career successful. Reputable sales people will definitely adopt new products".

"New products could offer sales people prestige. The rationale is that because of the newness that new products encompass, are much harder to sell than existing ones. Successful sales people strive to gain prestigious accounts. The selling of new products could lead to making a prestigious account. These sales people would be motivated to adopt new products".

"Career successful sales people are more confident compared to their less successful colleagues. Confidence motivates them to embark on new activities, such as the selling of new products".

"Career successful sales people consider challenging to sale new products. The challenging work will motivate these sales people to want to take the responsibility and

initiative to try and to experiment new things. Thus, successful sales people will not hesitate to adopt new products".

"New products could integrate new technology, which is difficult to understand and use. Career successful sales people are satisfied when they can overcome problems related to the new technology. Hence, they will be motivated to adopt these technologically new products".

"Career successful sales people like to be seen as an example and this alone motivates them to adopt new products".

"Sales people with career success have high expectations, so they do not settle with the selling of old products. They expect more from their career, they want to have success and they believe that new products will make them have future success".

In the academic literature, it has been found that career successful sales people have high degree of self - value when selling and expect more successes in the future (Chowdhury 1993).

From the previous statements, it is obvious that career success of sales people positively motivates them to adopt new products.

## **Proposition for Sales Force Career Success**

**P10:** The greater the sales people career success the greater the adoption of new products by them.

Authors have found that career success motivates sales people to adopt new house brands (Anderson and Robertson 1995). From the interviews with sales people, it was understood that career successful sales people are more likely to be committed and expend effort to sell new products. These sales people want to add value to themselves by being successful. Adopting and selling new products is a great achievement because sales people need to learn new methods of selling. In addition, they have to face new customer expectations. Career successful sales people are the ones who can cope with these difficulties and they are happy to achieve success for themselves. Hence, sales people stated that the greater the career success of sales people, the greater the adoption of new products by them.

#### Scale of Sales Force Career Success

The items for sales force career success are depicted in table 5.11. The first 5 items were created from the interviews with sales people. Interviewees confirmed the sixth, seventh, and eight items that have been found in the literature (Anderson and Robertson 1995).

## Table 5.11 The Scale of Sales Force Career Success

#### Scale Items

Source

- 1. I am one of the highest earners in my firm Exploratory
- 2. I am gaining prestige accounts Exploratory
- 3. I like to be seen as successful Exploratory
- 4. I am happy when I overcome a technical problem Exploratory
- 5. I consider myself successful when I am satisfied with my job Exploratory
- 6. I am one of the most successful sales people I know

#### Confirmed, Anderson and Robertson (1995)

7. Other sales people see me as an example of how much money there is to be made in this business

## Confirmed, Anderson and Robertson (1995)

8. I make out all right, but I'm not in the top earnings' category in my firm

### **Confirmed, Anderson and Robertson (1995)**

## The Variable of Sales Force Experience

Most sales people expressed the view that experience, although important, hinders their decision to adopt new products.

Respondents made the following statements on the variable of experience:

"Experienced sales people could deal with the stress that the selling job creates".

"In the case of new products, experienced sales people could overcome the demands of new products".

The above two statements come in agreement with what was found in the academic literature (Behrman and Perreault 1984). The aforementioned authors found that more experienced sales people are more likely to deal successfully with the job-stress and extra demands brought on by the introduction of a new product.

Other sales people cited the following:

"However the merits of experience, experienced sales people will not be motivated to adopt new products".

"Experience plays an important role in selling". However, experience has negative impact on our decision to adopt and sell new products".

Experienced sales people could overcome difficulties that would otherwise not be able to deal with without having been in the sales function for many years".

"Experienced sales people can understand the selling situation and their customers better than their less experienced colleagues". Other respondents stated the following:

"With new products, sales people have to fulfil the new expectations of customers and sales managers. Experienced sales people will not be motivated to adopt new products".

"Experienced sales people have learned routines and are unwilling to change. In order to sell new products, sales people have to make changes in their selling techniques. Experienced sales people will resist the introduction of new products".

The previous statement comes in agreement with the findings on experience in the academic literature (Cron 1984; O'Hara, Boles, and Johnston 1991). The aforementioned authors argued that experienced sales people settle into routines that are difficult to change.

From the previous statements, it is understood that experience is not a factor that would positively influence sales people to adopt new products. Although experience helps sales people in their selling job in general, it does not help them when new products are introduced.

### Proposition for Sales Force Experience

**P11:** The greater the experience of sales people, the lower the adoption of new products by them.

Sales people stated that the greater the sales force experience, the lower the new product adoption by them. Authors have found that sales force experience hinders sales force adoption of house brands (Anderson and Robertson 1995). From the interviews with sales people it was understood that sales force experience will have a negative effect on the decision of sales people to adopt new products. Hence, sales people stated that the greater the sales force experience the lower the adoption of new products.

## Scale of Sales Force Experience

The items for sales force experience are depicted in table 5.12. Interviewed sales people confirmed the item of this scale that has been used in the academic literature (Hultink and Atuahene-Gima 2000).

## Table 5.12 The Scale of Sales Force Experience

#### Scale Items

Source

1. Number of years Confirmed, Hultink and Atuahene-Gima (2000)

## The Variable of Sales Force Learning Orientation

All respondents posited that learning-orientation leads to new product sales force adoption.

Sales representatives noted the following:

"It is very important to learn about new things in selling". We have to develop ourselves and to always expand our knowledge. We must continually improve our skills in selling. Otherwise, we will not be able to compete in today's volatile markets".

"Learning oriented sales people are eager to learn from each selling experience". They want to become better sales people. This is of great importance to them".

"Learning orientated sales people want to learn new approaches for dealing with customers".

"New products require changing the selling methods. Sales people, who always want to learn, would not encounter any problem when the firm introduces new products. They will definitely adopt new products".

"New products offer many challenges to us because we have the opportunity to meet with new customers and form new relationships with them. Learning-orientated sales people are happy with doing challenging work. These sales people will be motivated to adopt new products".

"Learning orientated sales people are positive in adopting new products. These sales people are not daunted by failure. They consider failure as an opportunity to learn".

"Learning orientated sales people strongly believe that people can accomplish whatever they set out to accomplish. So, they take risks and they adopt new products".

"Because learning orientated sales people like to learn anything that is new, they will also be eager to learn about new products. These sales people will develop new sales strategies without being fearful of failure".

"Sales people with the tendency to learn consider unchallenging to sell existing products".

The previous quote comes in agreement with the academic literature (Button, Mathieu, and Zajac 1996). The aforementioned authors argued that sales people with learning orientation find the selling of new products boring and unchallenging.

From the above statements, it was understood that learning orientation has positive influence on sales people decision to adopt new products.

## Proposition for Sales Force Learning Orientation

**P12:** The greater the learning orientation of the sales force, the greater the adoption of new products by them.

As seen from the discussions above, sales people emphasised the importance of learning-orientation. It was understood that learning-oriented sales people are positive in adopting new products. Atuahene-Gima (1997) has proposed that learning orientation of sales people positively affects the decision of the sales force to adopt new products. Interviewed sales stated that learning orientation of sales people positively affects their decision to adopt new products.

## Scale of Sales Force Learning Orientation

The items for sales force learning orientation are depicted in table 5.13. Interviewed sales people confirmed all 11 items found in the academic literature. The first, second, third and fourth items, were examined by Sujan, et. al., (1994); Kohli, et. al., (1998). The fifth and six items were examined by Kohli, et. al., (1998). The seventh item was examined by Sujan, et. al., (1994); Button, et. al., (1996). The eighth, ninth, tenth and eleventh items were examined by Button, et. al., (1996).

## Table 5.13 The Scale of Sales Force Learning Orientation

### Scale Items

#### Source

- There really are not a lot of new things to learn about selling Confirmed, Sujan, et. al., (1994); Kohli, et. al., (1998)
- 2. It is worth spending a lot of time learning new approaches for dealing with customers **Confirmed**, **Sujan**, et. al., (1994); Kohli, et. al., (1998)
- An important part of being a sales person is continually improving your sales skills Confirmed, Sujan, et. al., (1994); Kohli, et. al., (1998)
- It is important for me to learn from each selling experience I have Confirmed, Sujan, et. al., (1994); Kohli, et. al., (1998)
- I put in a great deal of effort in order to learn something new about selling Confirmed, Kohli, et. al., (1998)
- Learning how to be a better sales person is of fundamental importance to me Confirmed, Kohli, et. al., (1998)
- The opportunity to do challenging work is important to me Confirmed, Sujan, et. al., (1994); Button, et. al., (1996)
- 8. When I fail to complete a difficult task, I plan to try harder the next time I work on it **Confirmed, Button, et. al., (1996)**
- I prefer to work on tasks that force me to learn new things Confirmed, Button, et. al., (1996)
- 10. When I have difficulty solving a problem, I enjoy trying different approaches to see which one will work **Confirmed**, **Button**, et. al., (1996)
- On most jobs, people can pretty much accomplish whatever they set out to accomplish Confirmed, Button, et. al., (1996)

#### 5.2.5 Discussions on the Environmental Factors

### The Variable of Competitive Intensity

Most sales representatives argued that competitive intensity would not discourage them to adopt new products.

Respondents made the following statements:

"When both the company and the sales force can take advantage of their strengths and potentials, competition will not be a threat".

"Strength of our company could be the quality of new products. If the company produces good quality products, competitive intensity does not threaten us".

"When our company produces new products that are relative advantageous compared to the competitors' products, we will definitely adopt these new products in competitive environments".

"When we know that our company can deliver on its promises to customers as well as faster than competitors, we will not be fearful of actions from competition. Speed of delivery is a strong point for a company. We will certainly be positive in adopting new products in competitive environments".

"We acknowledge that there are many suppliers, in highly competitive environments". This can induce stress to us because we have to try hard to satisfy our customers and make a sale. However, this does not have a negative effect on our decision to adopt new products".

"In a competitive market environment we are eager to sell even if there are many other companies offering similar products. It is a challenge to work in such an environment".
"We are satisfied that we can prove to ourselves and to our sales managers that we have the ability to make a sale, in competitive environments".

Authors have found that challenging work provides intrinsic satisfaction (Brown and Peterson 1994).

Other respondents stated the following:

"We must adopt new products in highly competitive markets. Otherwise, we will not be able to compete with sales people, working in rival companies. Non-adoption of new products, which are adopted by other sales people, will create a competitive disadvantage, for us and our company".

"In order to maintain the market position of our company, we have to adopt new products". Competitive intensity, positively affects our decision to adopt new products".

The previous is in line with the academic literature. Authors have suggested that in competitive markets innovation adoption may be necessary to maintain one's market position (Robertson and Gatignon 1986).

As it was understood from the above statements, in competitive environments, sales people are positive in adopting new products.

### Proposition for Competitive Intensity

**P13:** The greater the competitive intensity, the greater the adoption of new products by the sales force.

Interviewed sales people were positive in adopting new products in a highly competitive environment. Authors have found that higher levels of competition stimulate innovation adoption (Gatignon and Robertson 1989). Others have found that the higher the competitive intensity the higher the linkage between effort and satisfaction of sales people (Atuahene-Gima and Micheal 1998). Thus, sales people stated that the greater the competitive intensity the greater the adoption of new products.

## Scale of Competitive Intensity

The items for competitive intensity are depicted in table 5.14. Interviewed sales people confirmed all 6 items examined by Kohli and Jaworski (1993).

## Table 5.14 The Scale of Competitive Intensity

### Scale Items

### Source

- Competition in our industry is cutthroat Confirmed, Kohli and Jaworski (1993)
- There are many "promotion wars" in our industry Confirmed, Kohli and Jaworski (1993)
- Anything that one competitor can offer others can match readily Confirmed, Kohli and Jaworski (1993)
- Price competition is a hallmark of our industry Confirmed, Kohli and Jaworski (1993)
- One hears of a new competitive move almost every day Confirmed, Kohli and Jaworski (1993)
- Our competitors are relatively weak Confirmed, Kohli and Jaworski (1993)

## Competitive Intensity as Moderator of Career Success of Sales People

All sales people stated that career successful sales people like to demonstrate their skills and abilities in competitive environments. So, the relationship between the variables of career success and the sales force new product adoption will be stronger in environments with harsh competition.

Respondents made the following statements:

"Career successful sales people like to be seen as successful. This feeling is even stronger when they are faced with difficulties such as competing in intense market environments. These sales people will be even more motivated to undertake difficult tasks in intense competition".

"Career successful sales people are able to cope with any problem that arises. They can overcome the stress that a competitive market environment creates. They will certainly adopt new products in competitive environments".

"There is customer resistance in competitive environments because there are multiple suppliers offering similar products. However, sales people whose career has been professionally and financially well established can overcome the difficulties".

"It is understood that we must work harder to overcome the problems of the intense environments. Career successful sales people are happy to do this in competitive markets".

"In competitive market environments career successful sales people are happy to try hard to satisfy their customers. The positive relationship between career success of sales people and the decision to adopt new products will be stronger when we work in severe market conditions". "In competitive market environments career successful sales people have the opportunity to prove their ability. So, we try even harder to make a sale. In such market conditions, career successful sales people will be even more positive in adopting new products".

It was understood from the above statements that in competitive intensity, career successful sales people are stronger. In harsh market environments, these sales people are even more positive to adopt new products.

### Proposition of Competitive Intensity as Moderator

**P14:** The positive effect of sales people career success on their decision to adopt new products is stronger when competitive intensity is higher.

Competitive intensity adds greater pressure and uncertainty for sales people in selling new products (Maremont 1995). In competitive market environments the positive relationship between career success of sales people and their decision to adopt new products will be stronger. The rationale is that career successful sales people are confident of their ability. They do not hesitate to undertake new tasks (Atuahene-Gima 1997). Interviewed sales people stated that competitive intensity strengthens the positive relationship between career success of sales people and their decision to adopt new products.

## Scales of Competitive Intensity and Career Success

The items for career success and competitive intensity are depicted in tables 5.11 and 5.14 respectively.

## The Variable of Market Volatility

Most interviewed sales people noted that market volatility will not stop them from adopting new products. Volatile markets positively affected their decision to adopt new products.

Respondents stated the following:

"In a volatile market environment we have to be quick in responding to customers. We also have to be flexible in negotiating the terms of the sale. In doing so, we will not be fearful of the problems that the volatile market environment might create".

In the adoption of information technology literature, authors suggested that in uncertain market environments, companies must be responsive and flexible in information technology support (Chau and Tam 2000).

Other sales representatives made the following statements:

"Market volatility is characterised by instability, uncertainty, unpredictability, and rapid changes. However the problems, we feel fulfilled when we can survive in volatile markets".

"We are positive in adopting new products in volatile markets. When we have deep knowledge of our customers and competitors we can adapt to the rapidly changing needs that a volatile market creates. Thus, market volatility will not discourage us to adopt new products".

From the above statements, it is understood that market volatility will positively affect sales people decision to adopt new products.

## Proposition for Market Volatility

**P15:** The greater the market volatility, the greater the adoption of new products by the sales force.

Authors have found that market volatility was positively related to sales person's performance in selling new products (Hultink and Atuahene-Gima 2000). As seen from the discussions above, interviewed sales people were positive in adopting new products in volatile markets. Sales people stated that market volatility has a positive effect on their decision to adopt new products.

### Scale of Market Volatility

The items for market volatility are depicted in table 5.15. Interviewed sales people confirmed all 4 items, which were examined by Hultink and Atuahene-Gima (2000).

## Table 5.15 The Scale of Market Volatility

### Scale Items

#### Source

- 1. Stable Unstable Confirmed, Hultink and Atuahene-Gima (2000)
- 2. Certain Uncertain Confirmed, Hultink and Atuahene-Gima (2000)
- 3. Changes Changes rapidly Confirmed, Hultink and Atuahene-Gima (2000)
- Predictable Unpredictable Confirmed, Hultink and Atuahene-Gima (2000)

## 5.3 Review of Discussions with Sales People

Concerning the category of new product factors, all interviewed sales people gave great importance to the relative advantage and the compatibility of new products. The new product has to have advantages. The sales force is motivated by access to unique products, sales people stated. The relative advantage and the compatibility of new products attract sales people to adopt them. As for the variable of the complexity of new products, it appeared that most interviewees were positive in adopting complex new products. From the category of organisational factors, most respondents stated that the commitment of the firm to innovations will positively affect their decision to adopt new products. For the variable of marketing orientation, all interviewed sales representatives noted that when a company is marketing oriented they will be motivated to adopt new products.

From the sales managers' category all respondents gave great emphasis to the role of training, and the sales management control systems. Interviewed sales people noted that training would motivate them to adopt new products. In addition, there was total agreement on the management control systems. Again, all interviewed sales people were in favour of both control systems; the behaviour-based and the outcome-based control system. Sales people stated that the behaviour control system was supportive. Thus, this system would motivate them adopt new products. For the outcome control system all sales people seemed to not be daunted by the fact that sales managers set outcome targets that must achieve. Hence, they would be motivated to adopt new products under the outcome-based control system. As for the variable of feedback, most respondents appeared to favour feedback they get from their supervisors.

For the category of sales force factors, all respondents stated that career success and learning orientation are important sales force characteristics in influencing the sales force new product adoption decision. For the variable of career success of sales people all interviewees stressed the importance of being successful in their careers. Career successful sales people certainly are positive in adopting new products. For the variable of sales force learning orientation, all interviewed sales people again, stated that learning orientation is an important trait of sales people that will positively affect their decision to adopt new products. For the variable of sales force experience, most sales representatives appeared to consider experience as something that hindered their decision to adopt new products. Finally, for the environmental factors all sales people stated that competitive intensity was not a hurdle to their decision to adopt new products of their firm. The same was the stance of interviewees to the variable of market volatility. Sales representatives were positive to adopt new products in volatile markets. In addition, all respondents noted that in a competitive environment, the positive effect of career success of sales people on their decision to adopt new products was stronger.

Furthermore, the discussions with sales people gave an insight into the most important factors affecting their own decision to adopt new products of the firm. According to interviewed sales representatives, the variables that positively affected their decision to adopt new products were the following:

- 1. The relative advantage of new products,
- 2. The compatibility of new products,
- 3. The marketing orientation of the firm,
- 4. The training,
- 5. The behaviour-control system,
- 6. The outcome-control system,
- 7. The career success of sales people and
- 8. The learning orientation of sales people.

## 5.4 Contributions to Knowledge

### 5.4.1 Development of Conceptual Framework

The academic literature has been the first source of information for the variables affecting sales people to adopt new products. With these variables, the study has constructed the conceptual framework, which is depicted in figure 1 of chapter 3. The figure consists of 5 categories of variables affecting the decision of the sales force to adopt new products. The discussions with sales people, which were described in the previous sections of the current chapter, gave a comprehensive understanding of the attitude and behaviour of sales people when the firm introduced new products.

Interviewed sales people talked about each category of variables and expressed their opinions for each variable. Indeed, it was found that the variables of the conceptual framework (figure 3.1) are influential to the sales force decision to adopt new products. Some variables have a positive effect and others have a negative effect on their decision to adopt new products. Interviewed sales people accepted all the propositions of the current study, which are presented along with their arguments in chapter 3 of the current study. Thus, the study has contributed to knowledge by having developed a conceptual framework of the factors affecting sales force decision to adopt new products. The construction of this framework, which accurately represents the new product sales force adoption concept, is the first contribution to knowledge of this research.

## 5.4.2 Development of Scales

In the discussions of the previous sections, interviewed sales people described the variables of the study so that items could be developed. Indeed, sales people developed some items. In other cases, sales people confirmed items found in the literature. The result was the development of item scales for the variables affecting sales force new product adoption. The scales represent the second contribution to knowledge. However, in order to employ a quantitative research in the future, the scales developed in the current study must be purified.

## 5.4.3 Integration of Literatures

### New Product Factors

The category of new product factors (figure 3.2) incorporates variables found in the general literature of the adoption of innovations. Relative advantage, compatibility and product complexity have been found to influence consumers (Rogers 1995; Verhoef and Langerak 2001) as well as organisations (Frambach 1993; Frambach, et. al., 2002; Kim and Srivastava 1998) to adopt new products. Interviewed sales people stated that relative advantage, compatibility and product complexity would also influence their own decision to adopt new products. Thus, the finding here is that the variables found in the general literature of the adoption of innovations could also apply to the sales force new product adoption context. The contribution here is the integration of the new product sales force adoption literature with the general literature of the adoption.

#### Organisational Factors

The category of organisational factors (figure 3.3) incorporates the firm's commitment to innovations, which was found in the literature of the adoption of new products by the sales force. More specifically, authors have found that firm's commitment to innovations positively affected the sales force decision to adopt house brands (Anderson and Robertson 1995). As seen from the discussions, interviewed sales people stated that firm's commitment to innovations would positively motivate them to adopt new products. Thus, the finding here is that this variable could as well be used in the context of sales people adopting new industrial products.

Another variable here is the marketing orientation of the firm. This variable was found in the marketing orientation literature. Authors have found that marketing orientation positively affects company performance (Avlonitis and Gounaris 1997). In the general literature of the adoption of innovations, authors have examined the marketing actions of the firm and suggested that marketing actions in terms of commitment to sizeable marketing expenditures in advertising, sampling programmes, distribution programmes, etc., would affect consumers to adopt new products (Gatignon and Robertson 1985). Interviewed sales people stated that the whole concept of marketing orientation would positively affect their decision to adopt new products. Thus, the finding here is that marketing orientation could also be used in the context of new product sales force adoption. The contribution again here is that the new product sales force adoption literature will be integrated with the general literature of the adoption of innovations as well as the marketing orientation literature.

## Sales Managers' Factors

The category of sales managers' factors (figure 3.4) incorporates variables found in the new product sales force adoption and the sales management literature. Interviewed sales people noted that the variables of training, feedback and the sales management control systems have positive impact on their decision to adopt new products.

Training has been found to positively influence the decision of sales people to adopt house brands (Anderson and Robertson 1995). Authors in the sales management literature have investigated the role of training as having influence on sales people when the firm introduces new products (Cothran 1990; Wotruba and Rochford 1993). Interviewed sales people declared that training has a positive influence on their decision to adopt new products. Thus, the finding here is that training could also be used in the context of sales people adopting new industrial products. The contribution here is the integration of the new product sales force adoption literature with the sales management literature.

Feedback was examined in the sales management literature as a mechanism to influence sales force satisfaction, and performance (Jaworski and Kohli 1991; Singh 1993). Interviewed sales people stated that feedback would positively affect their decision to adopt new products. Thus, the finding here is that feedback could also be used in the context of sales people adopting new products. Again here the contribution is the

integration of new product sales force adoption literature with the sales management literature.

Sales management control systems were studied in the sales management literature as variables affecting sales force performance (Jaworski and MacInnis 1989; Cravens et. al., 1993; Oliver and Anderson 1994; Piercy et. al., 1997). The variables of behaviour and outcome-control systems can be used in the conceptual framework of the current study as factors affecting the decision of sales people to adopt new products. Interviewed sales people stated that both the behaviour-control and the outcome-control systems would positively influence their behaviour to adopt new products. Thus, the finding here is that behaviour and outcome-control systems could also be used in the context of sales force new product adoption. Again, here the contribution is the integration of the new product sales force adoption literature with the sales management literature.

### Sales Force Factors

The category of sales force factors (figure 3.5) incorporates variables found in the sales force new product adoption as well as the sales management literature. Anderson and Robertson (1995) have found that career success and experience of sales people affected positively and negatively respectively the decision of sales people to adopt house brands. Authors in the sales management literature, have examined the influence of career stages on sales force motivation (Cron 1988). Others, in the same literature as before have examined the relationship between sales force experience and the performance of industrial sales people (Behrman and Perreault 1984). Interviewees stated that sales force career success and experience are variables influencing positively and negatively respectively the decision of the sales force could also be used as influencing variables in the context of sales people adopting new industrial products. The contribution again here is the integration of the new product sales force adoption literature with the sales management literature.

The sales force learning orientation variable has been examined in the sales management context as variable affecting sales force performance (Sujan et. al., 1994; Kohli et. al., 1998). As seen from the discussions on the learning orientation of sales people, interviewees favoured learning orientation as having positive influence on their decision to adopt new products. Thus, the finding here is that learning orientation could also be used in the sales force new product adoption context. The contribution again here is the integration of the new product sales force adoption literature with the sales management literature.

#### Environmental Factors

The category of environmental factors (figure 3.6) incorporates variables found in the general literature of the adoption of innovations as well as in the literature of new product sales force adoption. Authors from the general literature of the adoption of innovations (Johnson and Scholes 1997; Frambach, et. al., 2002) have examined the impact of competitive intensity on the rate of adoption in organisations. Authors from the literature of the adoption of new products by the sales force have also examined the role of competitive intensity. A study was on the adoption of laptop computers by the sales force but at the organisational level (Gatignon and Robertson 1989). Interviewed sales people stated that competitive intensity would positively affect their decision to adopt new products.

Thus, the finding here is that competitive intensity could also be used in the context of sales people adopting new products at the individual level as is the focus of the current research. The contribution again here is the integration of the new product sales force adoption literature with the general literature of the adoption of innovations.

Authors from the general literature of the adoption of innovations (Robertson and Gatignon 1986; Tornatzky and Fleischer 1990; Chau and Tam 2000) have examined the effect of market volatility on the decision of organisations to adopt innovations.

Interviewed sales people stated that market volatility would positively affect their decision to adopt new products. Thus, the finding here is that this variable could also be used in the context of sales people adopting new products. The contribution again here is the integration of the new product sales force adoption literature with the general literature of the adoption of innovations.

#### 5.5 Conclusion

This chapter presented the results and discussions. Interviewed sales people stated the variables affecting their decision to adopt new products. The examination of each variable of the study revealed the positive or negative influence of these factors on the decision of sales people to adopt new products. These influences are depicted in figures (3.2), (3.3), (3.4), (3.5), and (3.6) of the study. Thus, propositions were developed. The sales people's views and comments aided the researcher to finalise and construct the conceptual framework of the study (figure 3.1), which is the first contribution to knowledge.

Scales were developed in the interviews (Appendix 1). Interviewed sales people generated some items of the scales. Other items had their source in the academic literature and sales people confirmed these items. Exploratory developed items and confirmed items whose source was the literature were grouped and placed under each variable. Thus, scales were developed, which represent the second contribution to knowledge.

The conceptual framework of the study is integration of the new product sales force adoption literature with the general literature of the adoption of innovations, the sales management literature and the marketing orientation literature. This integration represents the third contribution to knowledge. The next chapter, which is the last of the study, presents the final conclusions, the managerial implications and the limitations of the study. In addition, it gives insights for future research.

### CHAPTER 6 – FINAL CONCLUSIONS

## 6.1 Introduction

In the previous chapter, sales people talked about their personal attitudes and behaviours when their company introduced new products. They talked about the variables that would motivate them to adopt new products. In addition, interviewed sales people expressed the positive or negative influence of each variable on their decision to adopt new products. Furthermore, respondents described each variable. With this description, items developed that measure the variables of the study. From the analysis of the discussions, final conclusions can be drawn. These conclusions are described in this chapter.

The conceptual framework (figure 3.1) of the study, which has been developed from the academic literature and the personal interviews with sales people is a first step in understanding the factors influencing sales force decision to adopt new products. From this, managerial implications can be drawn, which are described in the current study. Furthermore, the chapter presents the limitations of the study. The discussions with sales people gave some insights that are useful for future research. The insights are described in the current chapter as well.

### 6.2 Final Conclusions

The aim of the current research was to examine the adoption of new products by the sales force. The research objectives were as follows:

- 1) To develop a model of the antecedents, to sales person new product adoption,
- 2) To develop propositions to the sales force new product adoption, and
- 3) To adjust scales to the sales force context for future empirical research.

The current study adopted a qualitative approach and conducted personal interviews with sales people representing the engineering and the pharmaceutical sectors. Sales people came from medium and large-sized companies.

Interviews with sales people had three purposes, which are the following:

- 1. The first purpose was to validate the conceptual framework (figure 3.1) of the study by asking interviewees to name the variables that would motivate them adopt new products,
- The second purpose was to develop propositions by asking respondents to state the positive or negative influence of each variable on their decision to adopt new products, and
- 3. The third purpose was to develop item scales that are applicable to the sales force new product adoption context. Interviewed sales people would create new items that measure each variable of the study. Alternatively, respondents would accept or reject items found in the academic literature.

Indeed, the interviews with sales people helped the researcher to achieve the previously mentioned objectives. The study has identified the factors affecting the sales force decision to adopt new products. The categories of factors affecting sales force adoption are depicted in figure 1 of chapter 3. In addition, the study has developed propositions that can be tested in future research. These propositions are stated in chapter 3 of the study. Furthermore, the study constructed scales that can be applied to the sales force new product adoption context. The scales that have been developed are shown in chapter 5.

The original model that incorporated the variables affecting sales force decision to adopt new products had its source in the academic literature. The variables came from the general literature of the adoption of innovations, the literature of sales force new product adoption, the sales management literature and the marketing orientation literature. The variables were classified into 5 categories. These are the category of new product factors, the category of organisational factors, the category of sales managers' factors, the category of sales force factors, and the category of the environmental factors. Below the categories and their respective variables are presented.

## The New Product Factors

- 1) The relative advantage of new products,
- 2) The compatibility of new products,
- 3) The complexity of new products,

## The Organisational Factors

- 1) The firm's commitment to innovations,
- 2) The marketing orientation of the firm,

## The Sales Managers' Factors

- 1) The training,
- 2) The feedback,
- 3) The behaviour-control system,
- 4) The outcome-control system,

# The Sales Force Factors

- 1) The career success of sales people,
- 2) The sales force experience,
- 3) The learning-orientation of sales people,

## The Environmental Factors

- 1) The competitive intensity, and
- 2) The Market Volatility

Interviewed sales people talked about the variables that would affect their decision to adopt new products. The variables were the same as the ones the current research had originally found in the literature. After the discussions on the variables were finalised, the researcher constructed the conceptual framework of the study (figure 3.1). In addition, interviewed sales people stated the negative or positive influence of each variable on new product sales force adoption, so that propositions could be developed. The propositions made by interviewees were the same as the ones made by the researcher. After the discussions on the propositions were completed, the current study developed the propositions along with the arguments, which are presented in chapter 3. Many items that measure the variables of the study were found in the academic literature. Interviewed sales people confirmed items and created new ones. Thus, 89 items were developed during the interviews with sales people that represent the sales force new product adoption context (Appendix 1).

Chapter 5 presented the discussions made after the interviews with sales people. These discussions gave two insights, which are presented below:

- 1. The first insight that was gained was into the most important variables affecting sales people to adopt new products, and
- 2. The second insight that was gained was into the most important categories of variables affecting sales people new product adoption.

The most important variables according to interviewed sales people are the following:

1) The relative advantage of new products,

- 2) The compatibility of new products,
- 3) The marketing orientation of the firm,
- 4) The training,
- 5) The behaviour-control system,
- 6) The outcome-control system,
- 7) The career success of sales people, and
- 8) The learning orientation of sales people.

The most important categories of variables affecting sales people to adopt new products are the following:

- 1) The category with the new product factors (figure 3.2),
- 2) The category with the sales managers' factors (figure 3.4), and
- 3) The category with the sales force factors (figure 3.5).

In addition to the above the current work contributed in finding out the following:

1) The importance of new product factors on the decision of sales people to adopt new products.

Interviewed sales people stated that relative advantage, compatibility, and complexity of new products have positive effect on their decision to adopt new products. This is new finding altogether because researchers in the past have not examined the influence of new product attributes in the context of sales people adopting new products.

2) The role of product complexity on sales people decision to adopt new products.

Interviewed sales people stated that the complexity of new products has positive effect on their decision to adopt new products. This is in contrast with the academic literature, which found out that complexity negatively affected new product adoption decision by consumers and/or organisations (Rogers 1995).

3) The importance of marketing orientation on sales people decision to adopt new products.

Interviewed sales people stated that marketing orientation has positive effect on their decision to adopt new products. This finding is new because the variable of marketing orientation has not been incorporated, in past research, as factor that would influence sales people to adopt new products.

4) The role of outcome-based control system on sales people decision to adopt new products.

Interviewed sales people stated that outcome-based control system had positive effect on their decision to adopt new products. This finding is in contrast with the academic literature (Atuahene-Gima 1997), which proposed that outcome-based control system negatively affected sales people to adopt new products.

5) The role of experience of sales people on their decision to adopt new products.

Interviewed sales people stated that experience had negative effect on their decision to adopt new products. This finding is in contrast with the academic literature (Atuahene-Gima 1997), which proposed that experienced sales people were positive in adopting new products.

### 6.3 Implications for Managers

The concept of sales force new product adoption consists of two dimensions, which are the commitment of the sales force to new products and the effort sales people put in order to sell the products. The definition of adoption of new products by the sales force as described in chapter 1 of the study cautions that the acceptance and commitment of the sales force to new products should not be assumed or taken for granted. More importantly, a sales person's effort at selling a new product without commitment should not be construed as adoption because such effort may be directed at activities that increase sales in the short term but may be harmful to the long term performance and reputation of the product.

The conceptual framework that has been constructed in the current study (figure 3.1), suggests many specific actions that can be taken by management to facilitate adoption of new products by the sales force and to reduce dysfunctional behaviour.

Interviewed sales people gave great importance to the relative advantage of new products. Management should not assume that sales people are aware of the relative advantages of new products. To encourage adoption of new products management should be aware of the necessity of explicitly communicating the relative advantages of the innovation. In addition, interviewees noted that product complexity positively affected their decision to adopt new products. Thus, management should emphasise the intrinsic satisfaction sales people gain when selling complex new products.

Interviewed sales people noted that firm's commitment to innovations would positively affect their decision to adopt new products. Where sales people are unconvinced of the commitment of the firm to its new products, view the firm as intolerant of failure. Sales people will not be confident to sell new products. Thus, management should emphasise the commitment of the firm to innovations.

Respondents also stated that training was highly effective. Thus, to encourage and facilitate new product adoption management needs to show support through training. In addition, sales representatives showed that they did not have negative attitude towards the outcome-control system. The rationale is that sales people liked the autonomy and flexibility engendered by this control system. The implication here is that management

should not be hesitant in moving towards the use of outcome-control when launching new products.

When introducing new products management should target career successful sales people. All interviewed sales people stated that career success of sales people positively affected their decision to adopt new products. Long-term successful sales people appear to master quickly any saleable product. Career successful sales people have high self-efficacy in selling (Cron 1984). Another issue that was understood from the interviews with sales representatives was about sales force experience. Experienced sales people were more resistant when the firm introduced new products. Thus, management should avoid targeting sales people with years of experience because it was obvious in the interviews that experience hindered adoption of new products. Experienced sales people settle into routines that are difficult to change (Cron 1984).

Interviewed sales people stated that learning-orientated sales people were positive in adopting new products. The rationale is that these sales people like to learn new things. Learning oriented sales people are likely to be innovative and risk takers (Button, Mathieu and Zajac 1996). Thus, management may have to design recruitment and selection systems that screen sales people for their learning orientation.

The interviews with sales people showed that competitive intensity and market volatility positively affected the decision of the sales force to adopt new products. The potential managerial insight here is that managers may want to emphasize the intrinsic satisfaction that sales people gain selling new products in such environments.

### 6.4 Limitations

The interviews with sales people helped the researcher to understand the behaviour and attitude of sales people when the firm introduced new products. The interviews, gave insights into the most important variables affecting sales force decision to adopt new

products. However, the importance of the findings, there are some limitations, which are discussed below.

The first limitation is that the conceptual framework of the current study (Figure 3.1) did not incorporate other independent variables that could also be important in affecting sales people decision to adopt new products. For example, the study did not examine more variables from the marketing mix. It has only examined variables related to the product such as the relative advantage, the compatibility, and the complexity of the product. It did not examine variables related to the products such as advertising and other communication channels. Extensive advertising, for example, could positively affect sales people decision to adopt new products. Another variable from the marketing mix is the price of the product. Price is an important variable affecting sales people as well as consumers to adopt new products.

Finally, another marketing mix variable is the place. The study did not examine the influence of members who make the distribution channels. Sales representatives who have been interviewed for the purpose of this study sold products to intermediaries. The current study did not examine the influence of these intermediaries on sales people decision to adopt new products. An influence could be the power that intermediaries might have. This power could negatively influence sales force adoption decision. Another influence is the degree of sales people selling new products if their own customers are not happy with the product. Another variable could be the demand coming from intermediaries. Sales people will not adopt new products if there is no demand from intermediaries for new products.

The second limitation is that the conceptual framework did not incorporate outcomes of sales force new product adoption. The outcomes that could be incorporated in the conceptual framework of the study (figure 3.1) are the sales performance, and sales force satisfaction. This study only investigated the factors affecting sales people to adopt new products. The study should have examined whether adoption of new products by the

sales force could lead to higher sales performance and job satisfaction of sales people. When there is lack of identification and of internalisation of the new product, sales people will only sell the new product half-heartedly.

The third limitation is that the current study only used one variable as moderator between an independent variable and the dependent variable of the study. The study examined the variable of competitive intensity as moderator between the independent variable of career success of sales people and the dependent variable of the study, which is the adoption of new products by the sales force (figure 3.7). The current review ought to have examined more moderators.

The fourth limitation is that the independent variable of competitive intensity has only been examined to moderate the relationship between career success and sales force new product adoption. The study could as well have examined the moderating effects of competitive intensity between other independent variables and the dependent variable of the study.

The fifth limitation is that the study interviewed sales people who sold products only to intermediaries. The variables affecting sales people decision to adopt new products might be different if interviewed sales people sold products to final consumers, too.

The sixth limitation is the sample of engineering companies. It was a convenient sample. Companies were based in Birmingham. Thus, it was convenient for the researcher to carry out interviews because Aston University itself was located in Birmingham. Future research should take a different approach in selecting a sample.

The seventh limitation is the sample of sales people from the pharmaceutical sector. The sample was small. Not many sales people from this sector accepted to give an interview. The number was 4 compared to 10 sales people representing the engineering sector. Further, the sample of the companies from the pharmaceutical sector was smaller compared to the companies of the engineering sector. Only 2 medium-sized

pharmaceutical companies compared to 4 medium-sized engineering companies took part in the study. In addition, only 1 large-sized pharmaceutical company compared to 4 large-sized engineering companies participated.

The eighth limitation is that not many industry sectors were chosen. The study has only selected the pharmaceutical and the engineering industry. Thus, it is difficult to say that the variables found in this study that affect sales force adoption of new products are the same in all industries. Examining other industrial sectors in the future, would give a clearer picture of what affects adoption of new products by the sales force.

The ninth limitation is that the UK context of the study limits the generalisability of the findings to other national contexts. All interviews, which the researcher has conducted, were held in the UK. Future research may overcome the problem of generalisibility by studying the attitude and behaviour of sales people in the introduction of new products in other countries, too. However, the use of a market setting other than the larger European markets does not diminish the significance of the, preliminary in nature, findings presented in this study. Especially so when little research effort has been devoted in examining the factors influencing the adoption of new products by the sales force.

The tenth limitation is the interviewer bias in the analysis of the data. The current research has not employed any scientific method in order to analyse the data from the interviews with sales representatives.

### 6.5 Future Research

The current study has constructed a conceptual framework of the factors affecting sales people to adopt new products. An important advantage of the model (figure 3.1) is that it is broad and cross-level examining how firm-level factors affect individual sales person behaviour. Although, this will pose research design and data collection challenges, it promises a more complete and realistic specification of factors affecting new product adoption by the sales force. However, given the complexity of this model, future research should concentrate on specific parts of the model.

The focus of the current study has been on the factors affecting the decision of the individual sales person to adopt new products. However, as seen in chapter 1, the study offered a definition of new product adoption that is capable of usage at multiple level of analyses such as the sales team, and the firm's entire sales force. Future research should examine these other units of new product adoption.

The conceptual framework of the study was examined in companies, which sold products. However, the model is broad enough and it can integrate the selling of both new products and services. A useful avenue for future research is to specify and test the differences between sales force adoption of new products and new services. Recent research suggests that factors affecting innovation success have significant differential potency between new products and new services (Atuahene-Gima 1996). In addition, future research should examine the factors affecting sales force adoption of low-tech and high-tech products.

The current research carried out interviews in the engineering and pharmaceutical industrial sectors, only. Future researchers should examine the new product sales force adoption concept by interviewing sales people in other industrial sectors, too. This way a more rounded understanding of the variables affecting sales people to adopt new products, could be achieved. It will also give a more detailed view of the nature of the relationships identified in the study. In addition, accurate comparisons and contrasts of the many industrial sectors would be achieved. This would allow researchers to enhance the gravity of the conclusions.

Future research should look to investigate the variables influencing sales people to adopt new products in small-sized, medium-sized, and large-sized companies. This way, researchers could examine whether sales people working in different sized-companies are influenced by different factors in adopting new products. In addition, future research should look into the factors affecting sales force new product adoption in other countries apart from the UK. This way, comparisons between countries could be drawn.

The current research did not examine whether a sales person was quicker to adopt new products compared to his/her colleague. Future research should examine the effect of different levels of innovativeness of sales people. Rogers and Shoemaker (1971) define innovativeness as "the degree to which an individual is relatively earlier in adopting an innovation than other members of his/her system, that is to say, that an individual is relatively quicker in relation to the normal adoption time and not that the said individual believes himself/herself to have adopted the innovation before other members of the same system. Rogers (1995) provided a definition in the same line. The innovativeness is the degree to which an individual or adoption unit adopts a new idea as compared to other members of the system. Thus, there could be sales people who will adopt the new product in the introductory phase, while others do so later.

In addition, future research should examine the effect of different levels of innovativeness of firms. The innovativeness dimension is characterised by varying degrees of expenditure in research and development, greater risk, and in general, a more creative and outward-looking attitude (Traynor 1997). Firms with different levels of innovativeness may market their products differently. These firms may use different marketing strategies and promotional techniques. Thus, it is useful to examine how innovativeness could affect sales force new product adoption decision.

Another issue is the innovation culture. Future research should examine the effect of different levels of innovation culture of the firms on the decision of sales people to adopt new products. Some firms develop a culture in which innovation features prominently whereas others do not. A high level of innovation culture is characterised by regular cross-functional contacts, productive meetings, budgeting for innovation time, interesting and creative people, quick and simplified decision-making, the use of research to identify unmet needs, and by having the innovation as a measurable target (Browning 2002).

With respect to operationalisation, as a variable, new product adoption should range from low to high degree of adoption, and must be measured with both behavioural and attitudinal scales. The behavioural scale is the effort (Hultink and Atuahene-Gima 2000) of the sales force and the attitudinal scale is the commitment (Hultink and Atuahene-Gima 2000) of the sales force to the new product (Appendix 2).

The conceptual framework and propositions developed in the current study provided a first step towards understanding the factors influencing sales force decision to adopt new products. The propositional inventory presented in this study needs to be tested in future research.

## 6.6 Conclusion

The current chapter presented the final conclusions that were drawn from the discussions made with sales people in some medium and large-sized engineering and pharmaceutical companies. The discussions made in chapter 5 revealed the most influential variables affecting new product sales force decision. Also, the most important categories of variables that would affect the sales force decision to adopt new products, were examined.

The conceptual framework (figure 3.1) was constructed thus accomplishing the first objective of the current research. In addition, propositions were developed, which led to the attainment of the second objective of the study. Furthermore, scales were constructed, which fulfilled the third objective of the study. The objectives of the study are presented in chapter 1 of the current review.

Managerial implications were drawn, which were presented in this chapter. In addition, the chapter presented the limitations of the study. The section of the insights for future research, which were described in the current chapter, will aid other researchers in order to expand deeper knowledge on the decision of the sales force to adopt new products.

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#### **APPENDIX 1**

Scale Items

#### SCALE DEVELOPMENT

#### The New Product Factors

The Relative Advantage of the New	v Product	
1. The new product offers unique ber Gima (1995)	nefits Exploratory (or CONFIRMED), Atuahene-	
2. The new product solves problems	Exploratory	
3. The new product reduces costs	Exploratory (or CONFIRMED), Rogers (1995)	
4. The new product has an improved	performance compared with old products	

Source

5. The new product provides higher quality than competitors' product Exploratory (or CONFIRMED), Atuahene-Gima (1995)

#### The Compatibility of the New Product

6. The suitability of the new product; the new product has to appeal to customers and to sales people Exploratory
7. The adaptation of the new product; the new product has to be included into everyday life Exploratory
8. The accessibility of the new product; the new product must be sold in various outlets to ease purchase Exploratory
9. The new product is compatible with previously introduced products Exploratory (or CONFIRMED), Rogers (1995)
10. The new product is compatible with customers' needs for the innovation Exploratory (or CONFIRMED), Rogers (1995)

The Complexity of the Ne	ew Product
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11. The new product is sophisticated
Confirmed, Hultink, Atuahene-Gima, Lebbink (2000)
12. The new product is highly technical
Confirmed, Hultink, Atuahene-Gima, Lebbink (2000)

## The Firm's Commitment to Innovations

13. My firm has invested a lot of time and money in new products

## Exploratory

14. The firm simply has not put enough talent and resources behind getting topperforming new products **Exploratory** 

15. Developing new products are not one of the highest priorities in this company

#### Exploratory

16. My firm carefully researches and develops its new products before introducing them **Exploratory** 

17. My firm is going all out to push products that bear the company name Confirmed, Anderson and Robertson (1995)

18. The firm is very serious about developing and marketing its own proprietary products

#### Confirmed, Anderson and Robertson (1995)

19. Management makes noise about selling proprietary products, but they have not put much firepower behind developing them

### Confirmed, Anderson and Robertson (1995)

#### The Marketing Orientation (Attitude)

20. Intelligence on competition Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

21. Adapt to the market Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

22. Market analysis Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

23. Promoting Products Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

24. Supporting sales Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

25. Confined in sales and marketing department Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999) 26. The marketing concept is not existent Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

27. A confusing concept Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

28. Design and production management Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

29. Decisions on quality and quantity Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

30. Build customer relations Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

31. Maintain customer contacts Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

32. Satisfy customers' needs Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

33. Build product positioning and image Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

34. A company culture Confirmed, Hooley, et. al., (1990); Avlonitis and Gounaris (1997; 1999)

#### The Marketing Orientation (Behaviour)

- 35. The degree of market intelligence collection Confirmed, Kohli and Jaworski (1990); Avlonitis and Gounaris (1997; 1999)
- 36. The degree of company-wide dissemination of the intelligence Confirmed, Kohli and Jaworski (1990); Avlonitis and Gounaris (1997; 1999)

37. The degree of responsiveness to the market intelligence gathered Confirmed, Kohli and Jaworski (1990); Avlonitis and Gounaris (1997; 1999)

# **The Sales Managers' Factors**

#### **The Training**

38. I received substantial training before I assumed responsibility for selling new products **Exploratory** 

39. I have spent a significant amount of time in training for new products

40. Our training programme for new products is first class Exploratory

#### The Feedback

41. I receive enough information from my boss about my job performance Confirmed, Teas, et. al., 1979; Teas 1983; Singh 1993
42. I receive enough feedback from my boss on how well I am doing Confirmed, Teas, et. al., 1979; Teas 1983; Singh 1993
43. There is enough opportunity in my job to find out how I am doing Confirmed, Teas, et. al., 1979; Teas 1983; Singh 1993
44. I know how well I am performing on my job Confirmed, Teas, et. al., 1979; Teas 1983; Singh 1993
45. I receive feedback from my supervisor on the procedures I use to accomplish my goals Confirmed, Sims, et. al., 1976; Agarwal and Ramaswami (1993)

46. Information about how my performance will be evaluated has been directly communicated to me

Confirmed, Sims, et. al., 1976; Agarwal and Ramaswami (1993)

#### The Behaviour-Control System

47. My supervisor monitors the extent to which sales people follow established procedures pertaining to the new product

Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

48. My supervisor modifies my procedures when desired results are not obtained Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000) 49. My supervisor evaluates the procedures sales people use to accomplish the task of selling this new product

# Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

50. My supervisor evaluates the quality of sales presentations made by me Exploratory

51. My supervisor evaluates my professional development Exploratory

52. My pay increases and other tangible rewards depend on how well I follow laid down sales procedures pertaining to this new product

## Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

53. My pay increases and other tangible rewards depend on my knowledge of specific procedures and practices in selling this new product

# Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

## The Outcome-Control System

54. Specific performance goals are established for my job

# Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

55. Performance evaluations of sales people on this new product place primary weight on results Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

56. My pay increases and other tangible rewards depend on the degree to which I have achieved specified output regardless of whether sales procedures were followed or not

# Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

57. If my performance goals for this new product were not met, I would be required to explain why Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

58. My pay increases and other tangible rewards depend on how my performance compares with the goals for this new product

# Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

59. My pay increases and other tangible rewards depend on the degree to which I have achieved the goals set for this product

Confirmed, Jaworski and MacInnis 1989; Hultink and Atuahene-Gima (2000)

# **The Sales Force Factors**

The Sales Force Career Success	
60. I am one of the highest earners in my firm	
	Exploratory
61. I am gaining prestige accounts	
	Exploratory
62. I like to be seen as successful	
	Exploratory
63. I am happy when I overcome a technical problem	
	Exploratory
64. I consider myself successful when I am satisfied with my job	
	Exploratory
65. I am one of the most successful sales people I know	
Confirmed, Anderson and	1 Robertson (1995)
66 Other sales people see me as an example of how much money	there is to be made i

66. Other sales people see me as an example of how much money there is to be made in this business

#### **Confirmed, Anderson and Robertson (1995)**

67. I make out all right, but I'm not in the top earnings' category in my firm Confirmed, Anderson and Robertson (1995)

# The Sales Force Learning-Orientation

68. Number of years

69. There really are not a lot of new things to learn about selling Confirmed, Sujan, et. al., (1994); Kohli, et. al., (1998)

70. It is worth spending a lot of time learning new approaches for dealing with customers

# Confirmed, Sujan, et. al., (1994); Kohli, et. al., (1998)

Confirmed, Hultink and Atuahene-Gima (2000)

71. An important part of being a sales person is continually improving your sales skills Confirmed, Sujan, et. al., (1994); Kohli, et. al., (1998)

72. It is important for me to learn from each selling experience I have Confirmed, Sujan, et. al., (1994); Kohli, et. al., (1998) 73. I put in a great deal of effort in order to learn something new about selling Confirmed, Kohli, et. al., (1998)

74. Learning how to be a better sales person is of fundamental importance to me **Confirmed, Kohli, et. al., (1998)** 

75. The opportunity to do challenging work is important to me Confirmed, Sujan, et. al., (1994); Button, et. al., (1996)

76. When I fail to complete a difficult task, I plan to try harder the next time I work on it **Confirmed, Button, et. al., (1996)** 

77. I prefer to work on tasks that force me to learn new things Confirmed, Button, et. al., (1996)

78. When I have difficulty solving a problem, I enjoy trying different approaches to see which one will work

Confirmed, Button, et. al., (1996)

79. On most jobs, people can pretty much accomplish whatever they set out to accomplish

Confirmed, Button, et. al., (1996)

0. Competition in o	Confirmed, Kohli and Jaworski (1993)
1. There are many '	promotion wars" in our industry Confirmed, Kohli and Jaworski (1993)
32. Anything that on	e competitor can offer others can match readily Confirmed, Kohli and Jaworski (1993)
33. Price competition	n is a hallmark of our industry Confirmed, Kohli and Jaworski (1993)
34. One hears of a ne	ew competitive move almost every day Confirmed, Kohli and Jaworski (1993)
35. Our competitors :	are relatively weak Confirmed, Kohli and Jaworski (1993)

86. Stable – Unstable	Confirmed, Hultink and Atuahene-Gima (2000)	
87. Certain – Uncertain	Confirmed, Hultink and Atuahene-Gima (2000)	
88. Changes – Changes rapidly	Confirmed, Hultink and Atuahene-Gima (2000)	
89. Predictable – Unpredictable	Confirmed, Hultink and Atuahene-Gima (2000)	

# **APPENDIX 2**

#### **New Product Adoption**

#### Effort

Compared to other products you have sold, how much effort did you devote to this new product in:

Hultink and Atuahene-Gima (2000)

- 1. Prospecting for customers
- 2. Planning sales calls
- 3. Collecting market information
- 4. Using market information
- 5. Building customer relationships

## Commitment

- 1. I feel emotionally attached to the success of this new product Hultink and Atuahene-Gima (2000)
- Achieving objectives for this new product has a great deal of personal meaning to me Hultink and Atuahene-Gima (2000)
- 3. I enjoy discussing this new product with other sales people Hultink and Atuahene-Gima (2000)
- 4. I feel a strong sense of duty to ensure the success of this new product Hultink and Atuahene-Gima (2000)
- 5. I would be willing to make further investment of my time and energy to support this new product **Hultink and Atuahene-Gima (2000)**