MASTER

The influence of the sales manager's personality on new product adoption by salespeople

van Ingen, R.E.

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The influence of the sales manager’s personality on new product adoption by salespeople

By
R.E. (Ramon) van Ingen

BSc Industrial Engineering and Management Science — TU/e
Student identity number 0726288

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First supervisor: Dr. A. de Jong, TU/e, ITEM
Second supervisor: Prof. dr. E. Demerouti, TU/e, HPM
Company supervisor: Ing. J. Meeder, M2Desk
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Abstract

This study aims to explore the influence of the sales manager’s personality on new product adoption by salespeople. In doing so, the Big-Five personality theory was used to assess the sales manager’s personality and its impact on salespeople’s new product adoption. By means of a survey sent to 169 salespeople from 53 different dealers, 51 completed surveys were collected. The number of sales employees varied from 1 to 15 employees per dealer. After the data collection, multiple regression analysis was conducted in order to investigate whether specific traits of the sales manager’s personality had an influence on salespeople’s sales performance and job satisfaction. The results revealed that (1) sales manager’s extraversion has a significant effect on salespeople’s effort and commitment to the new product, (2) sales manager’s conscientiousness has a significant effect on salespeople’s commitment to new products only, and (3) neither openness nor agreeableness had a significant effect on both the dimensions effort and commitment of new product adoption by salespeople. In addition, no significant results were found of the sales manager’s personality on salespeople’s sales performance and job satisfaction. The control variable work experience of the sales manager had a negative effect on salespeople’s sales performance, while the control variable salespeople’s age had a positive effect on salespeople’s job satisfaction. The managerial and scientific implications of this study are discussed in the last section of this report.
Preface

By completing this master thesis there are several people who I want to thank for their support. First, I want to thank my parents for their support through difficult times and by providing financial support. Without their support it would not have been possible for me to be in this position. Therefore, this way I want to show them my gratitude. Second, I want to thank my grandparents for their support and care over the last four years. It was a great experience and I really appreciate their effort. We became closer during this period. Third, I want to thank all of my friends at the university for the unforgettable time we had together. There were many ups and downs, but all of you supported me in a big way to work harder and better to reach this goal. Fourth, I want to thank Jeroen Meeder for his support during my internship at M2Desk, Zoetermeer. His support was very helpful during my period as an intern there. Finally, I want to thank dr. A. de Jong and prof. dr. E. Demerouti for their support and feedback they gave me during my master thesis.

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Ramon van Ingen
**Management Summary**

This study focuses on the relation between the sales manager’s personality on new product adoption by salespeople. As salespeople are responsible for new products to be adopted by end customers successfully, they are the link between the organization’s new product and the end customer. In fact, salespeople are the first line of customers the organization needs to persuade to adopt their innovations in order to ensure diffusion of a new product among end customers (Hultink and Atuahene-Gima, 2000). Sales managers are faced with the dilemma how to persuade salespeople to sell these new products and to improve their sales performance (Fu et al. 2010). This is a particularly challenging job, since salespeople have difficulties when adopting these innovations. It often requires more advanced skills and new selling method as the activity of selling new products has an a-structural character, being dynamic and complex in nature. Moreover, it involves high risks and is unpredictable. Therefore, salespeople often prefer to continue selling existing products which usually has become a standardized short-term process that involves low risks and standard procedures.

The sales manager’s personality has appeared to be one of the drivers that influences salespeople’s performance (Barrick and Mount, 2005). By proactively setting a positive example through his or her own behavior, providing examples and patterns in line with the organizations values and beliefs, the sales manager can serve as a role model. This can become worthy of imitating by salespeople, resulting in a leader that becomes more credible and effective (Rich, 1997).

At the same time sales managers may play a significant role in molding, sculpting, and shaping the behaviors and attitudes of their salespeople (Hassan, 2011; Rich, 1997). The role of the sales manager is to guide the salesforce in adopting innovations and to effectively sell
these new products (de Jong, Song and Song, 2011; Broadbent, 1968; Pashler, 1998). However, no empirical research has been done on the influence sales manager’s personality have on new product adoption by salespeople. Therefore, this study is aimed at creating insight which specific sales manager’s personality traits will stimulate new product adoption by salespeople. By researching the sales manager’s personality this study will extend the current body of knowledge and provide new conceptual insights by addressing the following research question:

**R.Q: What sales manager’s personality traits are effective in stimulating salespeople to adopt an innovation?**

**Research**

By approaching 169 salespeople by means of a survey, data was collected from 51 respondents. By the use of multiple regression analysis, the impact of sales managers’ personality on salespeople’s new product adoption was evaluated. A sales manager tends to have a distorted view on their own personality. Therefore, a self-reported survey was not used in this study. Instead, the sales managers personality was evaluated by salespeople (Podsakoff, MacKenzie, Lee, and Podsakoff, 2003). Literature explains that the method to solve this so-called “social desirability bias” is by the use of acquaintances (salespersons) to research personality traits at targets (Beer and Watson, 2008). Beer and Watson (2008) investigated that as people get to know each other, they become better judges of each other’s personality. Also, Harkness, Tellegen, and Waller (1995) found an extensive body of evidence supporting this notion and can therefore expect moderate to strong correlations...
between a well-acquainted individual’s rating of a target individual and that target’s individual’s self-rating (Harkness, Tellegen, and Waller, 1995).

Results

Results revealed that, (1) sales managers’ extraversion has a positive effect on both salespersons’ effort and commitment. These elements make up new product adoption (Hultink and Atuahene-Gima, 2000). This means the sales manager’s level of extraversion stimulates salespeople’s new product adoption, (2) sales managers’ conscientiousness has a positive effect on the dimension commitment of salespeople’s new product adoption, indicating that salespeople show more commitment when sales managers are conscientious. In contrast, neither openness nor agreeableness had a significant effect on a salesperson’s effort and commitment, indicating that the sales manager’s level of openness and agreeableness do not stimulate new product adoption by salespeople, and (3) no significant results were found between the sales manager’s personality and salespeople’s sales performance and job satisfaction. The control variables that were examined in this study are: sales manager’s age, the work experience of the sales manager, salespeople’s age and gender. It was found that the work experience of the sales manager has an effect on the sales performance of the sales employee. Damanpour and Schneider (2008) emphasize that sales managers experience is a U-shaped model. Young sales managers with insufficient familiarity with the organization and its products will negatively influence innovations, since they fear for critical issues that may arise during the innovation adoption and have no experience how to resolve them. Older sales managers with more experience over a long period of time will affect innovations by organization, since they work according organizational routines and practices and do not want to change the status quo.
Sales employees age has a significant effect on job satisfaction showing that older sales employees are more satisfied with their job than younger sales employees. For the control variables gender and sales manager’s age no significant results were found.

**Limitations of the present study**

There are several limitations to this study. First, the sample size used in this study is relatively low: from the 169 salespeople approached only 51 salespeople responded, which results in a response rate of 29.5%. Although this study shed light on the influence of sales manager’s personality on salespeople’s new product adoption, it would be useful to have a larger sample size. This would lead to stronger findings and conclusions. Second, no objective performance metrics were used during this study. Salespeople’s sales performance was measured based on subjective items filled out by salespeople themselves, rather than using annual sales reports, which influences the validity of these results. Third, since this study has a relatively low sample size, it was not possible to properly investigate the mediating effect of new product adoption on salespeople’s sales performance and job satisfaction.

**Managerial implications**

The findings from this study have several implications for management within a sales organization. First, this study demonstrates that if organizations want to introduce and sell new products, they need to hire sales managers that are extraverted and conscientious, since these personality traits persuade salespeople to adopt new products. This implies that personality assessment should be part of the personnel selection and recruitment procedure. If sales managers score above average for extraversion and conscientiousness, the organization can select a sales manager based on the combination of their standard criteria and scores of the personality survey. Second, organizations need to facilitate the possibility to have regular informal meetings between sales managers and salespeople, since the influence the sales
manager’s personality becomes stronger on salespeople. Third, the work experience of sales managers has an effect on sales performance. This suggests that sales organizations need to have a rotation system within their organizations, were sales managers are rotated after a certain period of time. The results show that work experience of sales managers can have a significant negative effect on salespeople’s new product adoption, since sales managers with more work experience accept and identify themselves with organizational routines and are less likely to change the status quo. This is in line with prior research. Therefore, sales managers need to be rotated over time.

**Directions for further research**

This study suggests several directions for further research. First, despite the fact that a small sample size was used during this study, this study shed light on what influence sales manager’s personality has on salespeople’s new product adoption, but it would be useful to extend this research with a larger sample size. Second, it would be interesting to examine the interaction effect between behavior sales control systems and the personality of the sales manager. Both are focused on influencing and controlling the behavior of salespeople. This can result in effects that strengthen each other. Third, incentives can have a stimulating effect on young salespeople to focus more on selling new products. This study found that young salespeople are often not satisfied with their job, since their expectations on the job are not met. Incentives can stimulate young salespeople to focus more on selling new products assignments, because they will be rewarded for selling more new products and their financial expectations will be more satisfied.
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1. Introduction

In today’s society it is important for innovative firms to have a competitive advantage over other firms, because of rapidly changing business environments. In order to create this competitive advantage the sales manager must introduce innovations within the organization (Kessler and Chakrabarti, 1996). One of the most important issues addressed in this study is the adoption of innovations by salespeople themselves. Salespeople experience difficulties when adopting and selling new products, due to set routines and daily activities. Van der Borgh, de Jong, and Nijssen (2011) did a scientific research on adoption and describe that although companies invest substantial resources in expanding current selling opportunities and exploring new selling opportunities, the salesforce of companies such as AT&T, Kodak, Polaroid, and Xerox continue to report that the salesforce has problems with selling current and new products simultaneously.

This study will focus on the relation between sales manager’s personality traits and salespeople’s new product adoption. To provide a clear view on salespeople’s new product adoption and the sales manager’s personality traits, the following sections provide insight on these dimensions.

1.1 Salespeople’s new product adoption

It is important that salespeople decide to put forth the commitment and effort to sell new products, since it will impact their sales performance (Hultink and Atuahene-Gima, 2000). They emphasize the interaction between effort and commitment since mere effort in new product selling without commitment to the new products and its goals does not constitute adoption. Hultink and Atuahene-Gima (2000) defined commitment “as an attitude that
includes his or her acceptance of the new product, and his or her emotional commitment to make it a success because such success helps to achieve self-interest objectives” (Hultink and Atuahene-Gima, 2000, p. 436).

Effort is defined as “the salesperson’s force, energy, persistence, and the intensity of his or her activities to achieve desired results” (Hultink and Atuahene-Gima 2000, p. 437).

The interaction between commitment and effort will yield greater impact on selling new product performance than the impact of each factor alone. Organizations innovate with the intention to improve their level of sales performance and effectiveness. From this perspective, an innovation is not truly adopted when it has been initiated, but instead when it actually has been put in use in the organization (Damanpour and Schneider, 2008).

The difference between the sales of new products and the sales of existing products is that the sales of new products is a long-term oriented, complex process involving commercial risk. It often requires new selling methods and skills. The sales of existing products is often a process that is short-term oriented with low risks and standard procedures. This makes it appealing for salespersons to continue selling existing products instead of selling new products (van der Borgh et al., 2011). As a result salespeople tend to exclude these new products from existing sales portfolios, since they fear that it may not satisfy their customers and thus may jeopardize their relationships with them. Therefore, salespeople are not prepared to put in the extra effort in promoting the new products towards their customers, or even dislike the disruption of their standard working routines in their process of selling existing products (Anderson and Robertson, 1995; Wotruba, Thomas, and Rochford, 1995).

When it comes to the context of selling new products the role of the sales manager is important. Since selling new products has an a-structural character with a dynamic and complex nature of activities involving high risks and unpredictability, the role of the sales
manager is to be a role model and guide the salesforce to adopt and sell these new products (de Jong, Song and Song, 2011).

As sales managers are responsible for the survival of the company and need to ensure its growth, the sales manager needs to monitor and direct the salesforce in selling existing and new products. In order to build long term relationships with the customer, the sales manager must stimulate new product adoption by salespeople.

In addition, sales managers must ensure that the salesforce achieve their short-term objectives by continuing to sell existing products in order to have sufficient funds to finance emerging opportunities (Atuahene-Gima, 1997). Furthermore, the salesforce needs to sell enough new products, since the survival and growth of the company will benefit from this on the long-term (Cohen, Eliashberg, and Ho, 1997; Okada, 2006).

After providing insights on salespeople’s new product adoption the following section focuses on the relation between salespeople’s new product adoption and sales manager’s personality traits.

1.2 Sales manager’s personality traits

Sales managers have a major effect on salespeople. They are responsible for many duties, including performance evaluation, promotion, authorizing raises, assigning territories, training, and providing leads (Rich, 1997). Empirical evidence suggest that if sales managers want to successfully introduce new products that salespeople will adopt, sales managers need to control their behavior at work (Hultink and Atuahene-Gima, 2000). Anderson and Robertson (1995) explain that sales managers need to pay attention to their salespeople, stress the new product, downplay drawbacks, and use personal influence to stimulate salespeople’s effort and commitment to these new products. Besides, salespeople have a tendency to adopt
the goals of the sales manager together with his or her positive attitudes and work habits. Therefore, if sales managers want to influence the behavior of their salespeople this can be accomplished by their own actions. By providing examples and patterns that are worth imitating and by creating values and beliefs that are in line with organizations goals and objectives, sales managers can persuade salespeople to adopt new products and improve their sales performance and job satisfaction (Rich, 1997).

Sales performance is defined as “the degree to which the salesperson meets the sales targets, customers use targets, and other objectives set for the new product” (Atuahene-Gima, 1997, p. 510). Job satisfaction is defined as “the salesperson’s pleasurable emotional state that he/she derives from a positive appraisal of interactions and activities of the job of selling the new product” (Atuahene-Gima, 1997, p. 510).

Therefore, it is important to become a successful and reliable leader in order to sustain company survival and growth (Rich, 1997).

Personality is considered by literature as an important predictor for salespeople’s sales performance and job satisfaction (Barrick and Mount, 2005). In specific settings, such as sales and management; Extraversion, Openness and Agreeableness are valid predictors for performance. In occupations, such as sales and management, where interacting with others and obtaining status and power is a significant proportion of the job, extraversion has been found to related to sales performance. Sales and management are jobs, where it is important to be sociable, gregarious, assertive, energetic and ambitious (Barrick and Mount, 2005).

Mount et al. (1998) investigated the influence of sales manager’s personality traits onto the whole salesforce and has found that the influence of sales managers’ personality traits becomes stronger in informal settings, like selling new products, and environmental influences are weaker.
However, to properly guide salespeople to adopt new products, the role of the sales manager may be of great importance. Given the non-routine, idiosyncratic and a-structural nature of new product introductions, the role of the sales manager’s personality seems of relevance. Therefore, it would be interesting to examine what influence the personality of the sales manager can have on the behavior of salespeople and its effect on selling new products, since little is known about the influence of the sales manager’s personality on salespeople’s new product adoption. By examining the Big-Five personality traits of the sales manager, this study aims to investigated if the sales manager’s personality can change the behavior of salespeople and persuade salespeople to adopt new products. Therefore, we state the following research questions:

**R.Q:** What specific sales manager’s personality traits are effective in stimulating new product adoption by salespeople?

This main research question can be divided into three sub questions:

**S.Q 1:** What sales manager’s personality traits positively affects the adoption of innovations by salespeople?

**S.Q. 2:** What influence has the adoption of innovations by salespeople on their sales performance?

**S.Q. 3:** What influence has the adoption of innovations by salespeople on their job satisfaction?
1.3 Contribution

Research relating the sales manager’s personality in the context of adopting and selling new products is limited. This study strives to extend the body of knowledge and provide new conceptual insights.

1.4 Outline

Chapter 2 presents an overview of the theoretical background on salespeople’s new product adoption and provides insight on drivers affecting salespeople’s new product adoption. Chapter 3 presents a new conceptual model based on the original conceptual framework of Atuahene-Gima (1997) conceptualizing the influence of the sales managers personality on salespeople’s new product adoption by adding the Big-Five personality traits. Chapter 4 presents the methodology that provides insight on the survey, measures, factor analysis, social desirability bias and multiple regression. Chapter 5 presents the results that were found during this study. Chapter 6 provides the conclusion based on the results that were found in chapter 5, but also discusses the limitations of this present study, the managerial implications as well as a number of possible future research directions.
2. Theoretical background

Few empirical studies have focused on new product adoption by salespeople, especially in the new product selling context (Hultink and Atuahene-Gima, 2000). Salespeople can be viewed as the first line of customers that need to adopt new products introduced by the organization. As salespeople adopt these new products, they become responsible for selling these products to end customers. But several drivers affect new product adoption by salespeople. Therefore section 2.1 provides insight on the theoretical background of new product adoption by salespeople. Second, section 2.2 presents the drivers that were found during the literature review that affect new product adoption by salespeople (Ramon van Ingen, 2013).

2.1 New product adoption

The word “innovation” is derived from the Latin word novus or “new”, and is alternately defined as “a new idea, method or device” or “the process of introducing something new” (Gopalakrishnan and Damanpour, 1994, p.556). Therefore, adoption of innovation is taking over a new idea, method or device.

Several empirical studies were found on new product adoption decisions (e.g. Hultink and Atuahene-Gima, 2000; Fu et al. 2010; Rochford and Wotruba, 1996 and Frambach et al., 1998). To ensure that end customers buy new products introduced by the organization, salespeople are responsible for end customer to adopt these innovation and thereby the success of these new products (Hultink and Atuahene-Gima, 2000). The decision to put forth the effort and commitment necessary to sell these new products rest on salespeople’s attitude and behavior and will impact their new product selling performance. To achieve higher levels of new product selling performance salespeople need to exhibit commitment and effort simultaneously.
Since, it is interesting to get some insight on which drivers affect new product adoption by salespeople, the conceptual framework of Atuahene-Gima (1997) is presented next. Atuahene-Gima (1997) did empirical research on drivers affecting new product adoption by salespeople with respect to its relation with salespeople’s sales performance and job satisfaction.

### 2.2 The Conceptual framework of Atuahene-Gima (1997)

The conceptual framework of Atuahene-Gima (1997) provides an overview of drivers that influence salespeople’s new product adoption (see figure 1). The drivers can be categorized into four containers, which are: (1) salesperson characteristics, (2) organizational factors, (3) sales control systems and (4) sales manager support.

**Figure 1: The conceptual framework of Atuahene-Gima (1997)**
2.2.1 Salesperson characteristics

Salesperson Characteristics consists of four drivers; goal orientation, problem-solving style, career success and sales experience (Atuahene-Gima, 1997). Several empirical studies were found (e.g. Judge, Higgins, Thoresen, and Barrick, 1999; Arthur, Khapova and Wilderom, 2005; Anderson and Robertson, 1995) that investigated the drivers career success and sales experience. On goal orientation and problem-solving style no empirical studies were found.

Sales experience. Salespeople that gain more experience throughout the years of selling existing products to their customers, often settle into fixed routines, to cope with the demands of the customer. These fixed routines become difficult to change for the salespeople themselves and sales management. Anderson and Robertson (1995) did research on sales experience. They argue that as salespeople accumulate experience, they settle into routines that become extremely difficult to change (Cron, 1984; O’Hara, Boles, and Johnston, 1990). It is among less experienced salespeople that sales-related attitudes and behaviors are more flexible. This means that more experienced salespeople will less likely adopt an innovation.

Career success. Literature distinguishes between salespeople, who are successful throughout their sales career and salespeople, who still need to establish a sales career (Cron, 1984). Anderson and Robertson (1995) did empirical research on career success. They suggest that career successful salespeople have fewer difficulties to adopt innovations introduced by sales management than less successful salespeople, who still need to establish a sales career. Career successful salespeople have more prior mobility and with this experience they are more confident to sell new products to their customers. These career successful salespeople have long-term relationships with their customers and are therefore less concerned about the risks involved in losing their customers (Anderson and Robertson, 1995).
2.2.2 Organizational factors

Organizational Factors defined as "factors within the organization", which consists of four drivers: Firm commitment to innovation, failure management, speed of product innovation and conflict in new product development process (Atuahene-Gima, 1997, p.505). Only firm commitment to innovation will be explained in this section, since no empirical studies were found on failure management, speed of product innovation and conflict in new product development process.

Firm commitment to innovation. Hassan (2011) did qualitative research on Firm Commitment to Innovation (no sample size). For organizational drivers Hassan (2011) states that nearly every business confronts unanticipated shifts in technologies and markets, major disruptions in traditional business models, pressure from customers, suppliers, and competitors. When it comes to strategy, he says that the hardest thing about strategy is its execution. How well defined sales managers understand the company’s strategy and their own specific role in it, will in a large part determine whether that strategy is successful. It is important for sales managers to align the salesforce with the company’s strategy in order to maintain company growth and survival and increase salesforce commitment towards selling the new products (Cohen, Eliashberg, and Ho, 1997; Okada, 2006).

2.2.3 Sales control systems

Sales Control Systems defined as “by management designed system to control the behavior and/or output of salespeople” consists of the drivers behavior control and output control (Atuahene-Gima, 1997, p. 508).

Behavior control systems. Cravens et al. (2002) did empirical research on behavior control systems. They say that behavior control systems are implemented by management in order to seek influence in activities that are considered important for achieving the desired
sales goals (Cravens et al. 2002). This form of control system provides feedback from the manager concerning salespeople’s work, encourage cooperation and information sharing, and create an environment of shared values and beliefs (Cravens et al. 2002).

*Output control systems.* Cravens et al. (2002) say that output control systems are a result of setting performance standards that are monitored and evaluated by sales managers. They say that leveraging their efforts and skills, salespeople produce results that indicate their outcome performance (Cravens et al. 2002).

As a conclusion Cravens et al. (2002) argue that high levels of behavior and outcome control are expected to positively affect job satisfaction by salespeople and increase salespeople’s commitment to the organization, which is important when organizations want salespeople to sell new products.

### 2.2.4 Sales manager support

Sales Manager Support can be defined as “*the behavior of sales managers in new product adoption by salespeople*” and consists of internal marketing of new product, feedback giving by sales manager and training (Atuahene-Gima, 1997, p. 506).

*Internal marketing of new product.* Damanpour and Schneider (2008) did research on Internal Marketing of New Product. This study has a relative large sample size N of 1.276. They explain that in general, managers’ proinnovation attitude or managerial innovation orientation positively affects innovation adoption, which can be seen as internal marketing of the new products. For example, innovation in information technologies in both public and private sectors managers facilitate the employees’ new product adoption by having a proactive orientation towards this new product adoption (Moon and Bretschneider, 2002; Thong and Yap, 1995).
Feedback giving by sales managers. Cravens et al. (2002) found that sales managers who implemented sales control systems provide feedback to salespeople on their activities and results by monitoring, directing and evaluating their activities in order to improve their sales performance, which includes selling new products.

Training. Kamel et al. (2003) found that sales managers who introduce new products create a strategy where they use training in order to stimulate the salesforce to sell these new products together with new sales quotas, salesforce compensation, salesforce organization and salesforce motivation.

After providing a clear view of the relation between each driver on salespeople’s new product adoption, a gap can be identified within the conceptual framework of Atuahene-Gima (1997). Given that new products are non-routine, idiosyncratic and a-structural of nature, salespeople need guidance during adopting these new products. Sales managers may be of great importance in this situation, by properly guiding salespeople’s new product adoption. As described by Atuahene-Gima (1997) the behavior of the sales manager is important and therefore the personality of the sales managers seems to be relevant and can play an important role when it comes to persuading salespeople to adopt new products.

To following chapter provides insight on the sales manager’s personality by defining each personality trait and explains why personality is important and what influence it has on the behavior of salespeople.

### 2.3 Big-Five personality traits

Personality, which consists of the Big-Five personality traits, has turned out to be a valid predictor for job performance and explains behavior at work. It is likely to be a basis for determining how the person interacts or is motivated (Barrick and Mount, 2005). The Big-Five personality traits can have a significant effect in team settings, especially extraversion,
agreeableness and openness are valid predictors for performance, but only in specific niches, such as sales and management. Barrick and Mount (2005) investigated the role of personality in team settings. Results from their research shows that team member’s personality traits influences group processes. They suggest that a person’s personality traits can change situations. For example, a person low on agreeableness or high on neuroticism can be seen as “a bad apple“ in a team and change the working environment (Barrick and Mount, 2005).

Mount et al. (1998) identified that personality characteristics are associated with effective teamwork. They suggest that conscientiousness, agreeableness and emotional stability (counter trait neuroticism) were found relevant for jobs involving interaction with others.

The following subsections provide empirical findings and insight of the influence of each Big-Five personality trait on salespeople’s sales performance and job satisfaction. These sections clarify the fact that personality traits can have an effect on salespeople’s sales performance and job satisfaction.

2.3.1 Extraversion

Denissen and Penke (2008) define extraversion as “a tendency to engage and enjoy social attention” (Denissen and Penke, 2008, p. 1287). Salespeople high in extraversion want to excel themselves from others and have the desire to obtain rewards. In jobs, such as management and sales, being sociable, gregarious, assertive, energetic and ambitious is likely to contribute to sales performance (Barrick and Mount, 2005). Extraversion has been found positively related to occupations, where a significant portion of the job involves interacting with others. Especially when that interaction is focused on obtaining status, power and influencing others (Barrick and Mount, 2005). In the selling new product context, this is of importance. Mount et al. (1998) found that extraversion is important when it comes to stimulating the salesforce on adopting innovations. They say that sales managers need to be
extraverted in order to stand above the salesforce, be conspicuous and overbearing, because they need to direct the salesforce in new product adoption and monitor them during the sale of these new products (Mount et al, 1998). Furthermore, extraverts tend to work well with others, are motivated, and behave in ways that result in more positive emotional states, which can lead to greater job satisfaction (Barrick et al. 1998). When extraverted salespeople have the desire to get ahead of others, they are highly motivated and achieve their goals, such as excelling themselves relatively to others, which often results in obtaining rewards, like bonuses or raises (Barrick, Piotrowski, and Stewart, 2002). It also may lead to an increase in selling new products, because extraverted salespeople want to excel themselves from others, and are likely to focus more on selling these new products, especially when combined with incentives.

### 2.3.2 Conscientiousness

Conscientiousness is one of the five personality traits that has been found to have the most consistent and the strongest relationship with performance in work environments and can be generalized across job settings (Barrick et al., 1998). Barrick and Mount (2005) refer conscientiousness as “the willingness to follow rules and exert effort” (Barrick and Mount, 2005, p. 360). Conscientious salespeople are expected to perform at a higher level, since conscientious salespeople are more persevering and disciplined. Salespeople high in conscientious seek to fulfill their goals and obligations. Highly conscientious salespeople are more likely to set goals and are committed to these goals. This results in salespeople aiming for higher supervisory ratings of sales performance, which leads to creating higher sales volumes and aiming for higher sales goals (Barrick et al., 2002). In jobs involving interpersonal interaction conscientiousness will facilitate performance, especially when hierarchical control is reduced and self-discipline is increased (Barrick and Mount, 2005).
Conscientiousness is positively associated with being involved in work-related behaviors, as well as the capacity for reliable work and enduring commitment. Conscientiousness is one of two personal traits used in the empirical research of Mount et al. (1998) to predict performance in jobs involving interaction with others. Also, regardless of the team member’s specific role, task, or relationship with other team members, greater conscientiousness in the team should help each team member to contribute more to the overall team outcome. This means that higher team performance should be associated with higher mean levels of team members’ conscientiousness (Barrick et al., 1998). Therefore, sales managers can stimulate salespeople’s new product adoption and sales performance by being conscientious.

2.3.3 Agreeableness

Agreeableness only matters when interaction between team members involves helping, cooperating and nurturing others. Agreeableness is defined as “*being good-natured, compliant, modest, gentle and cooperative*” (Roccas et al. 2002, p.792). Barrick and Mount (2005) indicate that agreeableness is a necessary trait for high performance in team settings. Salespeople high in agreeableness are able to work more together cooperatively in a team. Because cooperation improves the ability to work together the very essence of agreeableness is cooperation. Agreeableness is positively associated with fostering intimate relationships. Agreeable people care about the welfare of people with who has personal contact. High agreeable salespeople are less likely to be competitive. Sales management can initiate aligned goals for salespeople to achieve, so they will work more together and will be less competitive. Barrick and Mount (2005) found that sales managers need to be agreeable in order to help and guide salespeople and stimulate salespeople to sell new products (Barrick and Mount, 2005). Agreeableness is (together with conscientiousness) one of two predictors used in the empirical
research of Mount et al. (1998) to predict sales performance in jobs involving interaction with others.

### 2.3.4 Openness

Openness is defined as “being intellectual, imaginative, sensitive, and open-minded” (Roccas et al. 2002, p. 792/793). Openness has been found positively related to creativity and to influence the ability to adapt to change (Barrick and Mount, 2005). Salespeople high in openness are often self-disciplined on motivational goals, open for new ideas and experiences, and appreciative (Roccas et al. 2002). To ensure new product adoption by salespeople, sales managers need to be open to new experiences and not only sell the benefits of a new product to the salesforce, but also to themselves. Convinced of its importance and benefits to themselves, to the organization, and to the customer, the salesforce will be more confident to recommend the new product to customers. This means that sales managers high in openness enhance salespeople’s new product adoption and willingness to sell new products (Hultink and Atuahene-Gima, 2000)

### 2.3.5 Neuroticism

Neuroticism is defined as “being anxious, depressed, angry, and insecure” (Roccas et al. 2002). Higher levels of neuroticism will lead to lower team work, to a tenser atmosphere that will decrease the capability to work together (Barrick et al., 1998). People high in neuroticism are less likely to set goals, have lower expectations that effect their effort, which results in unfavorable consequences, such as thinking they can do less (have lower self-efficacy) than actually is the case. People high in neuroticism will have lower performance than those people who are emotional stable. This can lead to salespeople not willingly to putting in the effort to sell new products, since they are not motivated to sell these new products. Meaning that sales
managers high in neuroticism can effect salespeople’s new product adoption. Therefore, neuroticism is the only personality trait that is not appropriate for a sales manager to possess.

This chapter explained that the framework of Atuahene-Gima (1997) is relevant for this study, since new product adoption is influenced by different drivers, such as sales person characteristics, organizational factors, sales control systems and especially sales manager support. The primary focus for this study within this framework is sales manager support. This container shows that sales managers can have a great influence on salespeople’s new product adoption with their behavior and by having certain personality traits. All of these personality traits enhance new product adoption by salespeople expect neuroticism. Since sales managers attitude can have a great influence, it is interesting to go more in-depth and examine if the sales manager’s personality can have an influence on the behavior of salespeople and stimulate salespeople’s new product adoption by testing the new conceptual model.
3. New conceptual model and hypotheses

After discussing the theoretical background whereby the original conceptual framework of Atuahene-Gima (1997) was presented, a new conceptual model is based on this original conceptual framework within this present study. The reason for this new conceptual model is to extend the original framework of Atuahene-Gima, because a gap was found in the container sales manager support. This new conceptual model will be focused on the Big-Five personality traits of the sales manager’s personality and its effect salespeople’s new product adoption, since limited research was found on the role of the sales manager within the selling new products context. Hypotheses were formulated to investigate the effect of the Big-Five personality traits on new product adoption by salespeople with respect to their sales performance and job satisfaction.

3.1 New conceptual model

As can be seen in figure 2 the Big-Five personality traits of the sales manager were included in the new conceptual model. To investigate the influence of each personality trait, hypotheses were formulated on each element (effort and commitment) that make up new product adoption by salespeople (see section 3.2). Besides examining the influence of each personality trait it is interesting to investigate the relation between salespeople’s new product adoption and their sales performance and job satisfaction. Therefore, hypotheses were formulated to investigate the effect of salespeople’s new product adoption on their sales performance and job satisfaction.
Figure 2: New conceptual model based on the original framework of Atuahene-Gima (1997).

This new conceptual model (figure 2) extents the original framework of Atuahene-Gima (1997) and conceptualizes the influence of the personality of the sales manager on salespeople’s new product adoption.
3.2 Hypotheses

This section discusses a new framework of Atuahene-Gima (1997), which conceptualizes the influence of the sales manager’s personality on salespeople’s new product adoption.

The first trait of the Big-Five personality theory is extraversion. Mount et al. (1998) did research on the personality trait extraversion. They say that less extraverted salespeople tended to fade into the background and were therefore less conspicuous and overbearing. For sales managers the opposite is true. Sales managers need to be extraverted to stand above the salesforce, be conspicuous and overbearing, because they need to stimulate new product adoption by salespeople and monitor them during the sales of new products. So if sales managers are extraverted, salespeople may tend to become more extraverted. This may enhance new product adoption, since salespeople high in extraversion want to excel themselves from others and can achieve this by putting in more effort and commitment in selling new products. Therefore, the sales manager needs to be extraverted in order to stimulate new product adoption by salespeople and guide them effectively to adopt and sell these new products. Therefore, the following hypotheses can be formulated:

\[ H1a: \text{The sales manager’s level of extraversion relates positively to new product adoption dimension effort by salespeople.} \]

\[ H1b: \text{The sales manager’s level of extraversion relates positively to new product adoption dimension commitment by salespeople.} \]

The second trait of the Big-Five personality theory is openness. Openness has been found to be related to creativity and to influence the ability to adapt to change (George and Zhou, 2001; LePine, Colquitt, and Erez, 2000). Sales managers need to be open to new experiences. They need to sell the benefits of a new product not only to salespeople, but also to themselves. Given the potentially adverse effects of a new product introduction on current activities of
salespeople, such as selling existing products to current customers, they must not only be convinced of its strategic importance to the organization, but also to the benefits of adoption to themselves. Salespeople will be more confident to recommend the new product to customers when sales managers are convinced of the importance and benefits of new products and therefore focus more on effort and commitment in adopting and selling these new products (Hultink and Atuahene-Gima, 2000). Therefore, the following hypotheses are formulated.

H2a: The sales manager’s level of openness relates positively to new product adoption dimension effort by salespeople.

H2b: The sales manager’s level of openness relates positively to new product adoption dimension commitment by salespeople.

Conscientiousness is the third factor concerning the Big-Five personality theory. Conscientious people are goal-oriented, careful, reliable, hardworking, punctual, ambitious, energetic, intelligent and striving persons. The sales manager’s core responsibility is the supervision and control of the workflow input and output and the related functions at that level, like controlling for the sales of new products (Rabey, 2008). By being conscientious as a sales manager, the sales manager can show its salesforce to become organized, planful, achievement oriented and persistent, which can be worth imitating by salespeople, leading to more focus on effort and commitment on adopting and selling these new products. Therefore, the following hypotheses can be formulated:

H3a: The sales manager’s level of conscientiousness relates positively to new product adoption dimension effort by the sales force.

H3b: The sales manager’s level of conscientiousness relates positively to new product adoption dimension commitment by the sales force.
Agreeableness is the fourth traits of the Big-Five personality theory. Agreeableness has been found to be an important predictor in jobs that involve significant interpersonal interaction, especially when it matters to helping, cooperating and nurturing others (Mount et al., 1998). Agreeable people are helpful, friendly, warm, trusting, and tolerant. In fact, the very essence of agreeableness is cooperation. The more agreeable the sales manager is, the more likely the salesforce and sales manager can work cooperatively. This is important when it comes to the adoption and sales of new products. A sales manager, who is disagreeable may also be enough to destroy the team’s capability to work cooperatively, regardless of the level of agreeableness of the salesforce. Furthermore, this can lead to the possibility that interpersonal relationships within the team are destroyed (Barrick, Stewart, Neubert, and Mount, 1998). Therefore, sales managers need to be agreeable instead of being disagreeable, since disagreeable sales managers can have an effect on the salesforce and lead to resistance on new product adoption by salespeople. Therefore, the following hypotheses can be formulated:

\[ H_{4a}: \text{The sales manager’s level of agreeableness relates positively to new product adoption dimension effort by the sales force.} \]

\[ H_{4b}: \text{The sales manager’s level of agreeableness relates positively to new product adoption dimension commitment by the sales force.} \]

The final trait of the Big-Five personality theory is Neuroticism. People high in neuroticism are viewed as negatively emotional, and experience a variety of negative emotions, such as anger, anxiety, depression and embarrassment (McCrae and Costa, 1987). When sales managers are emotional unstable, so who are, depressed, angry, emotional, worried and insecure will have an influence on salespeople’s new product adoption, since salespeople need to have a sales manager, who is confident, able to guide and needs to be emotional stable. Especially, since sales managers have an exceptional leverage on new product adoption by salespeople. Meaning that sales managers that are high on neuroticism will affect
salespeople’s new product adoption. Salespeople may lose their motivation and willingness to adopt and sell new products. Therefore, the following hypotheses can be formulated:

\( H5a: \) The sales manager’s level of neuroticism relates negatively to new product adoption dimension effort by the sales force.

\( H5b: \) The sales manager’s level of neuroticism relates negatively to new product adoption dimension commitment by the sales force.

Salespeople see new product adoption as a challenge in itself. They become more motivated to work hard, smart and devote time to persist in achieving goals set by management. Difficult goals often lead to more effort and commitment devoted by salespeople in adoption and selling these new products, which will increase their new product sales. This will result in higher sales performance in the end (Atuahene-Gima, 1997; Lee, Sheldon, and Turban, 2003). Therefore, the following hypotheses can be formulated:

\( H6a: \) The higher the level of effort of salespeople’s new product adoption, the higher is their level of sales performance.

\( H6b: \) The higher the level of commitment of salespeople’s new product adoption, the higher is their level of sales performance.

New products often have more challenges to offer compared to existing products. This enhances salespeople’s motivation and satisfaction, since new product adoption requires new and more advanced skills, which can be a desired job characteristic by salespeople.

Salespeople see new product adoption as more challenging. This can lead to salespeople performing it more willingly by focusing more on effort and commitment in achieving to sell these new products (Atuahene-Gima, 1997; Clark et al. 1996). This means that new product adoption itself can enhance salespeople’s motivation and can lead to greater job satisfaction. Therefore, the following hypotheses can be formulated:

\( H7a: \) The higher the level of effort of salespeople’s new product adoption, the higher the
level of job satisfaction is by salespeople.

H7b: The higher the level of commitment of salespeople’s new product adoption, the higher the level of job satisfaction is by salespeople.

After formulating each hypotheses chapter 4 presents the methodology. It is important to create a clear view on the sample and procedures, where all the steps are presented that were executed during this study. Furthermore, chapter 4 provides insights in the survey, measures, social desirability, confirmatory factor analysis and the multiple regression analysis.
4. Methodology

Psychometrics is a research area where knowledge, behavior and personality traits are investigated. This chapter discusses the methodology for researching sales manager’s personality traits and its impact on salespeople’s new product adoption.

4.1 Sample and procedure

To test the new conceptual model data was needed. This data was collected over a period of 8 months at M2Desk, Zoetermeer, The Netherlands. M2Desk is a new and innovative company located in Zoetermeer, the Netherlands. This company is introducing its new products, like M2Desk Classic, M2Desk-Flex and Semi Permanent Cabling (SpC) into the market and is relatively growing in the field of education. This company is suitable for this research, since salespeople have freedom to adopt these new products and sell these new products in foreign countries, such as France, Germany, England, Indonesia etc.

These dealers have between 1 to 15 sales employees that are responsible for selling M2Desk products. These dealers were located mainly in the Netherlands, but also in Europe, such as The United Kingdom, France, Germany, Italy, Sweden and even Indonesia. The result of 51 completed surveys, which is a response rate of 29.5% was achieved by having two email reminders and two phone calls to each respondent. These 51 completed surveys were sufficient, since Hair (2010) explains that the minimum number of respondents for a reliable and valid data set is 50 respondents or depending on the number of variables with a minimum of 5 respondents per variable. The new conceptual model provided in chapter 3 consists of 9 variables, meaning that the minimum sample size required is 45 according to Field (2009). In the following tables insight is provided on the sample used during this study. First of all, gender is taken into account during this study. As can be seen in Table 1 it is
interesting to see that more than 80% of the respondents is male. From this sample it can be indicated that more men are working in sales jobs than women.

Second, the age of salespeople was examined, which is also indicated in Table 1. This table shows that the majority of salespeople are between 20 and 50 years of age.

Third, the sales manager’s age was examined as can be seen in Table 2. This table shows that most sales managers are between 40 and 60 years of age.

Finally, the work experience of sales managers was examined, indicating the period of the sales manager being in his function as a sales manager to direct, monitor and control his or her salesforce (current and previous) at that particular moment in time. It is clear that the majority of sales managers have more than 20 years of work experience. Damanpour and Schneider (2008) emphasize that sales managers experience is a U-shaped model. Young sales managers with insufficient familiarity with the organization and its products will negatively influence innovations, since they fear for critical issues that may arise during the

### Table 1. Salespeoples’ age categorized by gender

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
<th>Total:</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 20 years</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>20 – 30 years</td>
<td>15</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>30 – 40 years</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>40 – 50 years</td>
<td>7</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>50 – 60 years</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>&gt; 60 years</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total:</td>
<td>40</td>
<td>9</td>
<td>49</td>
</tr>
</tbody>
</table>

### Table 2. Sales managers’ age categorized by sales managers’ work experience

<table>
<thead>
<tr>
<th>Work Experience</th>
<th>0 – 5 years</th>
<th>5 – 10 years</th>
<th>10 – 15 years</th>
<th>15 – 20 years</th>
<th>&gt; 20 years</th>
<th>Total:</th>
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<tbody>
<tr>
<td>20 – 30 years</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>30 – 40 years</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>40 – 50 years</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>13</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>50 – 60 years</td>
<td>1</td>
<td>5</td>
<td>8</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 60 years</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total:</td>
<td>2</td>
<td>9</td>
<td>7</td>
<td>3</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>
innovation adoption and have no experience how to resolve them. Older sales managers with more experience over a long period of time will negatively affect innovations by organization, since they work according organizational routines and practices and do not want to change the status quo.

4.2 Survey

The online survey consists of 51 items based on scales used from 3 different empirical studies, the Five Individual Reaction Norms Inventory (FIRNI) provided by Denissen and Penke (2008) for the sales manager’s personality traits, Hultink and Atuahene-Gima (2000) for new product adoption and sales performance, and Seong Do Cho (2008) for job satisfaction (see Appendix B). Participants received an email with instructions for the location of the online survey and instructions were provided on how to fill out the survey online (see Appendix A).

The first measurement part of the survey measures the sales manager’s personality based on 25 items from the FIRNI provided by Denissen and Penke (2008). Factor loadings and communalities measures were used, since a factor loading indicates the loading of the variable on the factor. Communalities indicate the amount of common variance on a factor (Field, 2009). A selection was made for the survey based on the highest values on factor loadings and communalities (Field, 2009). Openness, conscientiousness, extraversion, agreeableness and neuroticism were measured by a 5 point Likert scale from “strongly disagree (1)” thru “strongly agree (5)” (Denissen and Penke, 2008).

The second measurement part was based on salespeople’s new product adoption. Hultink and Atuahene-Gima (2000) provided items within their research that also can be used for this study. New product adoption is made up by two elements: Commitment and Effort. Two different scales were used to measure new product adoption by salespeople.
Commitment was measured by items from Hultink and Atuahene-Gima (2000) with a 5 point Likert scale from “strongly disagree (1)” thru “strongly agree (5)”, while effort was measured from with a 5 point Likert scale from “much less (1)” thru “much more (5)”. Sales performance was measured by items from the study of Hultink and Atuahene-Gima (2000) with a 5 point Likert scale from “too little extent (1)” thru “too much extent (3)”. Seong Do Cho (2008) provided measurement items for job satisfaction. Job satisfaction was measured by a 5 point Likert scale from “strongly disagree (1)” thru “strongly agree (5)” (Seong Do Cho, 2008).

Finally, four control variables were included into the survey, which are sales managers’ age, sales managers’ work experience, salespeoples’ age and gender. These four control variables were included in the survey as four open question. These control variables are necessary, because during each scientific experiment some elements need to be held constant and must not change throughout an experiment. These four control variables can be held constant throughout the scientific experiment, thereby not affecting the independent variable and not affecting the outcome of the experiment.

To provide insight of the items included in the survey, a clear view of the measures will be provided next.

### 4.3 Measures

In order to test the new conceptual model, each dimension of the new conceptual model needs to be investigated. This was done by the means of a survey that measured the influence of each Big-Five personality trait on salespeople’s new product adoption. This section provides a clear overview of how each dimension was measured.
4.3.1 Sales manager’s personality

The sales manager’s personality can be derived from the Big-Five personality traits, which are openness, conscientiousness, extraversion, agreeableness and neuroticism. The items in the survey were formulated based on situational features whereon salespeople can evaluate the personality of the sales manager. This survey provides a signature of the sales manager’s personality. These items originated from FIRNI provided by Denissen and Penke (2008). The items were adapted to the context of this study. This change is discussed in each section.

4.3.1.1 Openness measures

To investigate sales manager’s openness for new experiences, items were formulated to measure this trait. These items originated from FIRNI by Denissen and Penke (2008). In total 5 items were selected based on the highest factor loadings and communalities to measure openness. An example of an item measuring openness is: *He loves to think about complex issues such as the purpose of life or world affairs.* This item was slightly changed by replacing the “i” by “he”, so that the item falls within the context of this study and salespeople could evaluate the personality of the sales manager.

4.3.1.2 Conscientiousness measures

To investigate sales manager’s conscientiousness, 5 items were formulated to measure this trait. These items originated from FIRNI by Denissen and Penke (2008). In total 5 items were selected based on the highest factor loadings and communalities to measure conscientiousness. An example of an item measuring conscientiousness is: *When he has set a goal he pursues it very persistently.* This item was slightly changed by replacing the “i” by “he”, so that the item falls within the context of this study and salespeople could evaluate the personality of the sales manager.
4.3.1.3 Extraversion measures

To investigate sales manager’s extraversion, 5 items were formulated to measure this trait. These items originated from FIRNI by Denissen and Penke (2008). In total 5 items were selected based on the highest factor loadings and communalities to measure extraversion. An example of an item measuring extraversion is: Interacting with people generally gives him a lot of energy. This item was slightly changed by replacing the “i” by “he”, so that the item falls within the context of this study and salespeople could evaluate the personality of the sales manager.

4.3.1.4 Agreeableness measures

To investigate sales manager’s agreeableness, 5 items were formulated to measure this trait. These items originated from FIRNI by Denissen and Penke (2008). In total 5 items were selected based on the highest factor loadings and communalities to measure agreeableness. An example of an item measuring agreeableness is: He would rather share something than to compete with other people having it all himself. This item was slightly changed by replacing the “i” by “he”, so that the item falls within the context of this study and salespeople could evaluate the personality of the sales manager.

4.3.1.5 Neuroticism measures

To investigate sales manager’s neuroticism, 5 items were formulated to measure this trait. These items originated from FIRNI by Denissen and Penke (2008). In total 5 items were selected based on the highest factor loadings and communalities to measure neuroticism. An example of an item measuring neuroticism is: When he meets with colleagues he sometimes has the feeling that they talk badly about him afterwards. This item was slightly changed by replacing the “i” by “he”, so that the item falls within the context of this study and salespeople could evaluate the personality of the sales manager.
4.3.2 Adoption of new products by salespeople


To investigate the level of commitment of salespeople 5 items were stated. These items originated from the survey presented in Hultink and Atuahene-Gima (2000). For example: “achieving objectives for this new product has a great deal of personal meaning for me” or “I feel a strong sense of duty to ensure the success of this new product” are 2 items that were used in the survey to measure the level of commitment of salespeople.

To investigate the level of effort of salespeople 5 items were stated. For example, “compared to other products you have sold, how much effort did you devote to this new product in prospecting for customer” or “compared to other products you have sold, how much effort did you devote to this new product in collecting market information” are 2 items that were used in the survey to measure the level of effort of salespeople.

4.3.3 Outcome variable: Sales performance by salespeople

In order to measure salespeople’s sales performance 6 items were formulated. These items originated from Hultink and Atuahene-Gima (2000). Items, such as “to what extent have you been successful in gaining significant market share for new products” or “to what extent have you been successful in generating high levels of sales volume for new products” were 2 items used in the survey to measure the sales performance of salespeople. Hultink and Atuahene-Gima (2000) suggest that new product adoption should lead to higher sales performance. Employees who are committed to the organization work hard and smart and do achieve their sales objectives (Atuahene-Gima, 1997).
4.3.4 Outcome variable: Job satisfaction by salespeople

Salespeople’s job satisfaction was measured by 7 items that originated from the survey provided by Seong Do Cho (2008). Items, such as “I’m proud of my job” or “I am satisfied with the opportunity that my job gives me” were 2 items used in the survey to measure job satisfaction of salespeople.

4.4 Social desirability bias

Research in the field of psychometrics researchers needs to deal with social desirability bias. According to Podsakoff, MacKenzie, Lee, and Podsakoff (2003) and Crowne and Marlowe (1964) social desirability refers to “the need for social approval and acceptance and the belief that it can be attained by means of culturally acceptable and appropriate behaviors” (Podsakoff, MacKenzie, Lee and Podsakoff, 2003, p. 881). Sales managers often present themselves better than actually is the case. For managerial implications, this can cause problems, since if surveys are filled out by sales managers themselves, data can be biased (i.e. change in mean levels of the response), therefore let salespeople assess the sales managers.

Literature explains that the method to solve social desirability bias is the use of acquaintances (salespersons) to research personality traits at targets (Beer and Watson, 2008). Beer and Watson (2008) investigated that as people get to know each other, they become better judges of each other’s personality. Also, Harkness, Tellegen, and Waller (1995) found an extensive body of evidence supporting this notion and can therefore expect moderate to strong correlations between a well-acquainted individual’s rating of a target individual and that target’s individual’s self-rating (Harkness, Tellegen, and Waller, 1995).
4.5 Factor Analysis

In this study Factor Analysis (FA) was used to determine if the psychometric measurement quality of the constructs were sufficient to investigate the hypotheses (Field, 2009). First, the Big-Five personality traits of the sales manager, which are extraversion, conscientiousness, openness, agreeableness and neuroticism were examined containing 25 items. Second, new product adoption, sales performance and job satisfaction were examined containing 22 items.

First, all the Big-Five traits consisted of 5 items per trait (i.e., Ex1 to Ex5). Communalities measured for all 25 items were all sufficient, except for Ex4, Con3, Open1, Open4, Agree5, Neuro1 and Neuro5, which were below the cut-off point of 0.5.

Table 3. Results factor analysis for the Big-Five personality traits

<table>
<thead>
<tr>
<th></th>
<th>Extraversion</th>
<th>Conscientiousness</th>
<th>Openness</th>
<th>Agreeableness</th>
<th>Neuroticism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex3</td>
<td>0.858</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex2</td>
<td>0.826</td>
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</tr>
<tr>
<td>Ex5</td>
<td>0.803</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex1</td>
<td>0.755</td>
<td></td>
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</tr>
<tr>
<td>Con2</td>
<td></td>
<td>0.847</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Con5</td>
<td></td>
<td>0.789</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Con1</td>
<td></td>
<td>0.771</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Con4</td>
<td></td>
<td>0.760</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open2</td>
<td></td>
<td></td>
<td>0.834</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open5</td>
<td></td>
<td></td>
<td>0.809</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open3</td>
<td></td>
<td></td>
<td>0.606</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree4</td>
<td></td>
<td></td>
<td></td>
<td>0.808</td>
<td></td>
</tr>
<tr>
<td>Agree3</td>
<td></td>
<td></td>
<td></td>
<td>0.775</td>
<td></td>
</tr>
<tr>
<td>Agree2</td>
<td></td>
<td></td>
<td></td>
<td>0.769</td>
<td></td>
</tr>
<tr>
<td>Agree1</td>
<td></td>
<td></td>
<td></td>
<td>0.752</td>
<td></td>
</tr>
<tr>
<td>Neuro3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.826</td>
</tr>
<tr>
<td>Neuro2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.705</td>
</tr>
<tr>
<td>Neuro4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.700</td>
</tr>
</tbody>
</table>

Component loadings > |.3|

Therefore, Ex4, Con3, Open1, Open4, Agree5, Neuro1 and Neuro5 were deleted from the data. By deleting these items from the analysis 18 items remained (see table 3). An overview is provided in table 3 with factor loadings showed. All measures were above 0.7, except for
Open3 with 0.606, which is still good according to Field (2009). Neuroticism was found to be unreliable in this analysis. All factor loadings were borderline with most values close to 0.7. Communalities were all below 0.5, except for Neuro3. By examining the Cronbach’s alpha neuroticism was deleted from the analysis. The Cronbach’s alpha value for neuroticism was 0.572, which is below the acceptable cut-off point of 0.6 (Field, 2009).

Second, new product adoption, sales performance and job satisfaction by salespeople which originally consisted of 22 items were examined. An overview of the factor loadings are provided in table 4. New product adoption consists of commitment and effort, two elements that make up new product adoption. Commitment and effort both consist of 5 items. Commitment and effort both had communalities above 0.5, except for Effo2 with a value of 0.463, which will be deleted from the analysis. After deleting Effo2 all factor loadings were above 0.7 (see table 4). KMO was 0.834 for commitment and 0.741 for effort, indicating they both can be used for this analysis. Bartlett’s test of Sphericity was significant for both dimensions.
Table 4. Results factor analysis for commitment, effort, sales performance and job satisfaction

<table>
<thead>
<tr>
<th></th>
<th>Commitment</th>
<th>Effort</th>
<th>Sales performance</th>
<th>Job satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm4</td>
<td>0.830</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comm3</td>
<td>0.814</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comm1</td>
<td>0.801</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comm5</td>
<td>0.789</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comm2</td>
<td>0.753</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effo4</td>
<td></td>
<td>0.912</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effo5</td>
<td></td>
<td>0.886</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effo3</td>
<td></td>
<td>0.857</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effo1</td>
<td></td>
<td>0.776</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sale2</td>
<td></td>
<td></td>
<td>0.774</td>
<td></td>
</tr>
<tr>
<td>Sale3</td>
<td></td>
<td></td>
<td>0.734</td>
<td></td>
</tr>
<tr>
<td>Sale4</td>
<td></td>
<td></td>
<td>0.715</td>
<td></td>
</tr>
<tr>
<td>Sale1</td>
<td></td>
<td></td>
<td>0.607</td>
<td></td>
</tr>
<tr>
<td>Jobs7</td>
<td></td>
<td></td>
<td></td>
<td>0.898</td>
</tr>
<tr>
<td>Jobs5</td>
<td></td>
<td></td>
<td></td>
<td>0.876</td>
</tr>
<tr>
<td>Jobs4</td>
<td></td>
<td></td>
<td></td>
<td>0.804</td>
</tr>
</tbody>
</table>

Component loadings > | .3 |

Sales performance consisted of 5 items. Communalities were all above 0.5, but within the component matrix Sale5 was below 0.7. Factor loadings were all above 0.7, except for Sale1 with a value of 0.607 (see table 4). Job satisfaction consisted of 7 items. 4 items were below the cut-off point of 0.5 for communalities, which were Jobs1, Jobs2, Jobs3 and Jobs6. After deleting these items, all communalities were above 0.5. Factor loadings were all above 0.8, which is excellent according to Field (2009).

4.6 Multiple regression analysis

Multiple regression is a method of data analysis that is about fitting a model to the data found during the research. The essence of multiple regression is to predict values of a dependent variable from one or more independent variables. With the new conceptual model, the hypotheses and the survey this study is aimed to try to predict which sales manager’s personality traits will stimulate the process of adoption of new innovations by salespeople.
Field (2009) describes regression analysis as a way of predicting an outcome variable from one or more predictor variables. When predicting values for an outcome variable by using predictor variables, it is important to generate a model. This model is dependent to certain measures. First of all, there is the goodness of fit measure, which is the $R^2$-value. Within social sciences it is common that the values of $R^2$ are 0.25 or higher. With a $R^2$-value of 0.25 this means that 25% of the variance can be explained by the model. Second of all, it is important to find values for the F-ratio of 1 or higher. The higher this value the better the model can predict values for the outcome variable.

Last of all, assumptions is an important part for making the model reliable and valid. Within multiple regression there are five assumptions which needs to be checked, namely (1) linearity, (2) multicollinearity, (3) homoscedasticity, (4) independence of errors and (5) normality. By examining the data from the survey and by using multiple regression analysis, the relation of the sales manager’s personality on salespeople’s new production can be shown. Chapter 5 presents the results of this.
5. Results

The survey was filled out on a voluntary basis by salespeople from 53 different dealers that work together with M2Desk. Missing data was found during the SPSS analysis. Since, the sample is relatively low (51 cases), no cases will be excluded from the data. Hair (2010) explains that if there is missing data, several methods can be used in order to calculate values for these missing values, so that no cases have to be deleted. Hair (2010) describes mean substitution as “one of the most widely used methods. Mean substitution replaces missing values for a variable with the mean value of that variable calculated from all valid responses” (Hair, 2010, p. 53). By using mean substitution values can be calculated for the missing data.

One case (case 13) can be seen as a very influential case in this multiple regression analysis. This case was checked based on three measurements to decide whether it is an outlier. The Mahalanobis distance for case 13 is 2.56, which is above the cut-off point of 2.5, indicating it is an outlier. Cook’s distances indicates a value of 0.43, which is below the critical point of 1.0, indicating it is not an outlier (Field, 2009). Standardized DFBeta is also used, because this measurement can be used to assess the influence of an individual case on the complete analysis. The standardized DFBeta value is -0.15, which is below the cut-off point of 1.0, indicating it is not an outlier (Field, 2009). Because two out of three measures indicate that case 13 is not an outlier, therefore the decision was made to keep case 13 into the analysis.

However, within the sample some slight skewness was found. By assessing the histogram and normal probability plot it was found that the sample had a peaked distribution (Hair, 2010, p. 72). Hair (2010) describes that when the normal probability plot shows significant deviations, this indicates that the sample has skewness. Also the normal probability plot shows that there is the possibility of heteroscedasticity. To solve this Hair (2010) describes that the problem of heteroscedasticity can be solved by applying a logarithmic transformation (Hair, 2010).
Bartlett’s test of Sphericity was significant for all drivers investigated in this study. However, the Kaiser’s Meyers-Olkin measures of sampling adequacy were not all above 0.6 (between 0.589 and 0.834), indicating that some measures are mediocre. These values need to be as close as possible to 1.0, because partial correlation should be relatively compact, so factor analysis can yield distinct and reliable factors (Field, 2009).

**Table 5. Correlations Matrix and Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraversion</td>
<td>3.68</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.81</td>
<td>0.831</td>
<td></td>
</tr>
<tr>
<td>Conscient.</td>
<td><strong>0.384</strong></td>
<td>4.14</td>
<td>0.75</td>
<td>0.799</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openness</td>
<td>0.209</td>
<td>0.031</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.72</td>
<td>0.610</td>
<td></td>
</tr>
<tr>
<td>Agreeable</td>
<td><strong>0.538</strong></td>
<td>0.190</td>
<td>0.180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.87</td>
<td>0.735</td>
<td></td>
</tr>
<tr>
<td>Commitm.</td>
<td><strong>0.413</strong></td>
<td><strong>0.439</strong></td>
<td>0.145</td>
<td>0.106</td>
<td></td>
<td></td>
<td></td>
<td>0.67</td>
<td>0.857</td>
<td></td>
</tr>
<tr>
<td>Effort.</td>
<td><strong>0.392</strong></td>
<td>0.214</td>
<td>-0.003</td>
<td>0.223</td>
<td><strong>0.315</strong></td>
<td></td>
<td></td>
<td>0.91</td>
<td>0.881</td>
<td></td>
</tr>
<tr>
<td>Sales perf.</td>
<td>-0.106</td>
<td>-0.127</td>
<td>-0.051</td>
<td>0.009</td>
<td>0.094</td>
<td>-0.117</td>
<td></td>
<td>0.55</td>
<td>0.672</td>
<td></td>
</tr>
<tr>
<td>Job satisf.</td>
<td>0.017</td>
<td>-0.227</td>
<td>0.076</td>
<td>0.139</td>
<td>-0.140</td>
<td>0.037</td>
<td>0.070</td>
<td>0.60</td>
<td>0.818</td>
<td></td>
</tr>
</tbody>
</table>

Significance levels * p < 0.05, ** p < 0.01, one-tailed.

Above is the correlation matrix shown in Table 5. Despite the low sample size, strong correlations are found between variables. Most of the variables correlate at a significance level of p < 0.01, which indicates strong effects. By analyzing the correlation matrix, no values could be found above 0.8, which signs of multicollinearity. To be more certain, the Variance Inflation Factors (VIF) were also analyzed. The VIF values were between 1.035 and 2.084, which is well below the cut-off point of 10.0 (Field, 2009). But the average VIF is above 1.0, meaning that multicollinearity could bias the regression model. Therefore the tolerance values were checked to see if multicollinearity could bias the regression model. All tolerance values were above 0.2, which would cause for concern (Field, 2009). Therefore, the conclusion can be made that there is no multicollinearity. Discriminant validity was also checked by analyzing the correlation matrix. No values above 0.6 were found, meaning discriminant validity is not an issue. To assess the reliability of all the variables measured, Table 5 shows the Cronbach’s alpha values for each variable. As can be seen in table 5
Conscientiousness, Openness, Agreeableness and Sales performance have values below 0.8, whereby it is preferred to have values above 0.8. Values between 0.6 and 0.8 are seen as acceptable (Field, 2009). Neuroticism was deleted during the multiple regression analysis, because its Cronbach’s alpha value was 0.57, which is below the acceptual cut-off point of 0.6.

**Table 6. Results of the multiple regression analysis**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Adoption of new innovations</th>
<th>Sales performance</th>
<th>Job satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Effort</td>
<td>Commitment</td>
<td></td>
</tr>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraversion</td>
<td>0.381**</td>
<td>0.370**</td>
<td>-0.092</td>
</tr>
<tr>
<td>Conscient.</td>
<td>0.064</td>
<td>0.321**</td>
<td>-0.160</td>
</tr>
<tr>
<td>Openness</td>
<td>-0.101</td>
<td>0.046</td>
<td>-0.149</td>
</tr>
<tr>
<td>Agreeable.</td>
<td>0.019</td>
<td>-0.175</td>
<td>0.107</td>
</tr>
<tr>
<td>Commitm.</td>
<td>N/A</td>
<td>N/A</td>
<td>-0.192</td>
</tr>
<tr>
<td>Effort</td>
<td>N/A</td>
<td>N/A</td>
<td>0.211</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age sales manager</td>
<td>-0.033</td>
<td>0.036</td>
<td>-0.024</td>
</tr>
<tr>
<td>Age sales employee</td>
<td>-0.003</td>
<td>0.215</td>
<td>0.127</td>
</tr>
<tr>
<td>Year work experience</td>
<td>-0.128</td>
<td>-0.139</td>
<td><strong>-0.318</strong></td>
</tr>
<tr>
<td>sales manager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men¹</td>
<td>0.131</td>
<td>0.001</td>
<td>0.080</td>
</tr>
</tbody>
</table>

¹Dummy variable woman is excluded from the model
Significance levels * ρ < 0.1, ** ρ < 0.05

To provide an overview of the results of the multiple regression analysis, Table 6 shows these results. These results are implemented in figure 3 to provide new conceptual insights. As can be seen in table 6 and figure 3 several results were found. Hypotheses 1a stated that extraversion has an positive influence on the effort dimension of adoption of new innovations by salespeople. This hypothesis is supported (β = 0.381, ρ < 0.05) by the analysis. Also Hypotheses 1b is supported. Extraversion has a significant influence on salespeople’s commitment on new product adoption (β = 0.370, ρ < 0.05). So the sales manager’s level of extraversion has a positive influence on effort and commitment, which are the two dimension
of new product adoption. Hypotheses 2a and 2b were not supported by the analysis, meaning that the sales manager’s level of openness has no influence on new product adoption by salespeople. With conscientiousness it was found that it has no influence on effort (so hypotheses 3a is not supported), but has a positive influence on commitment (hypotheses 3b is supported, $\beta = 0.321, \rho < 0.05$). On agreeableness both hypotheses 4a and 4b were not supported, meaning that the sales manager’s level of agreeableness has no influence on new product adoption. Neuroticism was deleted from the analysis, meaning the hypotheses H5a and H5b cannot be rejected or supported, since the Cronbach’s alpha measure for neuroticism was too low. Finally, during the multiple regression analysis no evidence was found that effort has a positive effect on sales performance and job satisfaction by salespeople. So both H6a and H7a were not supported. Also commitment has no influence on the salesperson’s sales performance and job satisfaction, so H6b and H7b were also not supported. From an intuitive point of view, there may be several reasons given why new product adoption has no impact on salespeople’s sales performance and job satisfaction. First, new product adoption may be more challenging and too high of a risk for salespeople to willingly put in the effort and commitment to sell these new products. Second, sales managers do not stress the sales of new products enough, since there may be no or limited informal meetings between sales managers and salespeople. Third, the new products do not meet the expectations of salespeople. New products can be completely different from existing products, which can lead to uninterested salespeople, who are not willingly want to focus more on effort and commitment in selling these new products.

Besides examining the sales manager’s personality, also four control variables were included in the analysis. These control variables are: (1) the age of the sales manager, (2) the work experience of the sales manager, (3) the age of the sales employee and (4) gender. It was found that the work experience of the sales manager had a negative influence on the sales
performance of salespeople ($\beta = -0.318$, $\rho < 0.05$). This shows that the more work experience a sales manager has, this will negatively affect the sales performance of the sales employee. Furthermore, the age of the sales employee had a positive effect on his or her job satisfaction ($\beta = 0.379$, $\rho < 0.05$). Results indicated that the older the sales employee was, the more satisfied that sales employee was about his or her job. The reason for the fact that younger sales employees are less satisfied with their job than older sales people may be since younger salespeople may want more desirable job characteristics and have higher expectations about the job than the job provides. Older salespeople move into jobs that meet their expectations, since their expectations are modified by the experience of jobs and are diminished over the years. This reduces the gap between actual and ideal work and generates more positive work attitudes and higher job satisfaction (Clark, Oswald, and Warp, 1996).

To sum up, all results found in this multiple regression analysis were discussed. Next, the conclusion and general discussion based on these results are presented in chapter 6.
Figure 3: Data analysis on the new conceptual framework with SPSS Statistics

Significance levels * p < 0.1, ** p < 0.05
6. Conclusion and general discussion

This study investigated the Big-Five personality traits of the sales manager and its impact on salespeople’s new product adoption. Mount et al. (1998) stated that the personality of the sales manager can influence salespeople, since in informal settings with regular interactions between the sales manager and salespeople, environmental factors on behavior are weaker and sales manager’s personality traits are stronger, especially conscientiousness and agreeableness (Mount et al., 1998). This study partly confirms these findings and provides an extension on the body of knowledge on the role of the sales manager’s personality on new product adoption by salespeople.

By examining the Big-Five personality traits of the sales manager neuroticism had to be excluded from the analysis, due to low reliability measures. The analysis continued with the sales manager personality traits extraversion, conscientiousness, openness and agreeableness. To examine the effects of these personal traits on the new production adoption process, Hultink and Atuahene-Gima (2000) state the new product adoption process can be divided into effort and commitment.

First, Barrick and Mount (2005) had found that extraversion relates to job performance, where a significant proportion of the job involves interacting with others, particularly when that interaction is focused on influencing others, such as the adoption of new innovations by salespeople (Barrick and Mount, 2005). This study confirms this finding, since it was found that the sales manager’s level of extraversion has a significant effect on the process of adoption of new innovations by salespeople on both dimensions effort and commitment. This means that extraverted sales managers, who are sociable, fun loving, friendly and talkative, stimulate salespeople’s new product adoption. Also Mount et al.
(1998) found that extraversion is important when it comes to stimulating the salesforce on adopting new innovations. They say that sales managers need to be extraverted in order to stand above the salesforce, be conspicuous and overbearing, because they need to direct the salesforce in the process of adoption of new innovations and monitor them during the sales of new products.

Second, Roccas et al. (2002) found that conscientiousness was positively associated with being involved in work-related behaviors, as well as the capacity for reliable and enduring commitment. Sales managers who are conscientious, are hardworking people, committed, cautious and very achievement striving (Roccas et al., 2002). This study can partly confirm this finding. It was found that the sales manager’s level of conscientiousness has no significant influence on effort, but does have a significant effect on commitment. This means that conscious sales managers, who are careful, reliable, hardworking and self-disciplined, will stimulate salespeople to have more commitment on new products introduced by the organization within the new selling product context.

Third, Hultink and Atuahene-Gima (2000) explained that sales managers need to be open to new experiences and not only sell the benefits of a new product to the salesforce, but also to themselves. Convinced of its importance and benefits to themselves, the more confident the salesforce will recommend the new product to customers. This study cannot confirm this finding. No significant results were found on effort as well as commitment on the new product adoption. So sales manager’s openness has no significant effect on salespeople’s new product adoption.

Fourth, Barrick et al. (1998) explained that agreeableness is an important predictor in jobs that involve significant interpersonal interaction, especially when it matters to helping, cooperating and nurturing others (Mount et al., 1998). No significant results were found on both dimension of the new product adoption process effort and commitment by agreeableness.
Barrick et al. (1998) explain that the more agreeable the sales manager is, the more likely the salesforce and sales manager can work cooperatively, this is important when it comes to adoption and sales of new products. A sales manager, who is disagreeable also may be enough to destroy the team’s capability to work cooperatively, regardless of the level of agreeableness of the salesforce and has the possibility to destroy interpersonal relationships within the team. This study cannot confirm this finding.

To answer the first sub question which personality traits of the sales manager stimulate salespeople’s new product adoption this study concludes that the sales manager’s personality traits extraversion and conscientiousness have a significant influence and will stimulate salespeople’s new product adoption.

Further on, no significant results were found on both of these outcome variables. This can be the result of the low sample size used during this study, or since these outcome variables are not dependent on new product adoption. This study found significant results on these outcome variables, but these results come from the control variables that were used. From an intuitive point of view, there may be several reasons given why new product adoption has no impact on salespeople’s sales performance and job satisfaction. First, new product adoption may be more challenging and too high of a risk for salespeople to willingly put in the effort and commitment to sell these new products, which results in salespeople not selling new products. Second, sales managers may not stress the sales of new products enough, since there may be no or limited informal meetings between sales managers and salespeople, which leads to salespeople focusing more on selling existing products rather than focusing on selling new products. Third, the new products do not meet the expectations of salespeople. New products can have a completely different characteristic compared to existing products, which can lead to uninterested salespeople, since the new products do not meet the expectations. Therefore are not willingly to focus more on effort and commitment in selling
these new products.

To answer the second and third sub question if new product adoption would influence sales performance and job satisfaction by salespeople this study concludes that new product adoption has no significant influence and new product adoption does not require different personality traits for influencing salespeople compared to previous studies on salespeoples’ behavior. However, by focusing on new product adoption, problems can be better emphasized, since new product adoption is defined by the dimensions commitment and effort.

The control variables used during the multiple regression analysis were: the age of the sales manager, the work experience of the sales manager, the age of the sales employee and gender. This study found that the work experience of the sales manager has a negative influence on the sales performance of the sales employee. This is in line with the empirical research of Damanpour and Schneider (2008) who found that managers with more work experience accept organizational conditions and routines more, and have greater psychological commitment to them. Sales managers with more work experience will be less willing to commit to changing them (Damanpour and Schneider, 2008).

The age of the sales employee was significant on job satisfaction. This study found a positive relationship between the age of the sales employee and job satisfaction. This means that the older the sales employee is, the more satisfied he or she is. Clark et al. (1996) explain that the reason why younger sales employees are less satisfied with their job than older sales people may be since younger salespeople have higher expectations about the job than the job provides. Older salespeople move into jobs that meet their expectations, since their expectations are modified by the experience of jobs and are diminished over the years. This reduces the gap between actual and ideal work and generates more positive work attitudes and higher job satisfaction.
To answer the final question and to draw a conclusion, this study concludes that extraversion and conscientiousness are traits the sales manager should possess if salespeople’s new product adoption needs to be stimulated. The results of the analysis showed that these traits have the most influence on new product adoption in relation to other sales manager’s personality traits. Therefore, if organizations want to stimulate salespeople’s new product adoption, they need to hire sales managers high in extraversion and conscientiousness.

6.1 Limitations of the present study

There are several limitations to this present study.

Firstly, this study is based on a relatively low sample size of 51 respondents. The minimum for a respective sample size is at least 150 respondents. This low sample size was due to a limited general sample size given by M2Desk. M2Desk provided a database with 169 respondents that were approved as respondents. Through time, this database was extended with respondents from companies that were not related to M2Desk, because this limited database of N of 169 was affecting the response rate dramatically. Eventually the number of respondents was a total of 51, which in theory is relatively low for testing the complexity of the new conceptual model, but despite the relatively low sample size, this study shed light on the influence of sales manager’s personality on salespeople’s new product adoption. Second, no objective performance metrics were used during this study. Salespeople’s sales performance was measured based on subjective items filled out by salespeople themselves, rather than using annual sales reports, which influences the validity of these results. Third, since this study has a relatively low sample size, it was not possible to properly investigate the mediating effect of new product adoption on salespeople’s sales performance and job satisfaction.
### 6.2 Managerial implications

The findings from this study can provide several implications for management within an sales organization. First, this study demonstrates that if organizations want to introduce and sell new products, they need to hire sales managers that are extraverted and conscientious, since these personality traits persuade salespeople to adopt new products. This implies that personality assessment should be part of the personnel selection procedure. If sales managers score above average for extraversion and conscientiousness, the organization can select a sales manager based on the combination of their standard criteria and scores of the personality survey. Second, organizations need to facilitate the possibility to have regular informal meetings between sales managers and salespeople, since the influence of the sales manager’s personality becomes stronger on salespeople and environmental influences become weaker. Third, the work experience of sales managers has an effect on sales performance. This suggests that sales organizations need to have a rotation system within their organizations, where sales managers are rotated after a certain period of time. The results show that work experience of sales managers can have a significant negative effect on salespeople’s new product adoption, since sales managers with more work experience accept and identify themselves with organizational routines and are less likely to change the status quo. This is in line with prior research. Therefore, sales managers need to be rotated over time. Fourth, the results show that sales organization needs to take salespeople’s age into account. Older salespeople are expected to be more experienced and satisfied with their jobs than younger salespeople, since older and more experienced salespeople’s have jobs with characteristics that match their expectations. Younger salespeople are expected to have higher expectations of the job, which often do not meet their standards. These expectations will be diminished in later years, when these expectations are modified by the experience of jobs.
Since, job expectations are reduced over the years by comparison of standards, this will result in more positive work attitudes and diminishes the gap between actual and expected job expectations. However, work attitudes of younger salespeople can be influenced by providing incentives or bonuses.

### 6.3 Directions for further research

This study suggests several directions for further research. First, despite the fact that a small sample size is used during this study, this study shed light on what influence sales manager’s personality has on salespeople’s new product adoption, but it would be useful to extend this research with a larger sample size. The findings and conclusion would be stronger given a larger sample size. Second, it would be interesting to examine the interaction effect between behavior sales control systems and the personality of the sales manager. Both are focused on influencing and controlling the behavior of salespeople. This can result in effects that strengthen each other. Third, incentives can have a stimulating effect on young salespeople to focus them more on selling new products. This study found that young salespeople are often not satisfied with their job, since their expectations on the job are not met. Incentives would stimulate young salespeople to focus more on selling new products, because they will be rewarded for selling more new products and their financial expectations will be more satisfied.
7. References


*Journal of Occupational and Organizational Psychology* 69: 57-81


Appendix A: Email to respondents

Dear Mr./Ms .............,

I am a student of the University of Eindhoven and working on a thesis project for M2Desk. This thesis will focus on the personal characteristics of your sales manager (s) / supervisor and the products of M2Desk (M2Desk Classic and M2Desk-Flex).

The aim is to investigate which personal traits in a sales manager / supervisor are important to convince employees to adopt a new innovation. It is therefore important to ensure that the sales manager / supervisor encourages the sales representative in a positive manner.

The results will be included into my final report. If you are interested in the results, please send an email to the email address below. The answers you give will remain anonymous and confidential. Among the participants a reward will be handed of 5x € 10, -. The winners will be chosen randomly. Please fill out the survey completely. Completing the survey takes about 10 minutes.

We thank you for your cooperation.


For more information, please contact:

Ramon van Ingen
Wattstraat 44
2723 RC
Zoetermeer
Netherlands

Tel: +316-20206835
Email: Ramon@m2desk.com

Best regards,
M2Desk

Ramon van Ingen
E ramon@m2desk.com

M2Desk B.V.

Bezoekadres
Wattstraat 44
2723 RC Zoetermeer
Postadres
Medeaschouw 122
2726 KT Zoetermeer

I www.m2desk.com
E info@m2desk.com
T +31 (0)79 343 63 13

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Appendix B: Questionnaire - English version

M2Desk Questionnaire

"The influence of sales managers on the process of adoption of innovation by the sales force"

This questionnaire is set up on behalf of a master thesis, to examine the effects of sales managers' personal traits on the process of adoption of innovation by the sales force. By collecting data via this questionnaire new relations can be found and sales managers can be shown how they can participate in stimulating the process of adoption by the sales force.

This questionnaire consists of 4 parts.

To make this research a success data is needed.

Your opinion is important.

Start

M2Desk Questionnaire

1. Part I: "Sales manager/supervisor personality"

Think of your sales manager/supervisor, the following personality questions are related to his/her personality. Please, indicate your level of agreement by checking the boxes.

Your answers can be given on a scale, ranging from 1 ("Strongly disagree") thru 5 ("Strongly agree").

Notice: He can also be read as she

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1. Interacting with people generally gives him a lot of energy
2. He feels best when he is alone
3. He likes to meet a lot of people and have fun with them
4. Being with other people is often exhausting for him
5. He feels best when he has a lot of people around him
6. When he has a plan he does everything to achieve it.
7. When he encounters difficulties in implementing a plan he tends to give up quickly
8. He often does not implement his plans to the end
9. He has often set a goal without really trying to reach it.
10. When he has set a goal he pursues it very persistently
### Part II: “Your own views/opinions/behavior/performance”

The following questions related to your own views/opinions/behavior and performance. Please select the best answer regarding your own personality.

Your answers can be given on a scale, ranging from 1 (“Strongly disagree”) thru 5 (“Strongly agree”).

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<td><strong>1.</strong> I feel emotionally attached to the success of new products</td>
<td><strong>Strongly disagree</strong></td>
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<td></td>
<td><strong>Strongly agree</strong></td>
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<td><strong>2.</strong> Achieving objectives for new products has a great deal of personal meaning to me</td>
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<td><strong>3.</strong> I enjoy discussing new products with other sales people</td>
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69
4. I feel a strong sense of duty to ensure the success of new products.

5. I would be willing to make further investment of my time and energy to support new products.

3. Compared to other products you have sold, how much effort did you devote to new products in:

   Your answers can be given on a scale, ranging from 1 ("Much less") thru 5 ("Much more").

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<td>6. Prospecting for customers</td>
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<td>7. Planning sales calls</td>
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<td>8. Collecting market information</td>
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<td>9. Using market information</td>
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<td>10. Building customer relationships</td>
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4. To what extent have you been successful in:

   Your answers can be given on a scale, ranging from 1 ("Too little extent") thru 5 ("too much extent").

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<th>Too much extent</th>
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<td>11. Gaining significant market share for new products</td>
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<td>12. Exceeding sales targets set for new products</td>
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<td>13. Generating high level of sales volume for new products</td>
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<td>14. Quickly generating sales for new products</td>
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<td>15. Assisting sales manager in achieving the objectives for new products</td>
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5. Job satisfaction:

   Your answers to the following items can be given on a scale, ranging from 1 ("Strongly disagree") thru 5 ("Strongly agree").

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<th>Strongly disagree</th>
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<td>16. I'm proud of my job</td>
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<td>17. There is enough variety in my job</td>
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<td>18. My job requires new skills</td>
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<td>19. My job has enough opportunity for independant thought and action</td>
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<td>20. I am satisfied with the opportunity that my job gives me</td>
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<td>21. The quantity of my task is appropriate for me</td>
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<td>22. My job gives me a positive challenge</td>
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13. How old are you?

14. What is your gender?
- Male
- Female