TAMPEREEN TEKNILLINEN YLIOPISTO
TAMPERE UNIVERSITY OF TECHNOLOGY

Tommi Mahlamäki

The Influence of Personality on the Job Performance of Key Account Managers

Julkaisu 907 • Publication 907

Tampere 2010

Tampereen teknillinen yliopisto. Julkaisu 907
Tampere University of Technology. Publication 907

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Thesis for the degree of Doctor of Science in Technology to be presented with due permission for public examination and criticism in Festia Building, Auditorium Pieni Sali 1, at Tampere University of Technology, on the 20th of August 2010, at 12 noon.

Tampereen teknillinen yliopisto - Tampere University of Technology
Tampere 2010

ISBN 978-952-15-2409-7 (printed)
ISBN 978-952-15-2427-1 (PDF)
ISSN 1459-2045

ABSTRACT

Mahlamäki, Tommi. 2010. *"The Influence of Personality on the Job Performance of Key Account Managers"*. Department of Industrial Management. Tampere University of Technology, Tampere, Finland.
Keywords: Key Account Management, Key Account Manager, Job Performance, Personality

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Key account management (KAM) is a current and relevant topic in the business-to-business marketing context. KAM can be defined as identification and serving of company's strategically important customers. Although KAM is widely studied, less attention has been paid to KAM's essential ingredient: the key account manager. This research focuses on the job performance of the key account manager; more precisely, on the influence of personality on that performance.

While identifying the relationship between personality and key account manager job performance, different research methods were used. Development and validation of a personality inventory called for survey research with analysis tools ranging from correlation to confirmatory factor analysis. For the research on the relationship of personality and job performance 180 Finnish key account managers were surveyed. In the data analysis, correlation and regression analyses were utilized.

The academic contribution of this research can be divided into two parts: scale development and relationship identification. The first contribution of the research is the personality inventory, which can be used to assess the Big Five personality traits in the Finnish context. The second contribution is the increased knowledge of the relationship between personality traits and key account manager job performance. The results showed that extraversion had the strongest relationship with job performance. The positive relationship was identified as statistically very significant. Conscientiousness and agreeableness also had statistically significant, positive relationships with job performance. Openness to experience had a weak relationship with job performance. Finally, emotional stability was found to have no statistically significant relationship with job performance.

This research increases the knowledge of the influence of personality on key account manager job performance. Organizations can use this information in their recruitment processes. These results could also be found useful for some aspects of training and new employee orientation processes.

It would be beneficial to the research community to know more of the personal aspects that influence key account manager job performance. Effects of motivation, intelligence, or narrow personality traits concerning job performance could be analyzed. Finding out the profile of the well performing key account manager would also be both scientifically interesting and commercially valuable.

ACKNOWLEDGEMENTS

"As we express our gratitude, we must never forget
that the highest appreciation is not to utter words,
but to live by them."

- John F. Kennedy

Thanking others is not my strong suit. At this point in time I really have to mend my ways, and admit that there is much to be thankful for. I owe an everlasting debt to many individuals for their help and support for this project through many various means.

First, my sincere thanks go out to my supervisor, Professor Olavi Uusitalo, who is largely responsible for the successful completion of my dissertation. His commitment, encouragement, guidance, and support helped me in my doctoral studies and in the writing process.

Next, I would like to thank the examiners, Professor Kjell Grønhaug and Professor Jukka Ojasalo. Their feedback has been invaluable in the process of finalizing this dissertation. My appreciation to Professor Kjell Grønhaug goes also for his insightful and helpful research methods course and his constructive participation in the early "steering" stages of this dissertation project.

I owe my deep gratitude to all researchers with whom I had the privilege to work with during the current research project. Professor Olavi Uusitalo and researchers Marja Leppänen, Mika Ojala, and Reetta Suursalmi were the coauthors in the conference papers that were published based on this research. Their ideas and comments have improved the quality of this work. Special thanks go to all the Finnish key account managers who gave their valuable time and energy to give responses for the use of the research.

I would also like to thank all my current and past colleagues at Industrial Management at Tampere University of Technology and in other organizations. Throughout the research process their help has been heartwarming. After all, it was the seemingly small things that helped me getting there, like lending a book, closing an endless number of envelopes, giving advice on different things, having a cup of coffee, taking over of some of my teaching responsibilities, pushing me to go on, proofing the questionnaires, or just being there with a friendly face or an ear. In particular, I would like to thank the following individuals (in alphabetical order):

Jukka Annala, Anna Engblom, Esa Heikkilä, Anne Jalkala, Doris Jansson, Heini Järvenpää, Sirpa Järvenpää, Mikko Kaataja, Harri Kulmala, Seppo Laukkanen, Olli Manninen, Toni Mikkola, Saku Mäkinen, Ulla Niemi-Ylänen, Marita Nikkanen, Sanna Nokelainen, Tomi Nokelainen, Mika Ojala, Eila Pajarre, Santeri Repo, Marko Seppänen, Petri Suomala, Reetta Suursalmi, and Janne Toivonen.

The journey here would have been quite hard with only colleagues at my side. My heartfelt gratitude goes to my mother, Taina and father, Tapio, for their love and support. I thank my brother Teemu and his active family for many memorable moments. My god-daughter Emilia and god-son Masi always make me smile. I value highly the friendships I have been blessed with. Thanks go to (among others) Janne, Juuso, Rolf, Tero, and Ville. We also know that "All work and no Play" is not a healthy combination. Therefore, it is with gratitude that I thank all my teammates from Soittorasia for their help in providing enough "play" time.

I know that some people listen to music while they work. For me, the ideal side dish for this project was somewhat different. I have to thank some of the "friends" who shared my intensive writing days and especially nights. The casts of Cheers, Futurama, League of Gentlemen, M.A.S.H, Monty Python, Northern Exposure, South Park, Voyager, and, TV-hosts Jon Stewart and Stephen Colbert kept me company and helped me to maintain my sanity on those long nights.

Finally, my highest appreciation and thanks go to the love of my life, Anna, without whom this dissertation could not have been possible. She gave me the belief and motivation to finish this behemoth of a project. She has shown me what an unyielding personality can achieve. To put it simply, she is, and always will be, my muse. Thank you, "Kaunolainen".

Kuninkaankatu, Tampere, June 6th, 2010

Tommi Mahlamäki

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1. INTRODUCTION

"Early to bed, early to rise,
makes a man healthy, wealthy and wise."

- Ben Franklin

1.1. Background

Building and sustaining customer relationships are among the key elements for success in today's competitive business markets. While organizations are responsible for creating procedures and guidelines and committing resources to support personnel, organizations' eventual primary contact with a customer takes place through a person who can often play a crucial part in determining the success of the seller-customer relationship.

A key account manager is the person who is responsible for at least one strategically important customer relationship. Key account managers must initiate, develop and sustain relationships with customers and within the firm (Hutt and Walker, 2006). The great importance of these strategic relationships justifies the research interest in these managers.

These key account managers, as do all individuals, have personality traits or characteristics that distinguish them from each other; these same traits may also make key account managers more or less suited for working with customers. It is important, therefore, to understand the importance of the different personality traits[1] contributing to a person's performance when managing customer relationships. This knowledge is valuable for employee training, recruiting, and personnel resource commitment decisions.

[1] Individual traits or combinations of traits.

Even though the role of the key account managers is very important, very little research has focused on identifying the factors that affect the job performance of key account managers (Guenzi et al., 2007; Hutt and Walker, 2006; Sengupta et al., 2000; Workman et al., 2003; Zupancic, 2008). McDonald and Rogers (1998, p. 120) listed the qualities, knowledge and skills that key account managers need in order to fulfill their organizations' expectations in managing relationships. Still, empirical research into these qualities and skills has been largely neglected. Some exceptions exist; Sengupta et al. (2000) developed and tested a model of key account salespersons' effectiveness, though the model focused on only individual abilities, particularly on the salespersons' strategic and intrapreneurial abilities. Hutt and Walker (2006) studied the performance of key account managers from a network perspective (i.e., how the social network of a manager affected his or her work performance).

Personal attributes contributing to sales performance have been widely studied (Barling and Beattie, 1983; Barrick et al., 2002; Lee et al., 1990; Lee and Gillen, 1989; Matteson et al., 1984). In contrast, the attributes affecting performance in managing customer relationships have not been widely researched. While the research on key account management (KAM) has increasingly focused on performance-related aspects (Wengler, 2006, p. 250), the focus has remained at the organizational level (see Homburg, et al., 2002; Ryals and Holt, 2007; Shi et al., 2004; Workman et al., 2003). Still, a strong belief exists that there is demand for research focusing on the individual key account manager. According to Zupancic (2008) there is consensus about the tools and practices for managing KAM relationships; what is neglected though is that KAM is also about human contact. He also notes that there is great demand for research focusing on soft factors, such as trust, harmony, or sympathy. Personality and personality traits give us a good means for analyzing these soft factors affecting key account relationships.

1.2. Key Research Objective and Research Tasks

The research interest in this study is the job performance of key account managers. Special focus is placed on personality and its possible effects on job performance. With this in mind, the key research objective becomes the following:

> ***To identify the relationships between personality traits and key account manager job performance.***

The lack of a suitable personality inventory for the current research purposes results in a sub-research objective:

> ***To develop a personality inventory that can be used to assess personalities for statistical purposes.***

On the path to reaching the research objectives, certain steps or tasks can be identified. The following list describes these research tasks.

1) To increase the understanding of key account management and key account manager roles and tasks.

Before the job performance of key account managers is analyzed, an understanding of the concept of key account management itself is essential. The roles and tasks of the key account manager need to be analyzed. A theoretical framework of the tasks and roles of key account manager will be established, based on current literature. Survey research will be conducted to analyze the same roles and tasks in real-life situations. A comparative analysis of the theoretical and the actual roles and tasks performed in organizations needs to be conducted. The comparative analysis will help to assess the generalizability of the Finnish key account manager sample.

2) To increase the understanding of key account manager job performance.

This task entails clarification of the aspects of key account manager job performance. Once the tasks and roles of the key account manager have been identified, it is necessary to clarify the different factors affecting job performance. It is also important to discover the relative importance (or weight) of these factors.

3) To identify measures that can be used to study key account manager job performance.

The task here is to find the most suitable measures that can help assess the job performance of key account managers. The challenge here is to find measures that can be used to assess the whole range of different key account managers. This challenge raises several questions: Is it possible to obtain or gather objective performance data? Can already validated performance measures be found? What kind of questions[2] should be used? Can self-reported data be used in the process?

[2] Open ended, structure etc.

4) To develop and validate a short personality inventory that can be used to assess key account manager personalities.

To analyze the effects of personality, a method for assessing personality in a brief enough way to get people to respond to the survey is necessary. The method should also be statistically valid and reliable. These two goals normally mean very different requirements for the inventory. An inventory that saves time and increases the response rate has only a few items identifying one factor. On the other hand, an inventory that is as valid and reliable as possible normally means a large number of items identifying one factor. The task in this research is, understandably, to find a good compromise between these two concerns.

Prior to this research, there were no suitable Finnish personality inventories available. Thus, the development of a suitable personality inventory became a necessity. Therefore, the development of a personality inventory becomes one of the major tasks of the whole research.

5) To analyze how different personality traits affect a key account manager's job performance.

This step entails several questions to be considered later on in the research. For example: What effects, if any, do different personality factors have on the job performance of a key account manager? What kinds of relationships exist between personality traits and key account manager job performance? Are there correlations between these variables? Can causal relationships be identified? Does a linear model best explain the possible relationships?

1.3. Introduction to the Theoretical Background

The theoretical background of this study is based on two major disciplines: business-to-business marketing and psychology. Many relevant fields can be identified as part of business-to-business marketing, including 1) customer relationship management, 2) key account management, and 3) personal selling. In psychology, the important subfields are 1) work psychology, 2) personality psychology, and 3) psychometrics. In addition to the two major disciplines, the theoretical background relies on theories of measurement, especially performance measurement. Next, the two key

components of the theoretical background, key account management and personality, are briefly introduced.

Key account management (KAM) is a highly evolved form of customer relationship management. While the goal of customer relationship management is to serve customers individually in a coordinated way, the goal of KAM is to identify the company's strategically important customers and to manage those important, key accounts (Homburg et al., 2002; McDonald et al., 1997; Srivastava et al., 1999). The execution of the KAM strategy is the responsibility of the key account manager, who is the person responsible for a key account. The theoretical background on key account managers focuses mainly on the roles and tasks of these managers (McDonald et al., 1997; McDonald and Rogers, 1998, p. 120; McDonald and Woodburn, 2007, p. 289).

In addition to KAM, personality plays a major part in the theoretical background. In this research, personality is considered a combination of different traits. The Five Factor Model[3] (FFM) is one of the most highly regarded trait theories of personality (Costa et al., 2002; John and Srivastava, 1999). In this model, variations of personality are explained by five factors: 1) extraversion, 2) agreeableness, 3) conscientiousness, 4) emotional stability, and 5) openness to experience. The FFM is used in this research as the main tool for assessing personalities.

Since Tett et al. (1991) and Barrick and Mount (1991) conducted meta-analyses on the influence of personality in job performance, research interest has grown concerning the Five Factor Model personality traits as predicting factors in job performance. Tett et al. and Barrick and Mount concluded that some of the FFM traits have a small, but significant, correlation to job performances in various fields. Since then, the use of broad personality traits, such as those of the FFM, as a predictor of job performance has been debated in the research literature. Ones and Viswesvaran (1996) concluded that broader personality traits are better than narrow traits as predictors of job performance. On the other hand, Ashton (1998) and Tett et al. (2003) presented evidence that narrow traits (such as the facets of the FFM factors) are more suited as performance predictors.

[3] The Five Factor Model is also referred as a model of the Big Five personality traits (Chamorro-Premuzic, 2007, p. 25). However, some researchers separate these two models. For example, Engler (2009, p. 292) explains that the FFM goes beyond the Big Five model by making farther-reaching theoretical claims.

Another concern in using the FFM model is the validity of the scale used. In a meta-analytical study, Hurtz and Donovan (2000) pointed out that most of the job-performance-related studies that used FFM as the explanatory variable paid little attention to the construct validity, i.e., to whether the scales used in the research truly map the FFM. Some of the previous studies have used measures that were not designed to explicitly measure the FFM personality dimensions (Hurtz and Donovan, 2000). Consequently, in this research, attention is paid to the selection of a valid FFM assessment method.

1.4. Research Methodology

Neilimo and Näsi (1980, p. 31) identified four research approaches that are used in economic research. They are the conceptual, nomothetic, decision-oriented, and constructive approaches. Kasanen et al. (1993) added a fifth approach, namely, the action-analytical approach. While the Kasanen et al. (1993) and Neilimo and Näsi (1980, p. 31) discussion is embedded in economic research and managerial accounting research, it can be applied to the current research setting. The identified research approaches can be categorized by whether they are normative or descriptive and theoretical or empirical (see Figure 1).

In the conceptual approach, new knowledge is produced mainly through the method of reasoning. The nomothetic approach is closely linked to the positivist[4] research tradition. Causal models are used in the analysis, and general laws are hoped to be established through the results of the analysis. The decision-oriented approach shares the basic assumptions of the nomothetic approach. The difference is in the nature of the research, which in this case is normative. The results of the research are meant to help management in everyday situations in the company. In the action-analytical approach, the focus of the analysis is human beings. The explanatory model in this approach is often teleological. The constructive approach is normative and empirical. The constructive approach is very close to the decision-oriented approach; the main difference lies in the objective of the constructive approach to explicitly demonstrate the practical usability of the constructed solution. (Kasanen et al., 1993)

[4] Positivism is described in more detail in Sub-chapter 1.5.

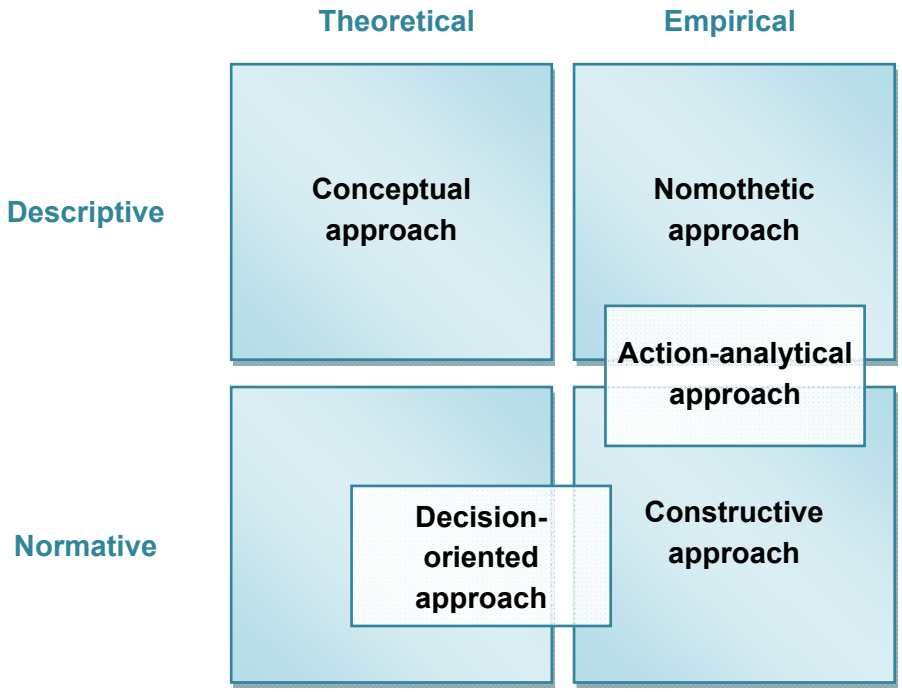


Figure 1. Research Approaches

From these different approaches, the current research utilized three. The progress of the research can be seen in Figure 2. The research begins with a literature review and the definition of research objectives. The literature review is mainly used for concept definition and measuring instrument development but is also used, for example, in planning the survey research and statistical analysis. This phase of the work calls for the conceptual approach, where reasoning plays a major part in knowledge creation (Kasanen et al., 1993).

The second phase consists of two parts. In the first part, key account management and the tasks and roles of a key account manager are clarified. After that, the job performance measurement instruments are identified. The second part starts with the definition of the concepts of personality. Necessary measuring and analyzing instruments are created; for example, the instrument for assessing personality, personality assessment inventory[5], is developed and validated. The instrument is initially based on the literature review and previous instruments, but the testing and redesigning of the instrument require both nomothetic and constructive research

[5] In the text personality inventory and inventory are used as synonyms for personality assessment inventory

approaches (Kasanen et al., 1993). The nomothetic research approach is used in the fifth phase of the study, where the influence of personality on key account managers' performance is analyzed in detail.

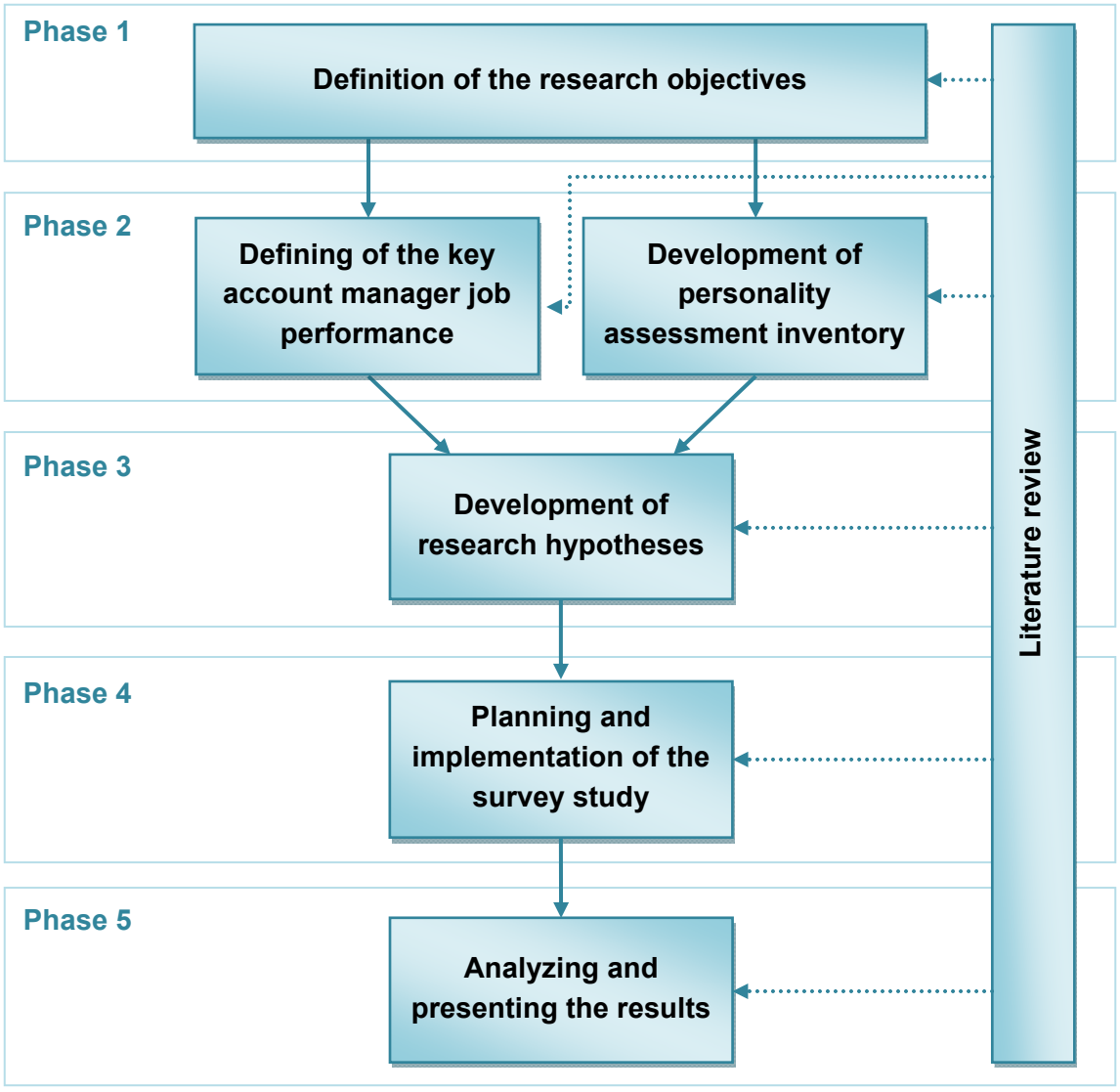


Figure 2. Progress of the Research

Different research methods are illustrated in Chapters 3 and 4. The current key account manager research uses various methods to answer the research question. The nature of this research is formal research. It uses interviews as the data collection method. Because the goal of the research involves investigating relationships between constructs, the purpose of the study is to be causal at the minimum;

depending on the analysis, a predictive purpose would be a possibility. The research is a cross-sectional, statistical study conducted in field settings.

1.5. Research Philosophy

Science and research are all about developing knowledge. The philosophy of research is concerned with how reasoning (theory) and observations (data) relate to each other in the development of knowledge (Blumberg, 2008, p. 19). On a higher level, the philosophy of science is interested in the relationships of different sciences and especially in the question of what constitutes science (Salonen, 2001, p. 103). In other words, the philosophy of science could be considered to be research about research. In a research setting, research philosophy describes the researcher's views on the development of knowledge. Two of the most distinguished and contending research philosophies are positivism[6] and interpretivism (Blumberg et al., 2008, p. 19; Marsden and Litter, 1996; Roth and Mehta, 2002).

Positivism is adopted from natural sciences and, as a formal doctrine, was first introduced by Comte (see, e.g., Comte, 1865). Positivism can be illustrated by listing its three basic principles: 1) the social world exists externally and is viewed objectively; 2) research is value free; and 3) the researcher is independent, taking the role of objective analyst. These three basic principles hold true across all sciences (e.g., natural and social). Positivism holds that a true explanation or cause of a certain situation or state can be found and tested by scientific standards of verification (Roth and Mehta, 2002). In positivism, knowledge is testable and its development starts with hypotheses and is followed by observations supporting or rejecting the original hypotheses (Blumberg et al., 2008, p. 19).

Interpretivism does not concentrate on finding an objective truth. Interpretivism focuses more on unraveling patterns of subjective understanding (Roth and Mehta, 2002) and relies on the following principles: 1) the social world is constructed and is given meaning subjectively by individuals; 2) the researcher is part of what is observed; and 3) research is driven by interest (Blumberg et al., 2008, p. 20). Interpretivism assumes that there are different versions of the truth and that such versions of the truth are shaped by the individuals' beliefs of their world (Roth and Mehta, 2002).

[6] Positivism is sometimes referred to as empiricism (see, e.g., Arndt, 1985).

Even though positivism prevails in marketing science (Hirschman, 1986; Marsden and Litter, 1996), positivism has been heavily criticized (Hunt, 1993). The major concern about positivism comes from the question of whether true objectivity is even possible to achieve (Mick, 1986). Even with this drawback, positivism is more in lined with the current research with the goals of finding causal relationships between personality traits and job performance. Therefore, positivism is adopted as a guiding perspective for this research.

1.6. Scope and Limitations of the Research

As the topic of the research—the influence of personality on the job performance of key account managers—clearly shows, the current study focuses on key account managers. Key account managers work for companies operating mainly in the business-to-business market. Key account managers work in various industries (e.g., communication technology, the chemical industry, banking, etc.). These managers may work at the national or multinational level. Even though market and industry information would be available for more detailed analysis, no distinction is made based on that information for the current research purposes. As a result, key account managers are analyzed as a single group.

Classification of key account managers is not made on theoretical grounds. For this study, key account managers are considered to be those individuals who are called key account managers by their organizations. During the research process, there were considerations that some companies might want to use the key account manager title to give, for example, a sales manager a better-sounding title. No definitive proof of this was found, so there was no need to examine and screen the key account manager responses for "invalid" key account managers.

The research focuses only on Finnish key account managers.[7] Some limitations concerning the generalizability might be faced because the research is confined to this geographically and culturally limited sample of key account managers. These issues are discussed in more detail in Chapter 4.

[7] Or, to be precise, the research focuses on key account managers who have a mailing address in Finland. It is very likely that these people are all Finnish, but it is not certain.

1.7. Ethical Concerns Regarding the Research

Ethical research can be understood as conducting the research in a moral and responsible way (Blumberg et al., 2008, p. 154). The current key account manager survey concerns personal issues, such as job well-being, personality, and job performance. Ethical standards are followed during the design and reporting of the research. Ethical research design makes sure that no physical harm, discomfort, pain, embarrassment, or loss of privacy occurs during the research (Blumberg et al., 2008, p. 156). One of the critical ethical issues concerning the current research is the anonymity of the respondents. The presentation of the results is designed in a manner that will not show any information by which individuals could be identified.

Another major ethical issue concerning the current research is masking of the true topic of the key account manager research. The two major constructs that are studied with the help of the survey are personality and job performance. Still, well-being at work is present as a major topic in the research questionnaire. Even though the well-being at work data is investigated in another study; the main reason for the topic's presence in the research questionnaire is to prevent the biasing of the survey participant. In a situation like this, the benefits to be gained by masking should be balanced against the possible risks to the respondents. In this case, the benefits are clear, and the risks toward the respondent are minimal.

1.8. Structure of the Dissertation

The structure of the dissertation is illustrated in Figure 3. In Chapter 1, the topic, the research questions, and the objectives are introduced. In Chapter 2, established knowledge of the key theories is outlined. The key theories include theories about personality, key account management, and job performance. The theoretical introduction is followed by a sub-chapter in which the necessary constructs are defined. Chapter 2 ends with the presenting of the research hypotheses. Chapter 3 describes research methods and the development of a personality inventory. After creating a theoretical model, statistical analysis is used to develop and finally validate the inventory. The fourth chapter concentrates on the key account manager survey. The profile of the Finnish key account manager is illustrated. Chapter 4 also clarifies how the survey data was gathered, the description of the variables extracted from the data, how the data was analyzed and, finally, how the reliability and the

validity of the data were assessed. In the fifth chapter, the results of the research are presented, analyzed, and discussed. The final chapter describes the overall contribution of the research, its theoretical and managerial implications, as well as the need or recommendations for future research.

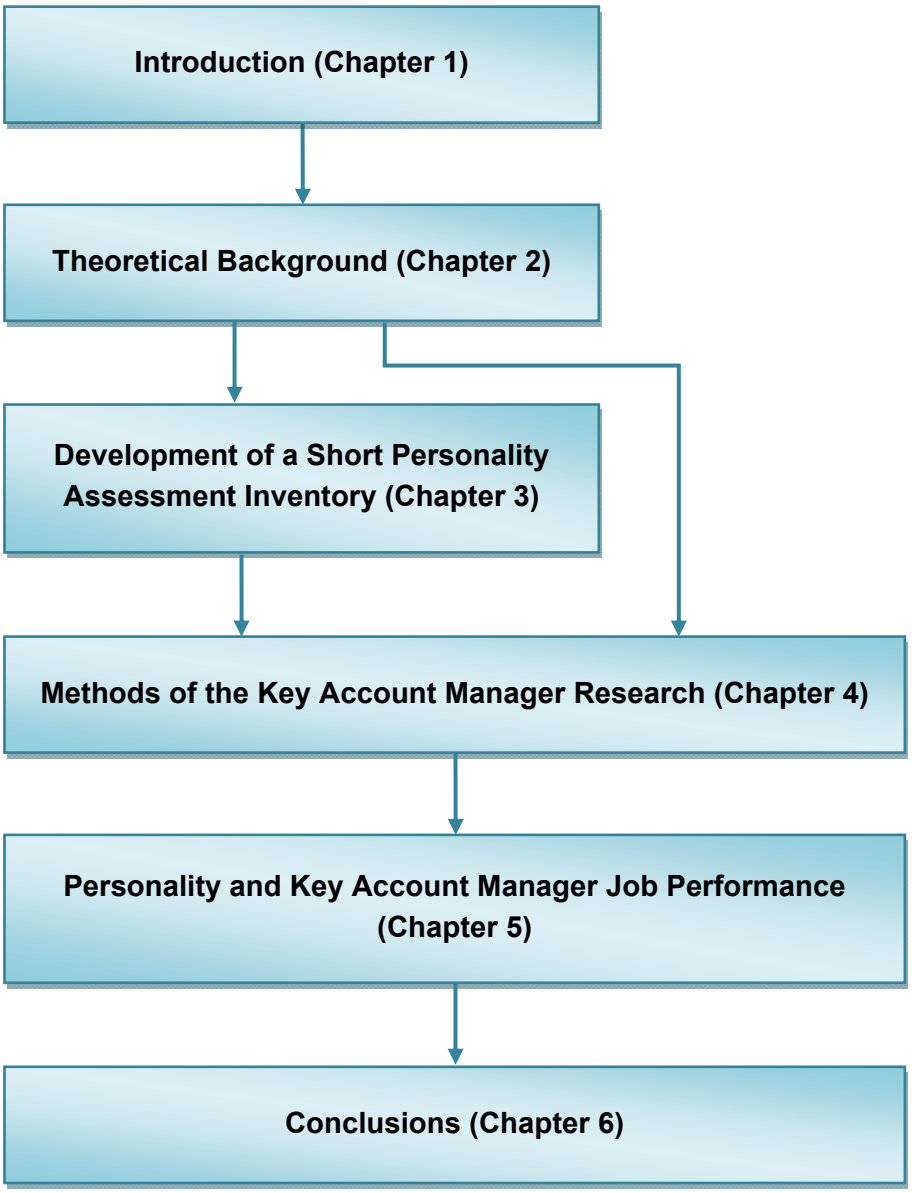


Figure 3. Structure of the Dissertation

2. THEORETICAL BACKGROUND

"It is a capital mistake to theorize before one has data."
- Sir Arthur Conan Doyle

2.1. Key Account Management

In marketing literature, key account management (KAM) is defined in different ways. The following two definitions give a good idea of the KAM as a broad strategy a company can pursue.

McDonald and Rogers (1998, p. 1) defined KAM as follows:

> "Key Account Management is an approach adopted by selling companies aimed at building a portfolio of loyal key accounts by offering them, on a continuing basis, a product/service package tailored to their individual needs."

Cheverton (2008, p. 30) defined KAM as:

- Developing the nature of the customer relationship in order to enhance understanding and to identify the true opportunity;
- Aligning the business resources to act on that enhanced understanding in order to secure competitive advantage and to enhance profitability.

During the past two decades, KAM programs have become more and more common. Homburg et al. (2000) went as far as stating that the change toward KAM is one of the most significant organizational changes in our time. Many factors influence companies' increased motivation for developing KAM programs. Increased competition, a company's internal factors (such as increased selling costs) and

pressure from customers are some of the reasons why companies adopt KAM strategies (Capon, 2001, pp. 7-9). Brehmer and Rehme (2009) analyzed the drivers for KAM programs. The authors identified three main drivers: sales opportunity, customer demand, and a belief in customer-centric organizational units.

Pardo et al. (2006) studied the meaning of value in KAM. They found that the value of KAM consisted of three different types of value: exchange value, proprietary value, and relational value. Exchange value means the value that is created by the selling company and enjoyed by the key account. Proprietary value is the value that the selling company creates for itself with KAM programs. This value can be determined with the help of a cost/benefit analysis of the KAM program. Relational value means the value that is co-created by the selling company and the key account. The relational value can be a product of, for example, joint research and development projects or joint marketing intelligence gathering.

An addition to the incentives and benefits of KAM, opposing or critical views of KAM also exist. Piercy and Lane (2006) opposed the "blind jump" to KAM strategy, pointing out that many companies start serving their largest companies with a KAM strategy even without analyzing the overall profitability of these large customers. Ivens and Pardo (2007) found that selling companies invested heavily in KAM, but in many cases the customers' perceived relationship quality didn't improve.

To further explore the essence of KAM, we can examine the work of Homburg et al. (2002), which drew from the work of Anderson et al.[8] (1994) among others. The researchers identified four dimensions of KAM: 1) activities, 2) actors, 3) resources, and 4) formalization. Activities refers to the activities the selling company can carry out for its key accounts. Actors can include participants, such as the key account manager, key account management team or senior management. Resources can be understood as support from functional groups, such as marketing and sales, logistics, manufacturing, or financing. Formalization in the KAM context means the extent to which the management of key account relationships is governed by guidelines, rules, and standard procedures.

KAM can also be considered as a series of processes (Millman and Wilson, 1999). Ojasalo (2001) identified KAM as consisting of four phases. First is the identification

[8] Anderson, Håkansson, and Johanson identified three facets of constructive effects on network identity in their work with dyadic relationships. The facets were resource transferability, activity complementarity, and actor-relationship generalizability (Anderson et al., 1994).

of key accounts. The second step is to analyze the key accounts. The third step is to select suitable strategies for the key accounts. The final step is to develop operational capabilities to build, grow, and maintain profitable and long-lasting relationships with the key accounts.

The following sub-chapters will cover the essential key account management themes that relate to the research questions. First, the history of KAM is briefly reviewed. The selection and analysis of key accounts are discussed next. That is followed by a review of key account relationships. The focus then shifts to key account managers, covering the roles, tasks, and essential skills and qualities of key account managers. In the last sub-chapter, the current focuses of KAM research are presented.

2.1.1. History of Key Account Management

In essence, KAM consists of identifying and serving a company's strategically important customers. Even though KAM has been of interest to academia and to companies operating in the business-to-business market for more than twenty years (Ojasalo, 2001), the basic principles have been used by companies for much longer. As Zupancic (2008) pointed out: "Serving the most important customers differently is based on the common sense of good sales people."

National account management (NAM), the predecessor of KAM, has been the subject of academic research since the 1970s (see Pegram, 1972; Napolitano, 1997). The first companies using KAM (or NAM) programs were big companies selling consumer goods, such as Procter & Gamble (P&G) and Unilever. These companies started to concentrate on serving their most important customers with specific programs (Wengler, 2006, p. 1).

Even today, companies and researchers have different names for the management of important customers (or accounts). International account management and global account management are widely used terms (see Millman, 1996; Montgomery and Yip, 2000; Shi et al., 2004). The different account management concepts clearly differ based on their geographic scope[9] but also in the focus of research. Reisel et al. (2005) stated that national account literature largely focuses on individuals in dyadic relationships with customers. KAM literature, on the other hand, focuses on the selling team and the support role across the organization studied. Another

[9] Such as regional, national, international, or global.

differentiating factor is the focus of KAM on the overall importance of the customer, not only on the size of the customer, as in national or global account management.

2.1.2. Selection and Analysis of Key Accounts

Because a key account management program requires an exceptional commitment of different resources toward serving a customer, selecting the most important organizations as key accounts is extremely important (Capon, 2001, p. 50). Key account selection criteria should help identify a customer's attractiveness in terms of its potential specifically for the selling company (McDonald and Woodburn, 2007, p. 32). Different types of selection criteria exist when choosing key accounts for the company. Cheverton (2008, p. 276) identified five factor groups: 1) attractiveness of the customer, 2) likelihood of success, 3) compatible business objectives, 4) specific customer opportunities, and 5) own resources and capabilities. These specific attractiveness factor groups can be used in the evaluation of potential key accounts. In addition to the previous five groups of factors, McDonald and Woodburn (2007, p. 33) raised an additional group of factors to identify a customer with great potential for the good of the company. These factors include aspects such as a customer being a reference value for the whole company or a customer that would act as an important partner in research and development projects. Capon (2001, p. 53) identified organizational interrelationship factors that influence the attractiveness of a potential key account. One of the organizational interrelationship factors is cultural fit. In some situations, customers' unethical behavior may be reason enough to disregard the customer as a potential key account, even though the customer might be hugely attractive on the other measures of attractiveness.

Cheverton (2008, pp. 277-278) summarized the typical attractiveness factors that are used in a potential key account evaluation:

- Size (volume, value, profit)
- Growth potential (volume, value, profit)
- Financial stability
- Ease of access in serving the customer
- Closeness of existing relationship
- Strategic fit
- Can the customer be defined as an early adopter
- Does the customer value your offer
- Level of competition in the market
- Customer's market standing

Another perspective for the evaluation of key accounts comes from McDonald and Rogers (1998, pp. 81-82). They listed criteria that can be used to evaluate customer attractiveness. The authors suggest that the list items should be quantified, weighted and, scored. The McDonald and Rogers criteria list includes the following:

- The available size of spend
- The margins available
- The growth rate
- The location
- Purchasing criteria and processes
- Current suppliers

The optimal number of key accounts the selling company selects depends on factors such as the characteristics and strategic decisions of the company (company size, number of products and product lines, number of customers etc.) and the characteristics of the market sector in which the company operates. According to McDonald and Woodburn (2007, p. 30), the optimal number of key accounts is around 15 to 35 depending on the size and nature of the organization.

After selecting the key accounts, the company could benefit from classifying or categorizing its key accounts. After the classification, different strategies could be applied for each of the categories. McDonald and Woodburn (2007, pp. 38-39) identified four categories of key accounts: 1) star customers, 2) strategic customers, 3) status customers, and 4) streamline customers. Star customers are customers with a strategic importance in the future. Star customers may not currently have a strong relationship with the company, but they offer great potential in the future. Strategic customers are customers from whose business the company has a large share. Strategic customers are profitable for the company. The relationship with these customers is deep, but it should be deepened even further. The most important innovative projects should be developed with these customers. Status customers are strategic customers from the company's past. These customers are currently important and profitable, but there will be no growth with these customers in the future. The reason might be the customer's bad market situation or the company's lack of further potential to serve the customer. Streamline customers pose a challenging situation for the company. These customers may give the company a lot of business but at the same time are hardly profitable. Streamline customers are very cost conscious, and they negotiate prices frequently and aggressively. The future potential of these customers is poor.

2.1.3. Key Account Relationships

The development of customer relationships has been widely studied (see, e.g., Dwyer et al., 1987; Wilson, 1995). One of the seminal research studies is by Ford (1980). He identified five stages in the buyer-seller relationship: 1) pre-relationship, 2) early exploration, 3) development, 4) long term, and 5) final stage. Millman and Wilson (1995) concentrated on KAM relationships and found that those relationships typically progress along a transactional–collaborative continuum (Figure 4). The relational development model identifies six phases of KAM: pre-KAM, early KAM, mid-KAM, partnership KAM, synergistic KAM, and uncoupling KAM. McDonald and Rogers (1998, pp. 9-19), McDonald and Woodburn (2007, pp. 51-82), and Cheverton (2008, pp. 71-90) have further developed the model.

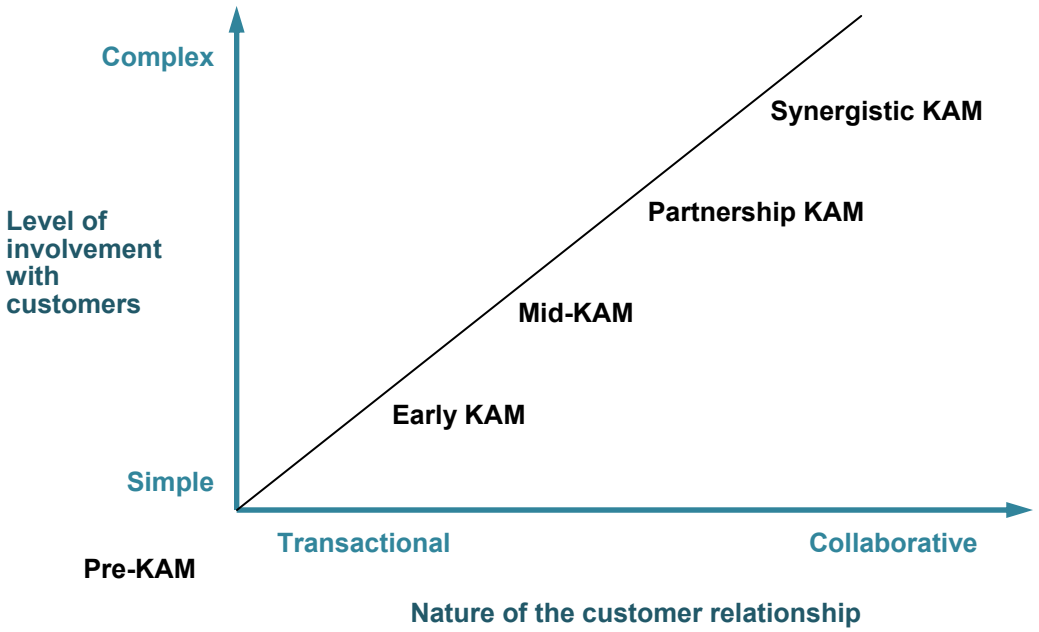


Figure 4. Key Account Relational Development Model (Millman and Wilson, 1995)

Pre-KAM

In the pre-KAM stage, the selling company tries to identify the potential of the buying company.[10] The company collects and analyzes information in order to make a decision as to whether the buying company has enough potential to merit key

[10] Instead of customer, the buying company could be called a prospect. This is because the buying company might not yet be engaged in any transactions with the selling company.

account status (Millman and Wilson, 1995). In the pre-KAM stage, the buying company can also send out signals (factual information), and messages could be exchanged before the decision on the actual transaction is made (McDonald et al., 1997). As part of the communication, the buying company may seek evidence of competence and competitiveness from the seller (Cheverton, 2004, p. 51). In this stage, the buying company already has its current suppliers. The selling company sometimes must have the patience to wait until the current suppliers do something wrong or the selling company's market offering has substantially better value for money than the current suppliers offering (McDonald and Rogers, 1998, p. 11).

Figure 5 describes the pre-KAM stage. Organizations are far apart from each other. The key account manager and the purchasing manager are the parties involved in the communication between the organizations. The nature of the communication at this level is uncoordinated and infrequent.

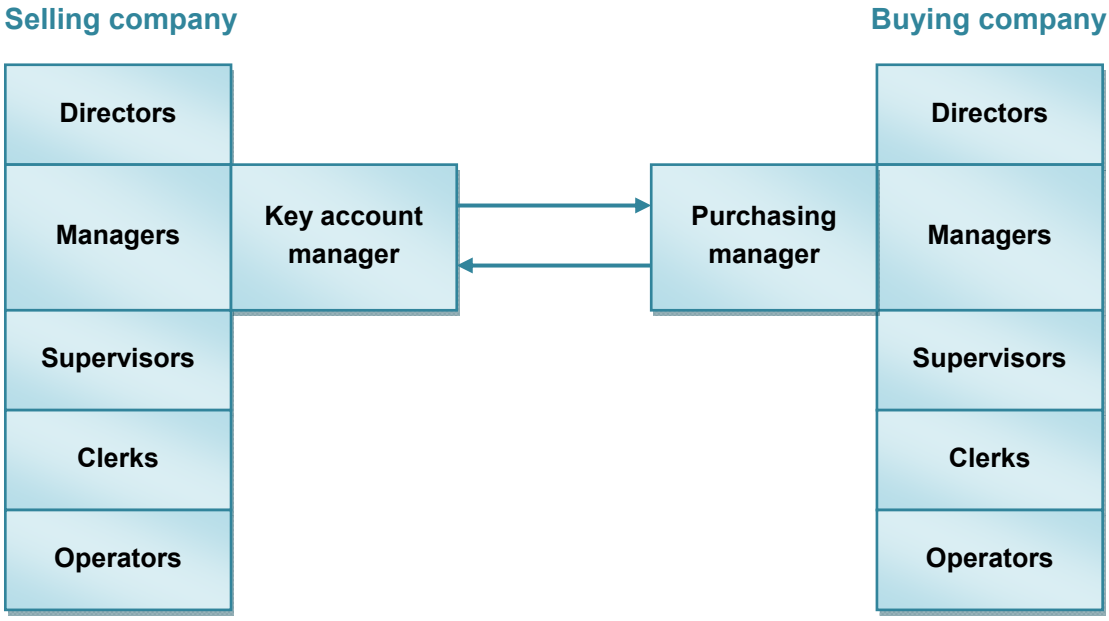


Figure 5. The Pre-KAM Stage (McDonald and Rogers, 1998, p. 10)

Early KAM

In the early KAM stage, the selling company starts to adapt its offering to better suit the customer's needs. Sales efforts focus on building trust by consistently fulfilling customer orders and by open communication with the customer (Millman and Wilson, 1995). In this stage, the buying company is probably still using some

products of the competitors of the selling company (McDonald and Rogers, 1998, p. 11).

Many customer relationships remain at the early KAM level, but some develop[11] further. Cheverton (2008, p. 74) argued that taking the KAM relationship to the next level is not a necessity. He continued that the higher KAM relationship stages should not automatically be considered to be "better" than the early stages. Only if the overall situation and mutual benefit of the selling and the buying companies indicate so, is advancement to the next KAM level warranted (Cheverton, 2008, p. 74).

Cheverton (2008, p. 75) illustrated the deepening of the KAM relationship by the increase or improvement of the complexity of the decision-making process, the sales volume, the level of interdependency between the organizations, the level of risk, and effective management of those risks, the value to the customer of the supplier's offering, and the supplier's competitive advantage. Figure 6 portrays the early KAM relationship. The selling and buying companies are closer together than in the pre-KAM stage. The communication between the companies is still performed mainly through the key account manager and the purchasing manager. The figure also explains the fragility of the early KAM relationship. If problems arise between the main contacts,[12] then the whole relationship is in danger (McDonald & Rogers, 1998, p. 12).

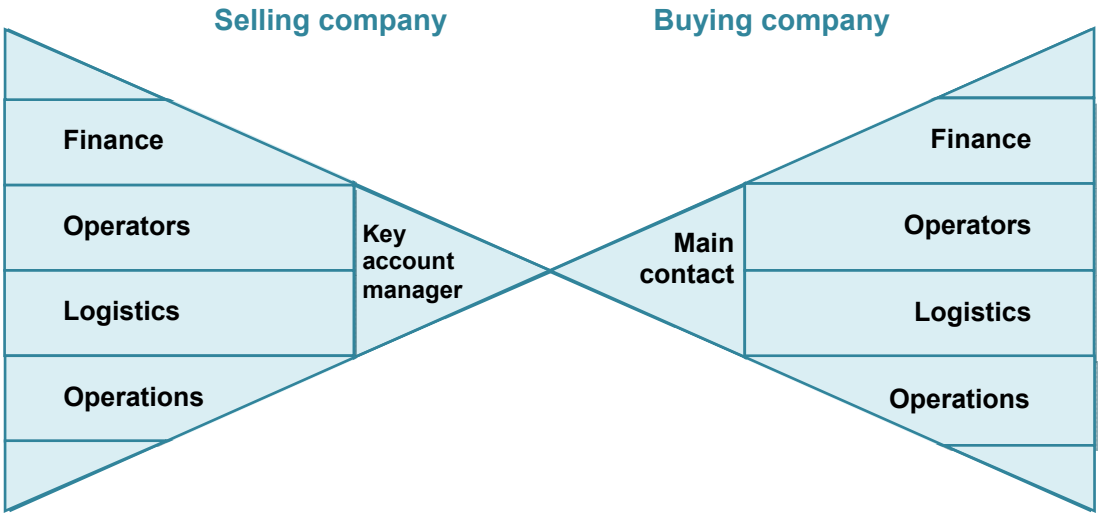


Figure 6. The Early KAM Stage (McDonald and Rogers, 1998, p. 12)

[11] Or are developed.
[12] The key account manager and the purchasing manager.

Mid-KAM

At the mid-KAM stage, a certain level of trust has been created between the selling company and the buying company (McDonald and Rogers, 1998, p. 13). During this stage, the number of cross-boundary contacts increase. Technical or research and development staffs might start making contacts directly with each other. The key account manager's role as a contact point may lose its importance. In addition, as the importance of the key account increases, the review process concerning the account tends to be lifted higher in the organization and is a reason senior management usually takes on that responsibility (Millman and Wilson, 1995). Figure 7 explains the mid-KAM stage in more detail. Contact between the different levels and departments of the selling and buying companies is formed under the auspices of the key account manager. The key account manager and the purchasing manager still play a major role in the interorganizational communication process. Team effort becomes a commonplace in the selling organization, and the level of internal communication is also expected to increase.

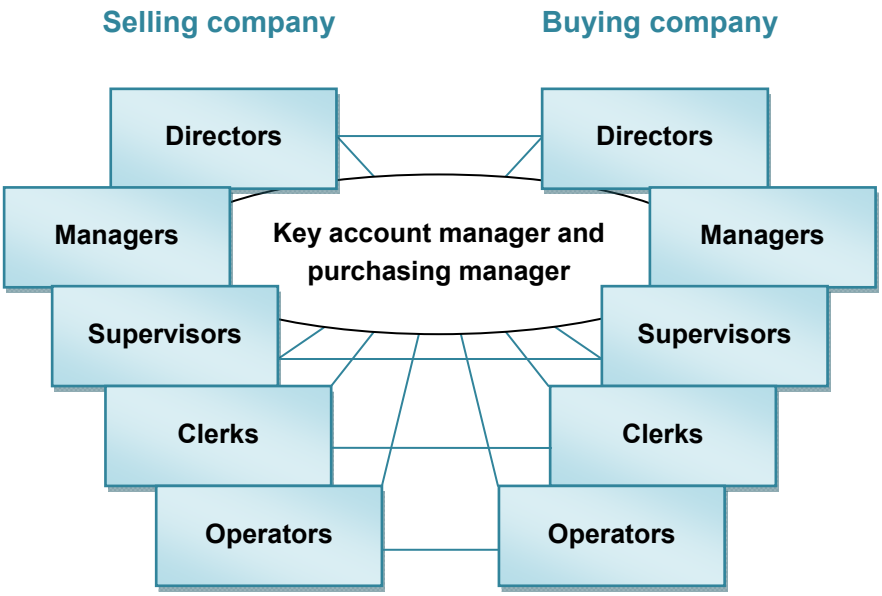


Figure 7. The Mid-KAM Stage (McDonald and Rogers, 1998, p. 13)

Partnership KAM

In partnership KAM, the buying company starts to consider the selling company as an external resource. Information sharing rises to a higher level; even sensitive

commercial information is shared on a regular basis (Millman and Wilson, 1995). Companies start working more closely with each other. Companies might undertake training together in the hopes of improving joint teamwork (Cheverton, 2008, p. 84). In partnership KAM, companies view pricing as a long-term issue. Prices may even be fixed at certain levels, ensuring continuing profitability for both parties (Cheverton, 2008, p. 84; McDonald et al., 1997). Anderson et al. (2009) stressed the complexity of partnership relationships. These authors identified partnering strategy as the forming of strong and extensive social, economic, service, and technical ties over time. Partnerships are normally long-term decisions. McDonald et al. (1997) identified partnership agreements as usually lasting at least for three to five years.

Figure 8 explains the partnership KAM stage in more detail. Many contacts have been formed between the companies. For example, the research and development people are in direct contact with each other with the communication influence of the key account manager is lessening. Similarly, the main contact's (normally the purchasing manager) relative proportion of the communication between the companies lessens. It has to be remembered that Figure 8 is an example and does not mean that all the connections between the companies have been formed (Cheverton, 2008, p. 83). Companies might have a partnership KAM relationship even if the companies do not have joint board meetings or joint research and development staff.

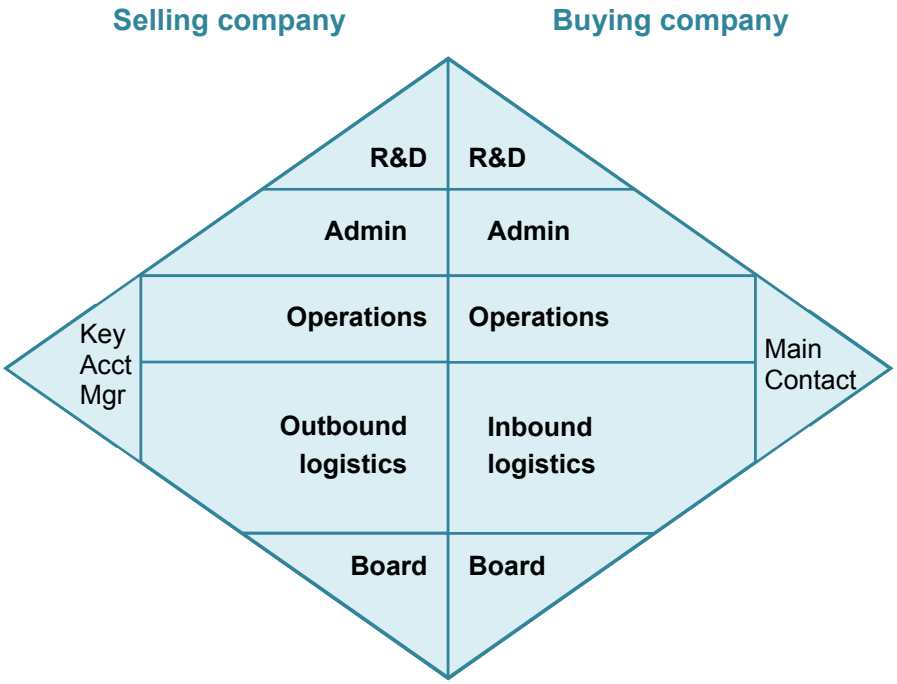


Figure 8. The Partnership KAM Stage (McDonald and Rogers, 1998, p. 16)

Synergistic KAM

In synergistic KAM, the selling company and the buying company evolve beyond the partnership level. The companies work so closely together that sometimes it is hard to distinguish two different companies. The selling company and the buying company form an entity creating joint value (Millman and Wilson, 1995). The two companies are so close together that the next step in moving closer would be a merger (McDonald and Woodburn, 2007, p. 52). Pricing and costing systems are completely transparent at the synergistic KAM level (McDonald and Rogers, 1998, p. 17). The high level of co-operation at this level can be seen from the integrated information systems of the two companies. The intentional ending of a synergistic KAM relationship would be extremely difficult and embarrassing (Cheverton, 2004, p. 63). Once a selling company has withdrawn from the synergistic KAM relationship, it is very unlikely that a new relationship can ever be formed between the two companies.

The organizational structure of the synergistic KAM can be seen in Figure 9. Cross-boundary teams form with participants from both the buying and selling companies (McDonald and Woodburn, 2007, p. 77). For example, research and development projects are undertaken jointly and marketing plans are co-created. Personnel from the selling company might be posted at the premises of the buying company (McDonald and Woodburn, 2007, p. 77). The borders of the companies are very vague. Identifying two different companies would be hard for an outsider.

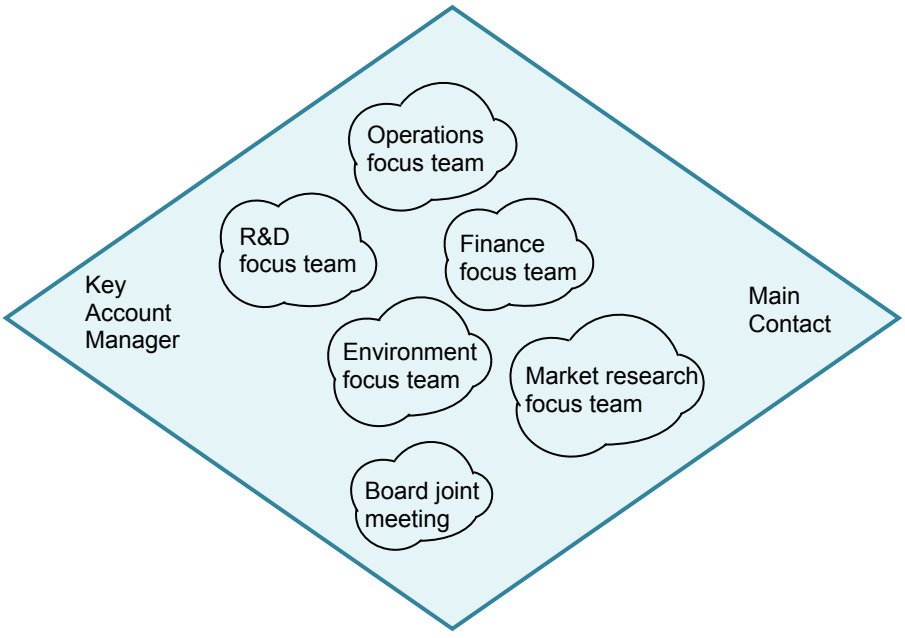


Figure 9. The Synergistic KAM Stage (McDonald and Rogers, 1998, p. 17)

Uncoupling KAM

Sometimes it is beneficial for the selling and buying companies to end the KAM relationship (Millman and Wilson, 1995). The uncoupling of a KAM relationship can occur at any stage of the relation development model (McDonald et al., 1997). McDonald et al. (1997) identified breach of trust as the most common reason for the breakdown of the KAM relationship. On the other hand, Grønhaug et al. (1999) found that relying too heavily on social ties between the organizations could be harmful for the relationship.

Cheverton's Mid-KAM model

While the development model, first introduced by Millman and Wilson (1995), is widely accepted in academia (Buttle, 2009; Cheverton, 2004), some different or adapted models have been proposed. Cheverton (2008, p. 78) based his model on the Millman and Wilson model, but the first KAM relationship phases progress differently. Early KAM is the same, but mid-KAM is described by the one-on-many type of relationship (Figure 10).

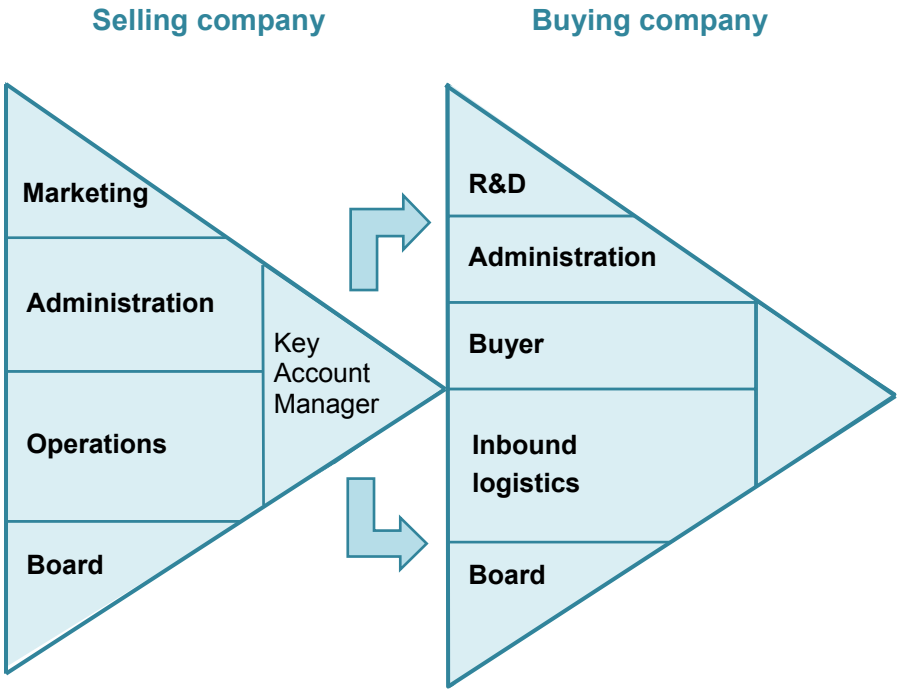


Figure 10. The One-on-Many Stage (Cheverton, 2008, p. 78)

In Cheverton's Mid-KAM model, the key account manager is the main contact from the seller's side. The buying company, on the other hand, has no single contact point. The key account manager communicates with various levels throughout the buying organization.

2.1.4. Development and Control of Key Account Strategies

Serving a key account without a key account plan is not a good business practice (Cheverton, 2008, p. 354; Ryals and Rogers, 2007). The purpose of a key account plan is, for example, to collect the relevant data concerning the key account, communicate the importance of the key account to the business as a whole, communicate objectives and actions to key account team members, and track the success of key account management efforts (Cheverton, 2008, pp. 354-355). The key account plan should include at least the following four items: 1) goals and targets, 2) own personnel resources and the customer contact points, 3) projects and activities, and 4) resources, risks, and contingencies (Cheverton, 2008, p. 357).

Sharma (2006) studied the factors in successful key account management programs and suggested four issues that companies should take into account when planning and implementing key account programs. 1) Key account relationships are more successful when the selling company has some relationship-specific assets, such as special customer knowledge or specific machinery, for the benefit of the customer. 2) Dissatisfaction plays a major role in the discontinuation of key account relationships. Therefore, selling companies should emphasize customer satisfaction in all customer contact situations. 3) Key account strategies are more successful when more social and personal bonds are developed between the buying and selling organizations. 4) Changes in the economic, competitive, or regulatory environment can pose challenges for the key account relationship. Selling companies should, therefore, monitor the environmental conditions and consider proactive strategies for these situations.

Millman and Wilson (1999) drew four main conclusions in relation to the KAM processes becoming more customer oriented. 1) The whole KAM process is likely to fail without complete senior management involvement. 2) Traditional views of buyer-seller relationships need to be re-examined, and cultural barriers hindering effective customer management must be removed. 3) The process of customer management involves supply chain management. Suppliers (and suppliers' suppliers)

are used to increase the value to the customer. 4) The KAM process must facilitate in-depth involvement with the customer if the customer focus is to be meaningful.

2.1.5. Roles of the Key Account Manager

Identifying the roles of the key account manager is difficult. First, the roles of key account manager can take a number of different forms (McDonald and Woodburn, 2007, p. 289). To further complicate the task, the roles, and responsibilities of key account managers change from relationship to relationship (Capon, 2001, p. 94). However, even with the challenges of changing situations, some general roles can be identified.

McDonald and Woodburn (2007, p. 289) divided the role of key account managers into implementation and facilitation roles. The implementation role includes tasks that are related to the selection of the relationship tactics and the fulfillment of those tactics. The implementation role can be further divided into three subcategories: 1) expert on the customer, 2) value developer, and 3) point of accountability. The expert on the customer understands the customer's business. The value developer helps the company create value for the customer. The value developer anticipates future customer needs and works continuously to add value to the customer. The point of accountability ensures that the customer gets things delivered that are promised to it. The role requires defining, briefing, and coordinating of commitments on the company's side. The facilitation role is about developing the customer relationship to a cross-functional level. The facilitation role can also be divided into three subcategories: 1) boundary spanner, 2) conduit, and 3) focal point of contact. The boundary spanner expands the customer relationship within the key account. The boundary spanner can seek out cross-selling opportunities in the customer organization. The conduit is a role in which the key account manager represents the customer in the manager's own organization and works as an ambassador. The conduit also works in the other direction, building up the company brand in the customer organization. The focal point of contact acts as a single contact point for the customer. For the own organization the focal point of the contact role works as a reference point.

Another way to categorize the key account manager roles from the supplier viewpoint is to divide them into internal and customer-facing roles. McDonald and Woodburn (2007, p. 292) included resource manager, risk manager, and team leader

tasks in the internal roles. Customer-facing roles include salesperson, competition monitor, and lever for a full range of capabilities tasks.

However, identifying the different tasks is not describing the whole picture. How the key account manager divides his or her time among the tasks he or she is responsible for is also very important. McDonald and Woodburn (2007, p. 307) asked experts to identify the activities of the ideal key account manager. Results are shown in Table 1.

Table 1. Ideal Usage of Key Account Manager Time Resources (McDonald and Woodburn, 2007, p. 307)

Activity	Share of time
Developing relationships	20%
Implementing deal operationally	15%
Developing industry knowledge, strategy, and planning	10%
Selling	5-10%
Ensuring internal alignment for deal commercially	5-10%
Understanding of internal capability	5%
Solving internal day-to-day problems	5%
Promoting brand/business	5%
Reporting/providing information	5%
Training and education	5%
Managing the team	5%
Other	10%
Total	100%

The most important task based on the time allocation is relationship development. Pure sales activity is considered to require only five to ten percent of key account managers' time. Some other tasks, such as promoting the company's brand or developing industry knowledge, can be seen as sales supporting tasks. Altogether, Table 1 gives a good idea of what kinds of tasks the ideal key account manager performs; however, the table does not necessarily give a perfect picture of the relative importance of these factors.

Hannah (1997) sheds more light on the matter by reporting a study in which national account managers and their supervisors identified five critical success factors in the account manager's job: 1) managing account relationships, 2) understanding the

account's business, 3) ensuring action and responsiveness to the customer, 4) involving others with the account, and 5) ensuring commitment to the national account program.

Another study concerning national account managers and salespeople was conducted by Wotruba and Castleberry (1993). They asked NAM salespersons and managers about their primary tasks, among other things. Overall, 23 percent responded that the primary task was to close orders and secure revenue. Another 34 percent considered building relationships as the primary task. Largest group, 37 percent of the respondents, said that serving as the team manager/coordinator was the main task. Finally, six percent chose the option "other."

2.1.6. Skills and Qualities of the Key Account Manager

To fill the roles identified in the previous chapter, the key account manager needs certain skills and qualities. Those skills and qualities are discussed in this sub-chapter.

Cheverton (2008, p. 317) described the general skill set required for the KAM tasks. This skill set includes strategic thinking, strategic influencing, business management, project management, team leadership, teamwork, innovation and creativity, coordination, managing change, managing diversity, coaching, and political entrepreneurship. KAM tasks are sometimes mistakenly considered as an extension of traditional sales tasks (Cheverton, 2008, p. 316). Nonetheless, the selling skills should not be forgotten. The role of the key account manager changes according to the stage of the relationship between the buyer and seller organizations (McDonald and Rogers, 1998, p. 113). This means that the skills needed to perform well in the key account manager job also change.

McDonald and Rogers (1998, p. 120) created a profile of the ideal key account manager. They identified four skills or qualities that would enable the manager to fulfill the expectations of the selling company and the buying company at higher relationship levels (i.e., mid-KAM, partnership KAM, or synergetic KAM). The four skills or qualities[13] are personal qualities, subject knowledge, thinking skills, and managerial skills.

[13] Shown in more detail in Table 2.

Abbratt and Kelly (2002) studied the perceptions of both customers and suppliers in the KAM context. The most important aspect, in both the suppliers' and customers' opinion, was the ability to identify problems and provide solutions. Understanding the customer was also an important aspect, alongside having strong interpersonal skills and the right kind of personality. Schultz and Evans (2002) presented evidence on key account manager communication activities and performance.

Table 2. Skills and Qualities of the Ideal Key Account Manager (McDonald and Rogers, 1998, p. 120)

Skills or qualities	Specific items
Personal qualities	Integrity
	Resilience/persistence
	Selling/negotiating
	Likeability
Subject knowledge	Product knowledge
	Understanding of business environment/markets
	Financial knowledge
	Legal knowledge
	Computer literacy
	Languages/cultural knowledge
Thinking skills	Creativity/flexibility
	Strategic thinking/planning
	Boundary spanning (e.g., ability to look from different perspectives)
Managerial skills	Communication skills
	People management/leadership
	Credibility
	Administration/organization

McDonald and Rogers (1998, pp. 113-116) also discussed the expectations the key account manager faces in the earlier phases of the relational development model. For example, in the pre-KAM and early KAM stages, presentation, negotiating and communication skills, persuasiveness, and integrity are skills and qualities that are considered beneficial performance-wise. Finding the match between customer needs and the competences of the selling company is also an important task of the key account manager that is crucial, especially in the early phase of the KAM relationship (Nätti et al., 2007).

As well as the different relationship stages demand different skills, different selling environments also demand different sets of skills. Millman (1996) studied the key account manager's role in systems selling[14]. Millman identified seven requirements for the key account manager: coordination, key account planning, external relationship management, internal relationship management, sales and profit responsibility, negotiation, and multi-cultural teamwork.

2.1.7. Current Research Focus in Key Account Management

Recent research on KAM has concentrated on issues such as the creation of a comprehensive KAM framework (see, Homburg et al., 2002; Shi et al., 2004; Zupancic, 2008), the weaknesses and challenges of KAM strategies (see, Piercy and Lane, 2006), implementation issues of KAM programs (see, Davies and Ryals, 2009; Wengler et al., 2006), and empirical testing of the common assumptions academia has made during the past few years (see, Ivens and Pardo, 2008). For a thorough review of the current KAM literature see Guesalaga and Johnston (2010).

2.2. Key Account Manager Job Performance

2.2.1. Measurement of Job Performance

The measurement of job performance has been identified as a major challenge for managers and researchers (Murphy, 2008). The two critical questions on measuring job performance are the following: 1) What to measure? and 2) How to measure? (Bailey, 1983, p. 41). This sub-chapter focuses on these questions (i.e., what are the aspects of key account manager job performance? and what are the optimal ways to measure those aspects?).

Job performance can be measured in different ways. To help determine the answer to the first question (what to measure), Smith (1976) classified three dimensions that can be used to analyze different forms of performance measures. The dimensions are as follows: 1) time span covered, 2) the specificity, and 3) the closeness to organizational goals. The time span covered describes the time delay from the work behavior to the time of the measurement. The time delay can vary from just minutes

[14] Systems selling means selling comprehensive packages of products and services.

to months or years. The specificity refers to the detail of the measure. The measure can be very specific; in key account management, the measure could be of the quality of the communication directed toward the customer. On the other hand, the measure can be very general, for example, measure of overall performance. The closeness to organizational goals dimension can be divided into behaviors, results, and organizational effectiveness levels. At the behaviors level, the measures focus on direct observations of job performance. At the results level, the measures are summary measures of the job performance. These measures combine observations from different time points. The measures can be subjective or objective. Examples of subjective measures are production output or sales figures. Objective measures include supervisor- or self-evaluations. The organizational effectiveness measures are organizational-level measures, for example, revenue growth, net income, or total customer satisfaction.

Self-reported Performance

Most methods of job performance measurement rely on some level on subjective judgment (Bailey, 1983, p. 39). The subjective judgment, in turn, may inflict bias on the measurement. The respondents in self-reports may also want to "fake" their responses in order to create certain impressions (Borgatta, 1968). In self-reports about job performance in which the respondent evaluates his or her own job performance, the bias normally affects the scores positively. The bias in self-reports is mainly due to the social desirability response[15].

The issue has been raised as to whether self-reports should be used in the evaluation of performance at all. Higgins et al. (2007) found that self-rated performance and supervisor-rated performance had little correlation with each other.

2.2.2. Adopted Model of Key Account Manager Job Performance

A limited number of studies exist on the job performance of the key account manager or closely related topics. Sengupta et al. (2000) created a model of key account salesperson performance. Their model consisted of strategic ability, communication quality, intrapreneurial ability, and customer trust as factors that affect key account salesperson perceived effectiveness. In the model, the communication quality and customer trust had direct influence on perceived effectiveness. In a different study,

[15] Socially desirable responding is examined in more detail in Sub-chapter 4.7.4.

Wotruba and Castleberry (1993) used a performance scale[16] for NAM managers and salespeople. The scale consisted of nine questions with which the NAM persons evaluated their performance compared to other national account salespeople. The questions concerned sales performance, quality and execution of account plans, development of customer relationships, competitive account conversions, and overall performance.

Three major groups of influences or criteria must be taken into account when defining the key account manager job performance for the current research purposes. First, defining the job performance of key account managers should draw on the roles, tasks, and priorities of the tasks that were presented in Sub-chapters 2.1.5 and 2.1.6.

Second, the nature of the targeted sample must also be considered. The targeted sample is individuals from different industries and companies with a key account manager title. The model of key account manager job performance must, therefore, be applicable to key account managers with very different responsibilities. For example, some key account managers do not have key account teams to manage, so the managers are solely responsible for delivering value to the key account.

Third, the definition should be something that is suitable to assess with the help of statistical surveys. The definition should be able to be measured by using a relatively small number of questionnaire items. A small number of items should contribute to better response rates.

With these influences and criteria in mind, key account manager job performance is defined for the current research purposes as consisting of two broad but distinct dimensions, namely: 1) sales performance and 2) relationship performance. Sales performance is quite easy to define. It includes such aspects as closing deals, closing profitable deals, and meeting sales goals. Relationship performance is bit more complex than sales performance. Relationship performance includes aspects such as the successful management of customer relationships and building relationships that will have a good future potential. Sharma (2006) identified that the social and personal bond between the selling and buying companies increases the success of key account management. Relationship performance as a concept encompasses the

[16] According to Wotruba and Castleberry (1993), the scale was first reported by Brown in 1988 in a presentation to the National Account Marketing Seminar with the topic of "Synopsis of a Report on National Account Marketing."

creation of these social and personal bonds. Hutt and Walker (2006) also hypothesized that relationship-building within the organization and toward customers is influential in key account manager performance. Even with traditional sales force performance, the research predicts a shift from traditional sales performance for a more complex view of performance. Piercy et al. (1998) defined the sales force performance as consisting of behavior performance and outcome performance, where outcome performance is the more traditional performance based on sales and behavior performance consists of performing tasks such as adaptive selling, teamwork, sales planning, and support activities.

The two dimensions of key account manager job performance, sales performance and relationship performance, are considered to be equal in weight concerning the total job performance. This results in the definition of overall job performance consisting of 50 percent sales performance and 50 percent relationship performance.

2.3. Personality

Personality psychology has long traditions. The beginning of personality psychology coincides with the early development of psychiatry. Early personality research in the late 19th century and early 20th century included Charcot's work on neuroses and Freud's theories of psychosexual development and ego, superego, and id as personality components (Charcot, 1877; Freud, 1905; Freud, 1927). In the first part of 20th century, personality psychology was heavily influenced by psychiatry and clinical psychology. Personality theories were mainly theories of the origins of dysfunctional behavior, and personality assessment was the diagnosis of the mentally ill (Hothersall, 1995, p. 294). A good example of this point is the MMPI (Minnesota Multiphasic Personality Inventory), which was the most widely used personality inventory in its time, although it is designed to identify psychopathology (Lubin et al., 1984).

Even with the long history of personality psychology, defining the term personality for conceptual purposes is difficult (Chamorro-Premuzic, 2007, p. 14; Scroggins et al., 2009). One reason for that is the lack of common agreement among personality psychologists over the use of the term personality (Engler, 2009, p. 2). Burnham (1968) explained that the word personality suggests the qualities of a human being, his or her motivation and the reasons for certain behavior. In Burnham's view, personality also implies aspects that are unique in a human: thoughts and differentiated behavior.

One way to analyze different approaches to personality psychology is to distinguish between nomothetic and idiographic approaches. Allport (1937, p. 22) identified nomothetic and idiographic approaches in the context of personality psychology. According to the nomothetic paradigm, individual differences can be described, explained, and predicted by predefined criteria or attributes (Chamorro-Premuzic, 2007, p. 14). On the other hand, the idiographic paradigm sees personality as so complex and unique that personality inventories or other tools cannot describe two different people (Chamorro-Premuzic, 2007, p. 14).

Among the most researched personality theories are the psychodynamic, behavioristic, phenomenological, and social-cognitive personality theories (Chamorro-Premuzic, 2007, pp. 42-45). Still the oldest and most persistent is the dispositional approach to personality (Engler, 2009, p. 261). Trait theories are the most common methods of the dispositional approach.

2.3.1. Trait-based Personality Theories

Trait-based personality theories have a long history. Measurement of personality took huge steps in the 1930s when two revolutionary books *Personality: A Psychological Interpretation* by Gordon Allport and *Explorations in Personality* by Henry Murray were published in 1937 and 1938, respectively (Segal and Coolidge, 2004). Allport's trait theory can be considered as one of the first trait theories.

As mentioned before, for the purposes of this research, personality is considered a combination of different traits. Thus, different trait theories are covered in detail. The remainder of this sub-chapter covers three relevant trait-based personality theories: Cattell's 16PF, the Five Factor Model, and the HEXACO framework.

Cattell's 16PF

One of the most widely utilized personality tests in the organizational setting is Cattell's 16PF (16 personality factors) (Furnham, 1992, p. 78). The model was first introduced in 1949 (Cattell and Cattell, 1995) and has been used to predict leadership, self-esteem, power dynamics, social skills, and coping (Cattell, 2004). Cattell's 16 personality factors are based on a lexical hypothesis, which is reasoning that all personality traits can be derived from the words of any language (Chamorro-Premuzic, 2007, p. 25). The inventory was designed as a multilevel measure of personality. The test also provides information about the Big Five personality

dimensions (Cattell, 2004). The 16 factors in Cattell's personality inventory are warmth, reasoning, emotional stability, dominance, liveliness, rule-consciousness, social boldness, sensitivity, vigilance, abstractedness, privateness, apprehension, openness to change, self-reliance, perfectionism, and tension (Chamorro-Premuzic, 2007, p. 25). A major criticism of Cattell's model has been raised regarding the poor results in the replication studies (Noller et al., 1987; Sells et al., 1970).

Big Five Personality Dimensions and Five Factor Model of Personality

The Big Five or Five Factor Model (FFM) is one of the most highly regarded trait theories of personality. In this model, variations of personality are explained by five orthogonal[17] factors: extraversion, agreeableness, conscientiousness, emotional stability (or neurotism), and openness to experience (Saucier and Goldberg, 2002). The first personality inventory developed specifically to measure the FFM was NEO-PI-R by Costa and McCrae in 1985 (Costa et al., 2002). The FFM model is used in this research as the main tool for assessing personalities.

Categorizing of personality in to five independent personality factors is not a new concept. The first time five common personality factors were described was when Thurstone conducted factor analytical studies in the 1930s (Scroggins et al., 2009). Another manifestation of the five factors of personality came from the United States Air Force's technical report from 1961. Tupes and Christal (1961, pp. 6-10) used factor analysis to identify five personality factors: surgency, agreeableness, dependability, emotional stability, and culture.

A major contributor to FFM was when five individual personality factors emerged from Goldberg's lexical research in early 1980s (Goldberg, 1981). The final step in the development of the FFM was when Costa and McCrae revised[18] their three factor model. Costa and McCrae had previously developed a three factor model of personality with the questionnaire approach. The redeveloped model included the two additional factors of agreeableness and conscientiousness, that were based on Goldberg's research (Costa et al., 2002). Later, McCrae, Costa, and Martin developed yet another version of the inventory, namely, NEO-PI-3. In that model, 37 of the NEO-PI-R items were replaced in order to improve psychometrics and reliability of the inventory (McCrae and Costa, 2007). Goldberg continued his work on FFM and developed the International Personality Item Pool (IPIP) inventory, which was

[17] Orthogonal factors have no correlations with each other.
[18] That is the reason their FFM inventory is known as Revised NEO-PI or by the shortened NEO-PI-R.

introduced in 1996 (Goldberg, 1999; Goldberg et al., 2006). The IPIP is one of the most utilized personality inventories in the world; it has been translated to over 25 languages and it has been completed over 500,000 times over the internet, where it has been open to the public for over ten years (Goldberg et al., 2006). A major reason for the success of the scale is its public domain nature. Individuals can complete and get results from the test for free. Researchers can also use the IPIP scales freely.

Since the early 1990s, many factor analytic studies of personality have been conducted (Pervin, 2003, p. 14). The studies have concentrated on personality ratings and self-report questionnaire responses. These factor and other statistical analyses have strengthened the credibility and influence of trait-based personality models such as the Five Factor Model (see, Fruyt et al., 2004; Heuchert et al., 2000; Hong, et al., 2008; Lim and Ployhart, 2006; McCrae et al., 2004; Tokar et al., 1999). During the last three decades, the validity of the FFM framework has been widely studied. The FFM framework has shown validity across sex, age, and culture (Heuchert et al., 2000; John and Srivastava, 1999; McCrae et al., 1998; McCrae et al., 2004; Nye et al., 2008).

HEXACO Model

Consensus over the FFM framework as an explanation of personality variation formed in the early 1990s. That consensus lasted until the early 2000s (Ashton and Lee, 2008). According to Ashton and Lee (2008), recent research evidence has led researchers to propose a theory in which personality is described by six instead of five factors. This new framework, called HEXACO, consists of six dimensions: honesty-humility (H), emotionality (E), extraversion (X), agreeableness versus anger (A), conscientiousness (C), and openness to experience (O) (Ashton and Lee, 2009).

Even though the framework is quite recent, different cross-cultural validation studies have been conducted (Ashton and Lee, 2010; Boles et al., 2004; Vries et al., 2008; Wasti et al., 2008). Even with a decent number of studies on the HEXACO framework, the majority of the research has still been conducted by Ashton and Lee. The use of this model was considered for this study, but more independent validity research is required to establish the credentials of the HEXACO framework.

2.3.2. Concept Definitions of Personality Traits

To develop a personality inventory (or any scale), the concepts that the inventory is supposed to measure must be carefully defined (Spector, 1992, p. 7). This

sub-chapter presents the definitions of the FFM personality traits that are used in the current research. First, a verbal definition of the trait is presented, and this definition is followed by definitions of the structural dimensions of the trait. Each of the five FFM personality traits is divided into six narrower traits or facets. These six facets are described in detail. The definitions are based on the NEO-PI personality inventory manual (Costa and McCrae, 2006, pp. 15-21).

Extraversion

The extraversion trait focuses on the quality and intensity of interpersonal interaction. Extraversion indicates activity level, need for stimulation, and capacity for joy. A person who scores high on the extraversion scale is sociable, active, talkative, person oriented, optimistic, fun-loving, and affectionate. A low-scoring person can be described as reserved, sober, restrained, aloof, task-oriented, retiring, and quiet. (Costa and McCrae, 2006, p. 16; Pervin, 2003, p. 48)

Extraversion can be considered as stemming from the following: 1) warmth, 2) gregariousness, 3) assertiveness, 4) activity, 5) excitement-seeking, and 6) positive emotions (Costa and McCrae, 2006, pp. 18-19). Individuals exhibiting warmth can be characterized as friendly, warm, sociable, affectionate, and outgoing. Aloof is the opposite of warmth. Gregariousness indicates sociable, outgoing, pleasure-seeking, talkative, and spontaneous individuals. Opposites of gregariousness are aloof and withdrawn. Assertiveness manifests as aggressive, assertive, self-confident, forceful, and enthusiastic individuals. Activity is associated with qualities like energetic, hurried, quick, determined, enthusiastic, aggressive, and active. Excitement-seeking means pleasure-seeking, daring, adventurous, charming, handsome, spunky, and clever. Finally, positive emotions manifest as enthusiastic, humorous, praising, spontaneous, pleasure-seeking, optimistic, and jolly. (Chamorro-Premuzic, 2007, p. 26; Costa and McCrae, 2006, pp. 18-19)

Agreeableness

Agreeableness as a personality trait indicates the interpersonal orientation along the axis of compassions to antagonism. Agreeableness can manifest itself in a person's thoughts, feelings, and actions. A person who scores high on the agreeableness scale can be described as soft-hearted, trusting, helpful, forgiving, gullible, and straightforward. On the opposite end of the scale, a person can be portrayed as cynical, rude, suspicious, uncooperative, vengeful, ruthless, irritable, and manipulative. (Costa and McCrae, 2006, p. 20)

Agreeableness consists of six facets: 1) trust, 2) straightforwardness, 3) altruism, 4) compliance, 5) modesty, and 6) tender-mindedness (Costa and McCrae, 2006, p. 20). Trust exhibits itself in a forgiving and trusting person. A lack of trust can be seen in a suspicious, wary, and hard-hearted person. A lack of straightforwardness shows in a complicated, clever, flirtatious, shrewd, and autocratic person. Altruism is a facet that depicts a warm, soft-hearted, gentle, generous, kind, and tolerant person. The compliance facet can be described by its negative meanings. Lack of compliance in a person means a stubborn, demanding, headstrong, impatient, intolerant, and outspoken individual. Likewise, modesty is more easily described by its opposites (negative meanings). Show-off, assertive, argumentative, and aggressive are adjectives that describe a person lacking modesty. Tender-minded persons can be portrayed with adjectives such as warm, friendly, gentle, and kind. (Chamorro-Premuzic, 2007, p. 26; Costa and McCrae, 2006, p. 20)

Conscientiousness

Conscientiousness represents an individual's degree of organization, persistence, and motivation in goal-directed behavior. Conscientious persons are purposeful, systematic, strong-willed, and determined. Individuals who score high on the conscientiousness scale are organized, reliable, self-disciplined, punctual, and neat. Individuals with low conscientiousness scores are aimless, unreliable, lazy, careless, negligent, and hedonistic. (Costa and McCrae, 2006, p. 17; Pervin, 2003, p. 48)

The conscientiousness trait has the following six facets: 1) competence, 2) order, 3) dutifulness, 4) achievement-striving, 5) self-discipline, and 6) deliberation (Costa and McCrae, 2006, pp. 20-21). High scorers in competence are efficient, self-confident, thorough, confident, and sensible. The order facet describes a neat, tidy, and well-organized person. Dutifulness shows in an individual as a tendency to strictly fulfill his or her moral obligations and to stand by his or her ethical principles. Low scorers on dutifulness are distractible and undependable. Achievement-striving individuals are considered to be thorough, ambitious, industrious, determined, and persistent. They aim high and work hard to achieve the goals they have set for themselves. High scorers in self-discipline are organized, energetic, and industrious. They have the ability to motivate themselves to finish the tasks they have set. The final facet of conscientiousness is deliberation. Individuals who score high in this facet are cautious and deliberate. They are very careful about the things they do. Low scorers could be characterized as impulsive, careless, impatient, and moody. (Chamorro-Premuzic, 2007, p. 26; Costa and McCrae, 2006, pp. 20-21)

Emotional Stability

The emotional stability scale goes from adjustment to emotional instability. An absence of emotional stability identifies individuals prone to psychological distress. People with high scores in emotional stability are calm, relaxed, unemotional, hardy, secure, and self-satisfied. People with low scores in emotional stability are prone to worry, nervous, emotional, insecure, inadequate, and hypochondriacal. (Costa and McCrae 2006, p. 15; Pervin, 2003, p. 48)

Emotional stability has six facets that describe the absence of emotional stability. The scoring in these facets is reversed when calculating the emotional stability score. Emotional stability (or, rather, the opposite, neuroticism) has the following facets: 1) anxiety, 2) angry hostility, 3) depression, 4) self-consciousness, 5) impulsiveness, and 6) vulnerability (Costa and McCrae, 2006, p. 18). Anxiety presents itself in an individual as a tendency to be fearful, nervous, tense, and prone to worry. Low scorers are confident, calm, relaxed, and optimistic. Angry hostility represents the tendency to experience anger, frustration, impatience, and bitterness. Low scorers are gentle, easy-going, and slow to anger. Depression as a facet describes a sad, hopeless, pessimistic, moody, and anxious individual with a tendency to worry. A high self-consciousness score depicts a shy, defensive, and inhibited individual. Self-conscious people are uncomfortable around others and might be sensitive to ridicule. Low scorers are self-confident and are therefore less disturbed by awkward social situations. Impulsiveness indicates an individual who has little control over his or her own desires, cravings, or urges. Low scorers have a higher tolerance for frustration. They can more easily fight their urges and desires without giving in. Vulnerability is manifested as the incapability of coping with stress or becoming dependent. Vulnerable people perceive themselves as incapable of handling themselves in a difficult situation. (Chamorro-Premuzic, 2007, p. 26; Costa and McCrae 2006, p. 18)

Openness to Experience

Openness to experience represents an individual's tendency to engage in intellectual activities and experience new sensations and ideas (Chamorro-Premuzic, 2007, p. 26). Openness to experience represents proactive seeking and appreciation of experiences, both familiar and unfamiliar. Individuals with a high score in openness to experience can be characterized as curious, creative, original, imaginative, and untraditional. Low-scoring individuals are conventional, down-to-earth, and inartistic. (Costa and McCrae, 2006, p. 16; Pervin, 2003, p. 48)

Openness to experience consists of the following: 1) openness to fantasy, 2) openness to aesthetics, 3) openness to feelings, 4) openness to actions, 5) openness to ideas, and 6) openness to values (Costa and McCrae, 2006, p. 19). Openness to fantasy is a facet that describes an individual as being dreamy, imaginative, humorous, mischievous, idealistic, artistic, and complicated. High scorers have a vivid imagination and an active fantasy life. Openness to aesthetics shows in a person as an appreciation for arts and beauty. Art, music, and poetry have a special place on their hearts. High scorers in aesthetics are imaginative, inventive, versatile, and artistic. The openness to feelings facet means the openness to an individual's inner feelings and emotions. A high scorer experiences his or her emotions in a deeper and more differentiated way. Openness to actions represent the willingness to try out new things, such as traveling to a new places or listening to new types of music. High scorers are imaginative and adventurous; they seek novelty and variety. Low scorers like to maintain routines and find change a challenge. The openness to ideas facet represents the tendency to be open-minded toward new ideas. High-scoring individuals are typically interested in philosophical arguments and have intellectual curiosity.[19] Openness to values represents the tendency to be open to re-examination of social, political, and religious values. Low scorers tend to honor tradition and be conservative and cautious. (Costa and McCrae, 2006, p. 16; Pervin, 2003, p. 48)

2.3.3. Using FFM Traits to Predict Job Performance

Before the 1990s, the evidence for personality characteristics or traits predicting job performance was not strong (Reilly and Chao, 1982; Schmitt et al., 1984). The situation changed after Tett et al. (1991) and Barrick and Mount (1991) published the first comprehensive meta-analyses concentrating on FFM traits as predictors of job performance. The results of both analyses were that statistically significant relationships emerged between some personality traits and job performance. One of the strongest and generalized relationships was with conscientiousness and job performance. After Tett et al. (1991) and Barrick and Mount (1991) analyses were published, more research on the topic was conducted. Salgado (1997) examined FFM traits and job performance with a European sample. Hurtz and Donovan (2000) conducted their meta-analysis concentrating on criterion-related validity. Salgado (1997) and Hurtz and Donovan (2000) results were close in line with the previous analyses by Tett et al. (1991) and Barrick and Mount (1991).

[19] Intellectual curiosity does not necessarily mean a high intelligence level of the individual (Costa and McCrae, 2006, p. 19).

2.4. Research Hypotheses

The objective of the research was to identify the relationships between key account manager performance and personality. After defining personality and key account manager performance, we can now formulate the research hypotheses. The hypotheses are divided based on the five personality factors introduced in Sub-chapter 2.3.2.

Extraversion

Extraversion has been found to correlate with manager and salesperson job performance (Barrick and Mount, 1991). Wanberg et al. (2000) found that people with higher extraversion were more comfortable networking and that they exhibited more networking behavior. This suggests that extraversion would also correlate with relationship performance. Hence, the following hypothesis can be formulated.

> *Hypothesis 1*: Extraversion is positively related to (a) sales performance, (b) relationship performance, and (c) overall job performance.

Agreeableness

People with high agreeableness are sympathetic to others and eager to help them (Costa and McCrae, 2006). It is likely that this helps key account managers to form better relationships with co-workers and customers.[20] Organ and Lingl (1995) found that agreeableness was linked to job satisfaction in the work relationship context. Thus, the following research hypothesis are presented.

> *Hypothesis 2*: Agreeableness is positively related to (a) relationship performance and (b) overall job performance.

Conscientiousness

People with high conscientiousness are purposeful, strong willed, and determined (Costa and McCrae, 2006, p. 17). Therefore, it can be theorized that

[20] It should be noted that Barrick and Mount (1991) and Salgado (1997) concluded that agreeableness is not a strong predictor of job performance.

conscientiousness has a strong relationship with job performance. In addition, in empirical work, conscientiousness has been consistently found to correlate with job performance in different fields (Barrick and Mount, 1991; Hurtz and Donovan, 2000; Salgado, 1997; Salgado, 2003). The following hypothesis can be formulated.

Hypothesis 3: Conscientiousness is positively related to (a) relationship performance, (b) sales performance, and (c) overall job performance.

Emotional Stability

Emotional stability manifests itself as a tendency to cope in stressful situations. These qualities might be helpful in professions such as surgeon or truck driver, but the usefulness of these qualities is somewhat limited in the key account manager context. The research findings on this subject are mixed. According to Barrick and Mount (1991) and Hurtz and Donovan (2000), emotional stability cannot be considered as a valid predictor of job performance for managers or for salespeople. On the other hand, Salgado (1997) concluded, based on a European sample, that emotional stability would be a valid predictor of job performance across occupational groups. In addition, Barrick et al. (1998) found that emotional stability is positively related to job performance in service jobs. Nonetheless, the following hypothesis is presented.

Hypothesis 4: Emotional stability is not related to job performance.

Openness to Experience

Studies have shown that openness to experience is not a good predictor of job performance (Barrick and Mount, 1991; Hurtz and Donovan, 2000; Salgado, 2003). Therefore, the following hypothesis is formulated.

Hypothesis 5: Openness to experience is not related to job performance.

The following table (Table 3) summarizes the research hypotheses.

Table 3. Summary of the Research Hypotheses

Hypothesis 1	Extraversion is positively related to (a) sales performance (b) relationship performance (c) overall job performance
Hypothesis 2	Agreeableness is positively related to (a) relationship performance (b) overall job performance
Hypothesis 3	Conscientiousness is positively related to (a) relationship performance (b) sales performance (c) overall job performance
Hypothesis 4	Emotional stability is not related to job performance.
Hypothesis 5	Openness to experience is not related to job performance.

Figure 11 shows the relationships predicted by the research hypotheses.

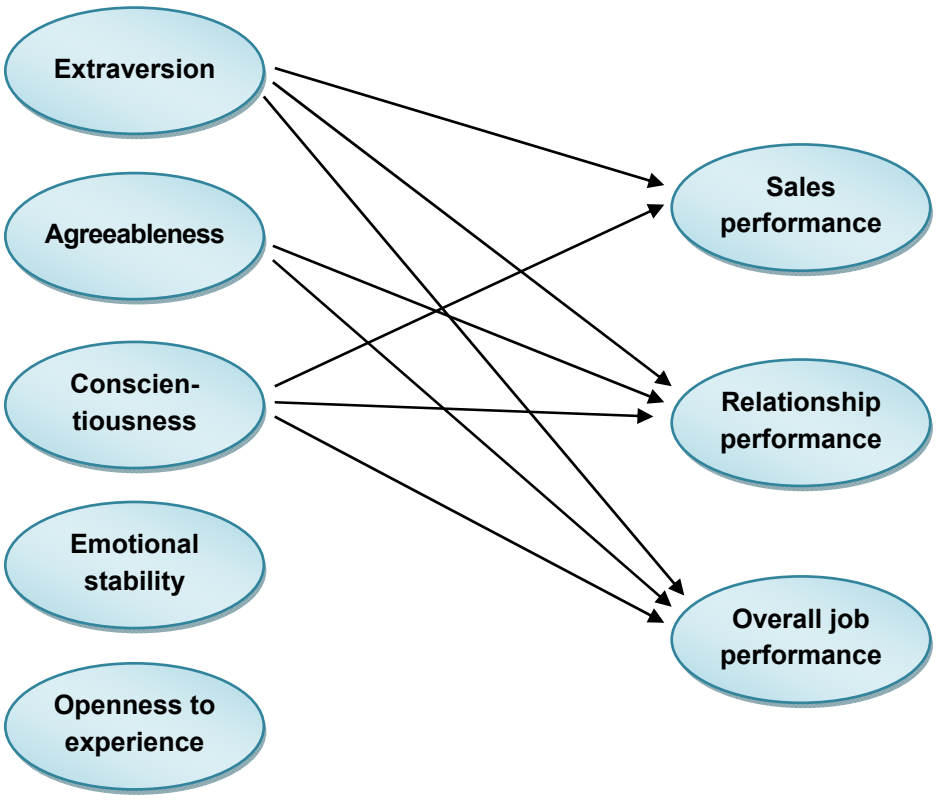


Figure 11. Research Hypotheses

3. DEVELOPMENT OF A SHORT PERSONALITY ASSESMENT INVENTORY

"First, shalt thou take out the holy pin."
- The Book of Armaments (Chapter 2, Verse 9)

One of the research tasks was to develop a Finnish personality inventory for assessing personality. This chapter describes that development process of the short personality inventory. For statistical research, the inventories are usually shorter than those that would be used in assessing individual personalities. For example, the NEO-PI-R Finnish, United States, and United Kingdom versions consist of 240 items (Costa and McCrae, 2006, p. 3), while the short versions, like NEO-FFI and NEO-FFI-3, consist of 60 items (McCrae and Costa, 2007). Responding to 240 items in a mail survey as compared to 60 items might make a big difference in questionnaire response rates. This is one of the reasons why the short version of the personality inventory was considered to be better for this research.

During the research, a search for a suitable Finnish personality inventory was conducted. It was found that a Finnish version of the NEO-PI-R inventory exists (Lönnqvist and Tuulio-Henriksson, 2008). The problem with the inventory, as well as with the English-language versions is the proprietary nature of the inventory. Therefore, the NEO-PI-R, or the short versions of it, were not considered as suitable options for use in this research.

After the unsuccessful search for a suitable Finnish inventory, it was decided that as part of the research, a short personality inventory mapping the Five Factor Model (FFM) was to be developed. This inventory will be based mainly on the public English-language International Personality Item Pool (IPIP) inventory developed by Goldberg (1999).

The development process of the short Finnish personality inventory follows Spector's (1992, p. 8) guidelines for the construction of summated rating scales. Steps in the development process are presented in Figure 12. Some of the names of topics identified by Spector (1992, p. 8) are slightly modified to better describe the development of a personality assessment inventory. Figure 12 also shows the corresponding sub-chapters of this dissertation wherein the development steps are illustrated in more detail. In the first phase or step, personality and personality traits are clearly defined. The definitions are based on previous theories and literature. The definitions are presented in Sub-chapter 2.3.2. In the second phase, a pilot model of the personality inventory is created. The inventory is based on the construct definitions and on existing English personality assessment inventory. In addition to the individual inventory items, the answer choices, and answering instructions are formulated. The pilot model was tested to obtain feedback on individual inventory items and acquire an overview of the statistical validity of the inventory. After improvement and respecification of the pilot model, the resulting final personality inventory (model) is administered to a large sample. The scales and individual items are also analyzed at this stage. In the last phase, the model is validated and normed. The following sub-chapters describe in detail the inventory development process.

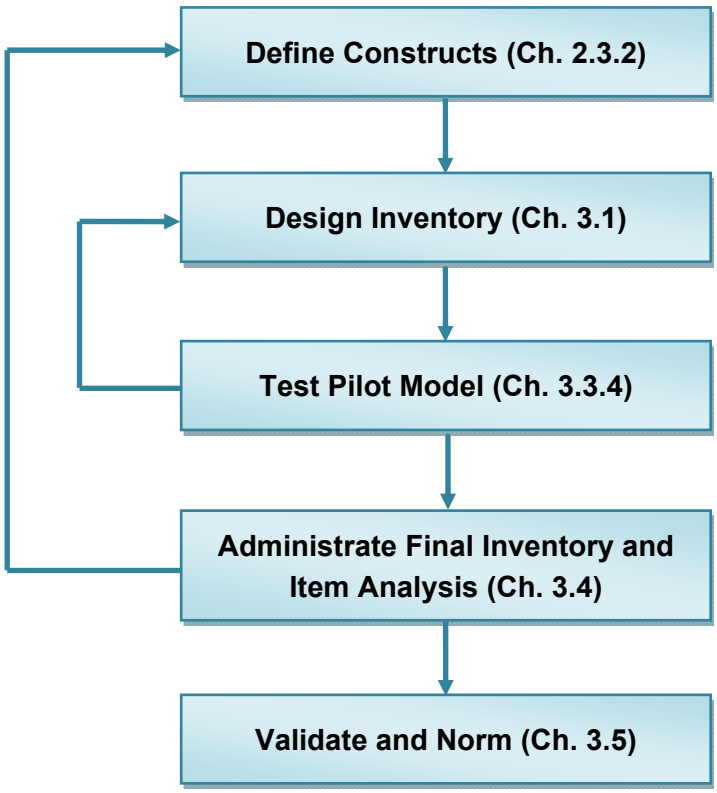


Figure 12. Inventory Development Process

3.1. Inventory Design

As stated previously, the concept definition of personality was introduced in Sub-chapter 2.3.2. Consequently, this sub-chapter can focus on designing the inventory, the second phase of the inventory development (Figure 12). Spector (1992, p. 23) identifies five rules or guidelines that should be considered when individual inventory items are generated. Each item should:

- express one and only one idea
- use both positively and negatively worded items
- avoid colloquialism, expressions, and jargon
- consider the reading level of the respondents
- avoid the use of negatives to reverse the wording of an item

These guidelines were applied or considered in the development of scale items. Items were written in a fashion that would minimize double meanings and ambiguity. All except one of the five scales use negatively[21] worded items. The negatively worded items accounted for 28 percent of all the items[22]. The major benefit of using both positively and negatively worded items is bias reduction. Biases like acquiescence, where a respondent tends to agree to all item statements regardless of the content, can be minimized. If all the questions were positively worded, the respondent with acquiescence tendencies would get high scores. If, on the other hand, both negatively and positively worded questions existed, then the respondent with acquiescence tendencies would score closer to average, thus reducing bias. Contrary to the last guideline, some negatives are used to reverse the wording in the items. The use of reverse wordings is kept as minimal as possible.

Saucier and Goldberg (2002) identified the psychometric criteria for the development of factor markers. Factor markers are basically inventory items that can be used to optimally represent a factor. In the personality inventory context, selection of factor markers normally means the selection of optimal items from a larger item pool to represent a personality trait scale (Saucier and Goldberg, 2002). The identified criteria becomes a relevant guideline for this research because the personality inventory is a reduced version of its initially larger pool of items.

[21] Also called reversed items. Negatively worded items result in scores that are reversed from the other items. These items must be reverse coded before further analysis.
[22] That is, 11 out of 40 items.

Saucier and Goldberg (2002) identify altogether ten criteria, as follows: 1) clearly understandable items, 2) balanced keys, 3) intuitive fit between item and construct, 4) suitable bandwidth, 5) maximizing internal consistency, 6) factor saturation, 7) factor discrimination, 8) scale brevity, 9) mutual orthogonality among marker scales, and 10) equidiscrimination. The first guideline, clearly understandable items, emphasizes understandability of the inventory items. The use of familiar words and no conjunctions makes the items more clearly understandable (Saucier and Goldberg, 2002). Balanced keying goes even further than Spector's (1992, p. 23) guide with regard to the use of both negatively and positively worded items. Balanced keying means that the number of negatively and positively worded items should be equal. The researcher should always consider the intuitive fit between item and construct. The use of statistical techniques should not be the only method for choosing the scale items. The researcher should use judgment concerning an item's suitability to represent a specific construct. In the quest for high internal consistency, a researcher might select items that are highly homogeneous. The selection that might complement statistical measures[23] could at the same time decrease the validity of the scale. The researcher must, therefore, consider what the suitable bandwidth for the construct is. In other words, should the items be more heterogeneous and cover the construct more broadly? Maximizing internal consistency as a criteria means that the items should be selected in a manner that maximizes the internal consistency of the scale. Normally, this implies the maximization of the coefficient alpha measure. Factor saturation is one of the key criteria and refers to the high item loadings on the factor the item is supposed to represent. Factor discrimination means that items do not load strongly on the factors that they are not supposed to represent. This becomes very important in situations like the one with the FFM where the five factors are considered to be orthogonal (that is, not correlating with each other). Scale brevity advises the researcher to keep the scales short. Shorter scales are more efficient to measure, which makes the scale more valuable. The pursuit of shorter scales may still be harmful to validity when a researcher tries to maintain the internal consistency levels with fewer and fewer items. This may lead to excessively homogeneous scales. Mutual orthogonality among marker scales means that the different scales should be uncorrelated toward each other. Finally, equidiscrimination means that the items should be discriminating at different levels. To have equidiscrimination, two items representing the factor should be able to differently differentiate the sample. For example, the first item could differentiate the top 25 percent from the bottom 75 percent and the second item could differentiate the top 50 percent from the bottom 50 percent.

[23] Like the coefficient alpha.

Saucier and Goldberg's (2002) criteria and Spector's (1992, pp. 23-26) rules for writing good scale items, presented above, are adopted as the framework for the development of the items in the short Finnish FFM personality inventory.

3.2. Analyzing Tools Used in the Development and Evaluation of the Inventory

Coefficient alpha, item-total correlation, exploratory factor analyses, and confirmatory factor analyses are tools that can be used in the development and evaluation of a measurement scale (Bollen and Lennox, 1991; Gerbing and Anderson, 1988). The following section introduces the statistical analyses that are used in the pilot test and final inventory item analysis. Further, the calculated goodness of fit indices are presented with their reference values.

3.2.1. Principal Component Analysis

The idea behind principal component analysis is to be able to reduce variables from a larger set of observed variables (Hatcher, 1994, p. 2). Principal component analysis can be used to identify item loadings on the factor and also to clarify the internal structure of a factor (Hatcher, 1994, p. 12).

Communality is used in principal component analysis. Communality identifies the variance in an observed variable that is explained by the retained factor (Hatcher, 1994, p. 13). Large communalities are displayed when the observed variable loads heavily on the retained factor or factors. Communality estimates are calculated by summing up squared loadings. Costello and Osborne (2005) state that, in the social sciences, communalities range from .40 to .70, and that if communality falls below .40, the research should consider that the current item is not related to the others.

3.2.2. Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) was used to help the selection process of the scale items. The use of CFA requires knowledge of the underlying latent variable structure (Byrne, 2001, p. 6). A model or relationship of the observed variables must

be specified before the factor analysis, whose task then is to test the goodness of fit between the model and observed data (Byrne, 2001, p. 6; Hatcher, 1994, p. 289). In essence, CFA is a way to test how measured variables represent smaller numbers of constructs (Hair et al., 2010, p. 693). The analysis helps to identify the factor loadings of individual items. Cross loadings can be studied with the help of CFA. The analysis also helps to define the optimal number of items. In this research, CFA was also employed to test the clarity of the factor structure of the personality inventory.

Hatcher (1994, p. 259) identifies ten necessary conditions for using CFA, as follows:

1. Interval- or ratio-level measurement for all indicator variables
2. Minimal number of values[24]
3. Normally distributed data
4. Linear and additive relationships
5. Absence of multicollinearity
6. Inclusion of all nontrivial causal variables
7. Overidentified model
8. Minimal number of observations[25]
9. At least three indicator variables per latent factor
10. A maximum of 30 indicator variables (for simplicity and model fit purposes)

3.2.3. Coefficient Alpha

Coefficient alpha[26] measures the internal consistency of a scale (Cronbach, 1951). Coefficient alpha values range from zero to one. The higher the score, the higher is the internal consistency.

Nunnally (1978, p. 245) and Hatcher (1994, p. 339) recommend that, in basic research, coefficient alpha should be at .70. Nunnally also states that, in basic research, achieving alphas much beyond .80 is a waste of time. Recently, higher levels of acceptable coefficient alpha have been called for (Bryman and Cramer, 2005, p.77; Kline, 2005, p. 59). The acceptable level of alpha is also dependent on the context of the research. In personality research, lower alphas can be accepted. Robinson et al. (1991, p. 13) indicate that, in personality psychology, coefficient

[24] Indicator variables should be continuous and should assume a minimum of four values.
[25] Larger than 150 observations or 5 observations per parameter to be estimated.
[26] Also known as Cronbach's alpha.

alpha levels from .60 to .70 can still be rated as moderate. In short personality inventories, alphas are typically in the .60 to .90 range (Parker et al., 2008; Tokar et al., 1999). McCrae and Costa (2004) report coefficient alphas for their NEO-FFI (60 item) scale ranging from .68 to .86. In later study Tews and Tracey (2008) report NEO-FFI coefficient alphas for their sample of 87 ranging from .69 to .86. (.73 for extraversion, .69 for agreeableness, .84 for conscientiousness, .86 for emotional stability, and .72 for openness to experience). In other studies, Parker et al. (2008) report coefficient alphas for NEO-FFI on a sample of 523 ranging from .64 to .84 and Sherry et al. (2007) report alphas for NEO-FFI on a sample of 350 ranging from .68 to .85.

The SAS software that was used in the statistical analysis provides two types of coefficient alphas (i.e., the raw and standardized alphas). The raw alphas are best suited to situations where variances of the items are relatively homogenous. Moreover, since that is the case in this study, those raw alphas are used in the following analysis.

3.2.4. Goodness of Fit Indices

Goodness of fit indices (or fit indices) indicate the goodness of fit between the hypothesized model and the observed data. In this sub-chapter, the most commonly used goodness of fit indices, and the cut off (or suggested) values for those indices are presented. The goodness of fit indices are used later in the research in the evaluation of the personality inventory.

Chi-Square

Chi-square (χ^2) is a traditional measure of overall model fit (Howell, 1997, p. 137; Hu and Bentler, 1999). Chi-square tests the validity of the specifications of factor loadings, factor covariances, and error variances for the studied model (Byrne, 2001, p. 79). The chi-square statistic is associated with probability. Low probability indicates poor fit for the model (Byrne, 2001, p. 80). For a good model fit, the probability should be nonsignificant, that is, greater than .05 (Hatcher, 1994, p. 339). There is also a guideline for the ratio of chi-square and degrees of freedom (DF). According to Hatcher (1994, p. 339), the chi-square/DF ratio should be at least 2. The use of chi-square has major drawbacks; for example, with larger sample sizes the chi-square can reject a valid model (Bentler and Bonnet, 1980; Cole, 1987; Kline, 2005, p. 136).

GFI and AGFI

The goodness-of-fit index (GFI) is calculated as a ratio of the sum of the squared discrepancies to the observed variables (Halloway, 1998, p. 27). The GFI can have values ranging from 0 to 1. Values over .90 are considered to indicate a good model fit (Halloway, 1998, p. 27). A version of the GFI that is adjusted for the degrees of freedom is called the adjusted goodness-of-fit index (AGFI). An AGFI over .80 is normally an indicator of good model fit (Cole, 1987).

CFI and NFI

Comparative fit index (CFI) was introduced by Bentler (1990). The CFI is an incremental fit index, where the index assesses how well the estimated model fits in relation to an alternative baseline model (Hair et al., 2010, p. 668). The CFI is an improved version of the normed fit index (NFI) (Bentler, 1990). The CFI and NFI range between 0 and 1. According to Hatcher (1994, p. 339) and Kline (2005, p. 140), the CFI should be above .90; the closer to 1.00, the better.

RMR and SRMR

The root mean square residual (RMR) and the standardized root mean square residual (SRMR) can be calculated as the square root of the difference between the residuals of the sample covariance matrix and the hypothesized covariance model (Hooper et al., 2008). Cole (1987) indicates levels below .10 as an indicator of good model fit. Later, Hu and Bentler (1999) identified a level of .08 as acceptable for RMR and SRMR.

RMSEA

Root mean squared error of approximation (RMSEA), like the SRMR and RMR, is based on analysis of residuals (Kelloway, 1998, p. 27; Kline, 2005, p. 138). RMSEA tries to correct the tendency of chi-square to reject models with a large sample or a large number of observed variables (Hair et al., 2010, p. 667). According to Browne and Cudeck (1993), an RMSEA of less than .08 indicates a good fit. Hu and Bentler (1999), on the other hand, came to the conclusion that in order to have a relatively good fit between the hypothesized model and observed data, the RMSEA should be less than .06.

3.3. Development and Analysis of the Pilot Model

3.3.1. Introduction

The pilot model of the short Finnish FFM inventory was developed on the basis of the definition of FFM presented in Sub-chapter 2.3.2. The initial inventory item pool was mainly based on Goldberg's (1999) English IPIP model. The item pool for the pilot test model consisted of 53 items for mapping the five factors. Extraversion, agreeableness, and openness to experience scales included ten items per scale, while emotional stability consisted of 11 items, and conscientiousness included 12 items. The selection of the initial item pool items was based on the construct definition and intuitive reasoning of what items to include. The scale items were measured using a 5-point Likert scale going from 1 (Strongly disagree) to 5 (Strongly agree).

After the generation of the initial item pool, the pool items were administered to a student population. The objective was to obtain statistical information that could help in the development of the pilot and final model. An important objective of the administration of the items was to acquire feedback on question wording. The respondents were asked to mark and comment on any unclear or difficult to understand questions. Other general comments on the questionnaire were also sought.

3.3.2. Method and Sample

Questionnaire design was used in the administration of the initial item pool items. The questionnaires were administered in the autumn of 2007. The target population consisted of students from the course "TETA-1100: Basics of industrial management." This course is mandatory for all students at the Tampere University of Technology; therefore, the respondents represent many different fields and the population is as diverse as possible in this university context. A student population was selected for the pilot model mainly on the basis of convenience.

The respondents were first explained the importance of giving honest and complete responses to the questionnaire. They were given a paper with the inventory items and another paper for filling the responses. Altogether, 125 responses were obtained. Of the respondents, 34 were women and 91 were men. Over 81 percent of the respondents were from 20 to 29 years old. Another 16 percent were from 18 to 19

years old. This was to be expected from a Finnish university student population. However, 3 percent of the respondents were over 30 years of age.

Data screening relied mainly on a control question. At the end of the questionnaire, there was a question "I answered truthfully to this questionnaire." Respondents who selected "Strongly disagree" or "Disagree" were screened out from the data set. Responses were also checked for hasty or incomplete answers. If the respondent had left even a single question unanswered, the whole response was screened out. After the screening, 119 usable responses remained for the use of analysis.

3.3.3. From the Item Pool to Pilot Model

The item pool data was used to develop the pilot model. Statistical analysis with SAS 9.1. software was used in the development process. Principal component analysis and CFA were conducted. Coefficient alphas, communalities, fit indices, and correlations were estimated and calculated. Based on these analyses and estimates, one or more items were eliminated from the initial item pool. After each deletion, iteration rounds of the analysis were conducted, and the results were compared with the results of the original model. If the model was not improved, the item or items were reinstated to the model. Occasionally, item elimination would have statistically improved the model, but at the same time, the content validity would have been compromised. In these cases, the elimination of the item was cancelled. The process was repeated several times in order to obtain an optimal model. Finally, the original item pool of 53 was reduced to 45 items that were organized to form the pilot model. The pilot model consisted of nine items to map each of the five personality factors of extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. The following sub-chapter describes the pilot model in more detail.

3.3.4. Analysis of the Pilot Model

In the following section, the statistical properties of the finalized pilot model are presented. The presented analysis of the pilot model is limited to principal component and confirmatory factor analysis. The purpose of the following description is also to provide goodness-of-fit indices that can be used as a reference when comparing with the next model that is developed.

Principal Component Analysis

First, the principal component analysis is conducted for the individual factors or scales. Next, the confirmatory factor analysis results are presented. The goodness-of-fit indices are listed at the end.

As can be seen from Table 4, the extraversion scale has three internal components or factors. Items Ex01, Ex02, Ex04, Ex05, and Ex06 load strongly on Factor1. All loadings are above .50. Item Ex02 also has a cross loading on Factor2. Other loadings on Factor2 are Ex07, Ex08, and Ex09. Only item Ex03 ("I don't want to draw too much attention to myself") loads strongly on Factor3. All items load significantly on at least one of the factors. Item communality estimates are reasonably high, all above .50, except Ex05 ("I don't get nervous before giving a toast"), with a communality estimate of .42.

Table 4. Principal Component Analysis of Pilot Model Extraversion Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern				
Item	Factor1	Factor2	Factor3	Communality
Ex01	**.74**	.22	.20	.64
Ex02	**.59**	**.46**	-.22	.61
Ex03	.09	.06	**.96**	.92
Ex04	**.79**	.09	-.06	.63
Ex05	**.62**	.19	.02	.42
Ex06	**.74**	.01	.21	.59
Ex07	.34	**.73**	.15	.66
Ex08	-.05	**.81**	-.11	.66
Ex09	.26	**.82**	.16	.78
Variance Explained	2.65	2.18	1.11	

Table 5 shows the principal component analysis of the agreeableness scale. The internal factor structure shows three quite equally strong components. Items Ag04, Ag06, and Ag08 load strongly on Factor1. Items Ag03, Ag07, and Ag09 load on Factor2. Items Ag01, Ag02, and Ag05 load on Factor3. All the component loadings are strong; the weakest loading is .68. No cross loadings appear on the factor structure. All communality estimates are above .50 and they range from .54 to .79. Item Ag08 ("I like to do things where I can be with other people") has the lowest communality, while item Ag04 has the highest communality.

Table 5. Principal Component Analysis of Pilot Model Agreeableness Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern				
Item	Factor1	Factor2	Factor3	Communality
Ag01	.24	.09	**.77**	.65
Ag02	.18	.09	**.81**	.70
Ag03	-.08	**.81**	.03	.66
Ag04	**.89**	.03	.03	.79
Ag05	-.12	-.04	**.74**	.56
Ag06	**.80**	.17	.00	.66
Ag07	.17	**.81**	.12	.70
Ag08	**.68**	.12	.25	.54
Ag09	.17	**.74**	-.02	.58
Variance Explained	2.05	1.93	1.88	

The conscientiousness scale is formed from two internal components (Table 6). Items Co01, Co04, Co05, Co06, and Co09 load strongly on Factor1, while the remaining items Co02, Co03, Co07, and Co08 load on Factor2. No cross loadings exist. Communality estimates of items Co01 ("I finish my work on time") and Co07 ("I obey the rules the best I can") are quite low, at .28 and .33, respectively. These low communality estimates may indicate bad wordings or otherwise poor scale items. The other communality estimates range from .49 to .74. The average communality is .51.

Table 6. Principal Component Analysis of Pilot Model Conscientiousness Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern			
Item	Factor1	Factor2	Communality
Co01	**.51**	.12	.28
Co02	.03	**.82**	.67
Co03	.07	**.85**	.74
Co04	**.68**	.19	.50
Co05	**.76**	.24	.63
Co06	**.71**	.06	.51
Co07	.29	**.49**	.33
Co08	.20	**.67**	.50
Co09	**.70**	.04	.49
Variance Explained	2.43	2.21	

The emotional stability scale consists of three components or factors (Table 7). Items Em01, Em03, Em05, and Em06 load strongly on Factor1. Items Em07, Em08, and Em09 load on Factor2. The loadings on Factor2 range from .66 to .84. Factor3 has three items loading strongly on it. Items Em02 and Em04 both have a loading of .84 on Factor3 and item Em05 has a loading of .45. The item Em05 is the only item having cross loadings. It loads both on Factor1 and Factor3. Communality estimates range from .42 to.77, Em02 ("I don't get agitated easily") having the highest communality estimate. The average communality is relatively high, the arithmetic mean of the communalities is .62.

Table 7. Principal Component Analysis of Pilot Model Emotional Stability Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern				
Item	Factor1	Factor2	Factor3	Communality
Em01	**.66**	.10	-.20	.48
Em02	-.07	.25	**.84**	.77
Em03	**.59**	.15	.24	.42
Em04	.17	.06	**.84**	.74
Em05	**.58**	.18	**.45**	.58
Em06	**.81**	.15	.07	.68
Em07	.20	**.84**	.00	.74
Em08	.30	**.66**	.19	.56
Em09	.03	**.78**	.20	.64
Variance Explained	1.93	1.89	1.80	

Table 8 shows the components of the openness to experience scale. Three components were retained. Items Op02, Op04, Op07, and Op09 load on Factor1. Op04 also has a loading on Factor2. Other items loading on Factor2 are Op01, Op03, and Op05. Factor3 has only two loadings, Op06 and Op08, both having a relatively strong load of .76. Communality estimates range from .46 and .72. The lowest communality estimate is for Op04 ("I see beauty in things that others might not notice"). The average communality is almost as high as the emotional stability, being .61. It is noteworthy that items Op1, Op2, and Op3 all have negative loadings on Factor3. All the loading are still below the .40 level, but the item Op1 is very close having a value of negative .39.

Table 8. Principal Component Analysis of Pilot Model Openness to Experience Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern				
Item	Factor1	Factor2	Factor3	Communality
Op01	.39	**.41**	-.39	.47
Op02	**.62**	.36	-.27	.59
Op03	.32	**.67**	-.28	.63
Op04	**.42**	**.51**	.16	.46
Op05	-.06	**.82**	.06	.68
Op06	.11	-.27	**.76**	.66
Op07	**.78**	.04	.07	.62
Op08	.02	.23	**.76**	.63
Op09	**.83**	.06	.10	.72
Variance Explained	2.14	1.82	1.51	

Structural Analysis of the Pilot Model

Table 9 shows the varimax rotated factor loadings of the pilot model. As is evident in the table, the factor structure is not as clear as it could be. Some cross loadings exist, but the main concern is the loadings on wrong factors. Many items load strongly on the wrong factors (Ex01, Ex04, Ex06, Ag01, Ag02, Ag04, Ag06, Ag08, Em01, Em02, Em04, and Op08). Agreeableness factor seems to be the least clear. Only three of the agreeableness items (Ag03, Ag07, and Ag09) load on that factor, while five (Ag01, Ag02, Ag04, Ag06, and Ag08) items load significantly on the extraversion factor. None of the agreeableness items have cross loadings on the factors. Extraversion factor has five intended items (Ex01, Ex02, Ex07, Ex08, and Ex09) strongly loading on it. Three of the extraversion items (Ex01, Ex04, and Ex06) load on the emotional stability factor. Ex01 loads on both the extraversion and the emotional stability factors. The only factor with a clear factor structure is the conscientiousness factor. All the conscientiousness items (Co01-Co09) load strongly on the conscientiousness factor. None of the conscientiousness items has any significant cross loadings on the other factors. None of the other items (besides the conscientiousness items) load on the conscientiousness factor. Emotional stability factor has five items loading strongly on it (Em05-Em09). Em01, Em02, and Em04 load on wrong factors. Openness to experience factor is almost as clear as the conscientiousness factor. Only one item (Op08) is loading on a wrong factor and one item (Op06) that does not load strongly on any of the factors. None of the other (outside openness to experience items) items load on the openness to experience factor.

Table 9. Varimax Rotated Factor Loadings and Alphas of the Pilot Model

	Factor					
Facet and item	E	A	C	ES	O	Alpha
Extraversion (E)						.79
Ex01	**.45**	-.18	-.11	**.52**	.04	
Ex02	**.53**	-.02	.17	.36	-.11	
Ex03	.19	-.09	-.15	.06	-.09	
Ex04	.19	-.12	-.01	**.72**	-.05	
Ex05	.33	-.11	-.11	.37	-.21	
Ex06	.22	-.14	.12	**.47**	-.11	
Ex07	**.65**	-.20	.11	.18	.01	
Ex08	**.58**	.24	.03	.04	.20	
Ex09	**.79**	.00	.03	.04	.20	
Agreeableness (A)						.70
Ag01	**.50**	-.04	.01	.03	.32	
Ag02	**.46**	-.08	-.01	-.07	-21	
Ag03	.00	**.42**	.03	-.24	.25	
Ag04	**.53**	.18	-.14	-.05	-.06	
Ag05	.20	-.08	-.35	-.03	.03	
Ag06	**.45**	.33	-.14	-.03	.15	
Ag07	.15	**.60**	-.11	-.11	.13	
Ag08	**.75**	.18	-.01	-.12	-.03	
Ag09	.04	**.51**	.10	.06	.27	
Conscientiousness (C)						.76
Co01	-.07	.11	**.40**	.01	-.34	
Co02	.12	-.11	**.44**	-.24	.01	
Co03	.19	-.09	**.47**	-.15	-.06	
Co04	-.04	.00	**.58**	-.03	.02	
Co05	.03	.01	**.73**	.18	-.03	
Co06	-.01	.00	**.56**	-.06	.05	
Co07	.14	.19	**.43**	-.32	-.02	
Co08	.19	.03	**.46**	-.02	-.11	
Co09	-.08	.15	**.51**	.04	-.09	
Emotional Stability (ES)						.76
Em01	**.49**	-.19	.06	.36	-.12	
Em02	-.05	**.60**	.05	.06	-.12	
Em03	.21	.34	.18	.31	.01	
Em04	.03	**.50**	.15	.13	-.12	
Em05	.23	.38	.12	**.40**	-.14	
Em06	.32	.05	.05	**.57**	.03	
Em07	-.09	.21	.04	**.57**	-.39	
Em08	-.03	.33	-.05	**.58**	-.22	
Em09	-.02	.28	.01	**.46**	-.21	
Openness to Experience (O)						.64
Op01	.05	-.10	-.12	-.39	**.51**	
Op02	.01	.08	.09	-.26	**.59**	
Op03	-.14	.10	-.07	-.22	**.68**	
Op04	.04	-.07	-.11	.03	**.54**	
Op05	.16	-.02	-.08	.10	**.47**	
Op06	.17	-.16	-.06	.25	-.22	
Op07	.13	-.01	.07	.01	**.41**	
Op08	**.48**	.10	.04	.20	.08	
Op09	.11	.09	.00	.01	**.49**	

On the basis of the CFA, the major inventory improvements will be concentrated on extraversion, agreeableness, and emotional stability items. Wordings of the items will be analyzed and possibly changed. Some of the items may be deleted and new items might be introduced in the next phase of the inventory development.

On analyzing the goodness of fit statistics (Table 10), it is noticed that the model is not a good fit. The RMR value of .066 follows the Hu and Bentler (1999) guideline of .08 or less. The RMSEA of .069 fulfils the Browne and Cudeck (1993) guidelines. More importantly the model fails to meet the Hu and Bentler (1999) cutoff limit of .06. The GFI (.67), AGFI (.58), and CFI (.69) all are below the suggested levels and indicate a poor model fit.

Table 10. Goodness of Fit Statistics of the Pilot Model

Statistic	Value
Goodness of Fit Index (GFI)	.67
GFI Adjusted for Degrees of Freedom (AGFI)	.58
Root Mean Square Residual (RMR)	.066
Parsimonious GFI (Mulaik, 1989)	.54
Chi-Square	1735
Chi-Square DF	1113
RMSEA Estimate	.069
RMSEA 90% Lower Confidence Limit	.063
RMSEA 90% Upper Confidence Limit	.075
Bentler's Comparative Fit Index (CFI)	.69
Bentler & Bonett's (1980) Non-normed Index	.61
Bentler & Bonett's (1980) NFI	.48
James, Mulaik, & Brett's (1982) Parsimonious NFI	.39

In addition to principal component analysis and CFA, an item analysis was conducted. "Correlation with total" and "Alpha if item is removed" statistics were calculated for each item. Both these statistics help to identify items that are bad for the internal reliability of a scale. On the basis of the item analysis and the information presented previously in this sub-chapter, the next version of the personality inventory was developed. The conducted statistical analysis helps to identify which factor items to include in the next level model, which to modify, and which to exclude.

3.4. Development of the Final Inventory and Item Analysis

On the basis of the reasoning and analysis reported earlier, the final model was developed. Some of the improvements to the pilot model were able to be tested with statistical analysis conducted with the original item pool data. That was partly because the goal of the development was to further decrease the number of items of the model. However, the pilot data could still not be used to examine the changed wordings or even added items and their effects. Another limitation in the use of the initial item pool data stems from the very nature of that data (it was designed to help the development process, not to validate or test the final model). For example, the number of observations in the initial item pool data is too small for those kinds of analyses. For these reasons, additional, more comprehensive data was gathered. The methods used in this gathering are described next.

3.4.1. Method

Questionnaire design was also used for gathering data to analyze and develop the final inventory. Two different data sources were used in the analysis. The first part of the data was gathered in the autumn of 2008 from a student sample. For the same reasons as for the pilot model, students from the course "TETA-1100: Basics of industrial management" were selected to answer the questionnaire. The second part of the data was collected from Finnish key account managers in the winter of 2008-2009. More specific information about the methods and procedures of that survey research can be found in Sub-chapter 4.4.

3.4.2. Sample

The student sample consisted of 192 students, of which 63 were female (33 percent) and 127 were male (66 percent). As with the pilot model student sample, the majority of the students were close to 20 years of age. Students in the age group of 18 to 20 accounted for 43 percent of the respondents, while those in the 21 to 30 age group constituted 52 percent. The final five percent were over 30 years old. The key account manager sample consisted of 180 respondents, of which 58 were female (33 percent) and 121 were male (67 percent). The average age of the key account managers was 45 years. The key account manager sample is described in detail in Sub-chapter 4.6.

3.4.3. Data Preparation and Screening

After the data was inputted to Microsoft Excel worksheet, the data preparation began with the coding of the results. The questionnaire included 11 negatively worded questions. Scores to these questions were reverse-scored, so that a higher score corresponds to a higher indication of trait factor (e.g., the higher the question score, the more open or emotionally stable is the person).

On four occasions, the respondent made two answer choices despite the instruction to select only one choice. These double scores were replaced by the one of the scores that was closer to the respondent's average score on the other questions concerning the specific factor or measure. In 13 responses, there were incidences of missing data. Most of the cases had only one missing data item. However, in order to keep the reliability of the inventory development as high as possible, all these responses were deleted from the data set. After this deletion, the data set comprised 359 responses.

The key account manager questionnaires included two control question pairs. The idea of the control questions was to ask a similar question in two ways. To improve the effectiveness of the paired control question, the other questions were negatively worded. (e.g., Q1 = "I doubt others of lying," Q2 = "I trust other people's word"). If a respondent answered to either one of the control question in totally opposite ways, the response was deleted from the data set. Altogether, 12 responses were deleted on this basis. After the control question screening, the final data set consisted of 347 responses.

3.4.4. Item Analysis of the Final Model

Next, the item analysis for each scale is described in detail. Item analysis is important aspect of the assessment of reliability of the developed inventory. Results of principal component analysis, intercorrelations, scale item score distributions and scale item statistics for each of the personality factors are presented. The complete list of inventory items is presented in Appendix 1.

Extraversion

Table 11 summarizes the principal component analysis of the extraversion scale. Two components were retained. From Table 11, it can be seen that all items, except

item Extra5, load significantly on Factor1. Extra2, Extra3, Extra5, and Extra6 load significantly on Factor2. Items Extra2, Extra3, and Extra6 have loadings on both factors. Communality estimates are all acceptable. Only Extra8 has a communality estimate under .50 having a value of .43.

Table 11. Principal Component Analysis of Extraversion Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern			
Item	Factor1	Factor2	Communality
Extra1	**.65**	.34	.54
Extra2	**.48**	**.51**	.50
Extra3	**.40**	**.71**	.68
Extra4	**.74**	.16	.58
Extra5	-.27	**.74**	.62
Extra6	**.46**	**.54**	.51
Extra7	**.69**	.21	.52
Extra8	**.64**	-.13	.43
Variance Explained	2.54	1.82	

The intercorrelations, shown in Table 12, raise some doubts about item Extra5. Other correlations are quite high, but when item Extra5 is correlated with other items, the correlation coefficients stay quite low. Extra5 also has some moderate correlations: for example, with Extra3, its correlation is .27. The intercorrelations range from .04 to .48.

Figure 13 illustrates the distribution of answers on the extraversion scale items. The first answer choice is seldom used. All items except Extra2 have a median of 4.0 (Extra2 has a median of 2.0). Extra2 is the only item that shows a large number of first answer choices. Item Extra4 was reverse coded; the figure shows transformed scores. The figure provides evidence that the reverse coded items are understood correctly by the respondents, since the distribution of answers to item Extra4 resemble items that are non reverse coded (all the other items). All items except Extra2 are negatively skewed.

Table 13 demonstrates the statistics on the extraversion scale. Item Extra2 has the lowest average score (2.56), while item Extra3 has the highest average score (3.90). Item Extra2 also has the highest standard deviation. Item Extra5 stands out when the correlations with the totals are compared. It seems that the item in question is not strongly correlated with the other items.

Table 12. Intercorrelations among Extraversion Scale Items

Correlations								
	Extra1	Extra2	Extra3	Extra4	Extra5	Extra6	Extra7	Extra8
Extra1	1.00							
Extra2	.40	1.00						
Extra3	.43	.48	1.00					
Extra4	.48	.37	.38	1.00				
Extra5	.08	.09	.27	.00	1.00			
Extra6	.40	.45	.48	.39	.11	1.00		
Extra7	.45	.34	.43	.40	.04	.32	1.00	
Extra8	.25	.18	.15	.35	.04	.16	.33	1.00

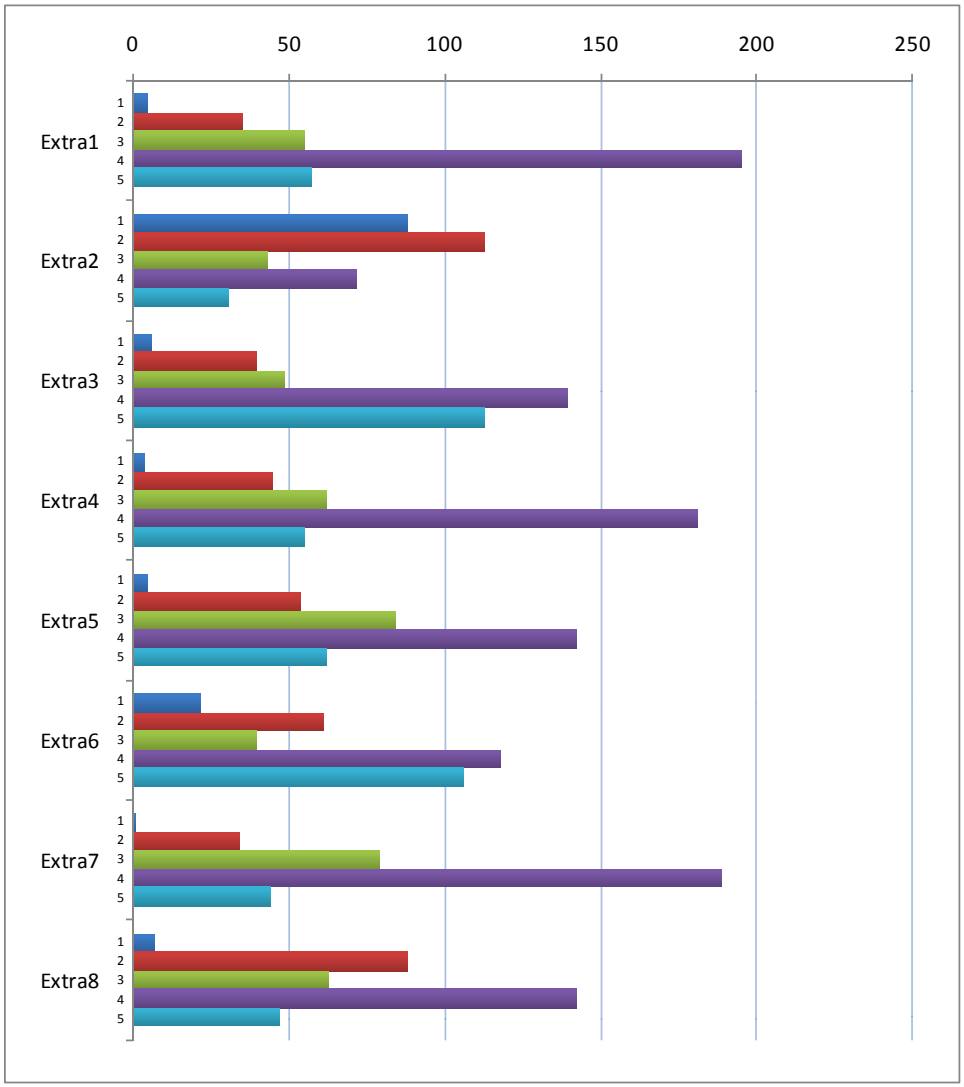


Figure 13. Extraversion Scale Item Distributions

Table 13. Extraversion Scale Item Statistics

Scale Item Statistics (N = 347, Scale coefficient alpha = .76)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
Extra1	3.76	.90	.57	.72
Extra2	2.56	1.31	.53	.72
Extra3	3.90	1.04	.62	.71
Extra4	3.68	.93	.54	.73
Extra5	3.58	1.00	.14	.79
Extra6	3.65	1.26	.54	.72
Extra7	3.69	.83	.53	.73
Extra8	3.39	1.07	.31	.76

The "Alpha if item is removed" statistic also suggests that item Extra5 ("I enjoy being with others more than being alone") should be considered as a candidate for removal from the scale. The coefficient alpha for the scale is .76, and by eliminating Extra5, it would raise .03 to .79. However, when the content validity and the fact that the alpha was already quite high were taken into account, item Extra5 was kept in the scale.

Agreeableness

The agreeableness scale consisted of three internal components, as can be observed in Table 14.

Table 14. Principal Component Analysis of Agreeableness Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern				
Item	Factor1	Factor2	Factor3	Communality
Agree1	**.71**	.21	-.09	.59
Agree2	.00	.10	**.81**	.66
Agree3	.05	**.82**	.17	.71
Agree4	**.83**	.16	.02	.72
Agree5	.12	**.82**	.07	.69
Agree6	**.63**	-.12	.14	.43
Agree7	.17	.11	**.71**	.55
Agree8	**.77**	.09	.25	.66
Variance Explained	2.24	1.46	1.29	

Items Agree1, Agree4, Agree6, and Agree8 load significantly on Factor1. Factor2 and Factor3 have two strong loadings each. Items Agree3 and Agree5 load on Factor2, and items Agree2 and Agree7 load on Factor3. The loadings are all high, ranging from .63 to .83. The internal component structure shows no significant cross loadings. The communalities are also high. The average communality is .63. Item Agree6 ("I often suspect others of lying") has the lowest communality estimate (.43).

The agreeableness scale intercorrelations that are shown in Table 15 range from .00 to .58. Item Agree2 has the lowest average intercorrelations, while item Agree8 has the highest average intercorrelations. The highest individual correlation is between Agree4 and Agree8 (.58). The lowest correlation was between Agree3 and Agree4 (.00).

Table 15. Intercorrelations among Agreeableness Scale Items

Agreeableness								
	Agree1	Agree2	Agree3	Agree4	Agree5	Agree6	Agree7	Agree8
Agree1	1.00							
Agree2	.02	1.00						
Agree3	.17	.18	1.00					
Agree4	.52	.10	.00	1.00				
Agree5	.15	.15	.43	.20	1.00			
Agree6	.22	.08	.06	.38	.08	1.00		
Agree7	.16	.24	.21	.13	.14	.10	1.00	
Agree8	.41	.17	.13	.58	.21	.36	.27	1.00

The agreeableness scale item distributions are illustrated in Figure 14. It can be observed that the mode for all items is 4[27]. All the agreeableness items are negatively skewed. The median of all items except Agree3 is 4.0. Agree3 has a median of 3.0. Agree3 is the most evenly distributed item. Items Agree1, Agree4, and Agree7 are the most unevenly distributed.

Table 16 presents the agreeableness scale item statistics. Item Agree7 has the highest average score (4.04), while item Agree3 has the lowest average score (3.16). Standard deviations range from .72 to 1.08. The lowest deviations come from items with a high average score. This can be partly explained by the range limitations of item scores. When the maximum is five, the items with an average over 4.0 have less room to vary than an item with an average of three.

[27] It means that the answer choice most frequently used is 4.

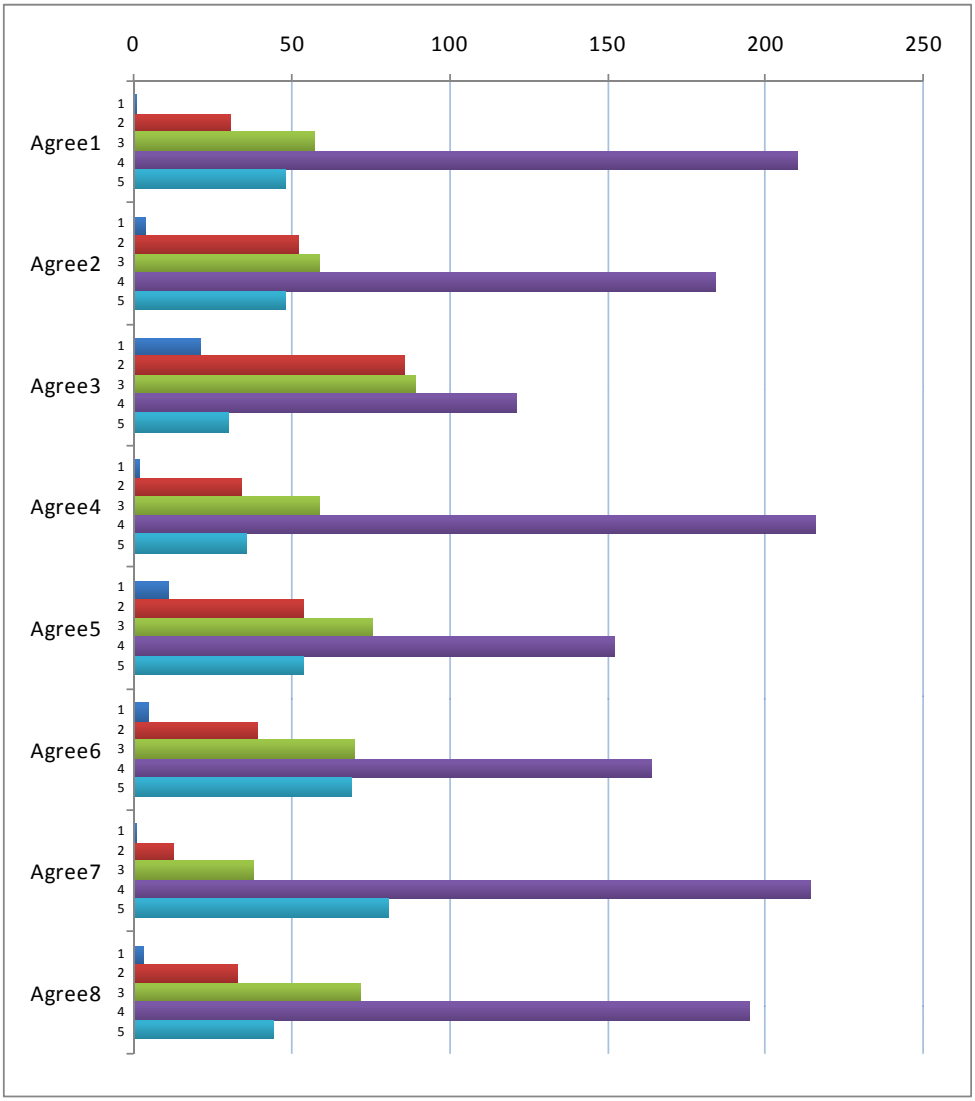


Figure 14. Agreeableness Scale Item Distributions

Item Agree2 ("I am not interested in other people's problems") seems to be the most likely candidate for elimination from the scale. Item Agree2 has the lowest correlation with the total and has the only positive effect on the "alpha if item is removed". Item Agree2 is also a reverse coded item, so it could explain the lowest statistics. On the other hand, item Agree2 has a rather strong communality estimate and contributes highly to the content validity of the scale. Moreover, it is important to have sufficient reverse coded items to increase the reliability by countering the possibly existing answering biases. Items Agree4 ("I trust what people say") and Agree8 ("I believe that people usually have good intentions") seem to be the strongest contributors to the scale reliability.

Table 16. Agreeableness Scale Item Statistics

Scale Item Statistics (N = 347, Scale coefficient alpha = .67)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
Agree1	3.79	.80	.40	.64
Agree2	3.63	.94	.23	.68
Agree3	3.16	1.08	.34	.65
Agree4	3.72	.80	.52	.61
Agree5	3.53	1.03	.35	.65
Agree6	3.73	.95	.30	.66
Agree7	4.04	.72	.31	.66
Agree8	3.71	.84	.53	.60

Conscientiousness

Table 17 reveals the results of the principal component analysis of the conscientiousness scale factor. Three components can be retained. Four items (Consc3, Consc5, Consc6, and Consc8) loaded on Factor1. Loadings ranged from .53 to .82. Factor2 had three loadings. Items Consc2, Consc4, and Consc9 loaded on that factor. Factor3 had only two items loading on it (Consc1 and Consc7). No significant cross loadings were found. Communality estimates range from .46 to .75, having an average of .62. Item Consc9 ("I obey the rules the best I can") has the lowest communality estimate.

Table 17. Principal Component Analysis of Conscientiousness Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern				
Item	Factor1	Factor2	Factor3	Communality
Consc1	.15	.10	**.84**	.75
Consc2	.21	**.71**	.16	.57
Consc3	**.82**	-.06	-.03	.68
Consc4	.07	**.78**	-.04	.62
Consc5	**.53**	.35	.25	.47
Consc6	**.79**	.07	.11	.63
Consc7	.07	.10	**.85**	.74
Consc8	**.72**	.27	.14	.62
Consc9	.03	**.67**	.12	.46
Variance Explained	2.16	1.78	1.58	

Table 18 shows the intercorrelations among the conscientiousness scale items. No significant differences can be identified with the intercorrelations when individual items are studied. Item Consc8 ("I am deliberate in my decisions") has the highest average intercorrelations (ranging from .16 to .48), while item Consc4 ("I finish my work on time") has the lowest average intercorrelations (ranging from .05 to .40). The highest individual intercorrelation is between items Consc1 and Consc7, having a value of .51.

Table 18. Intercorrelations among the Conscientiousness Scale Items

Conscientiousness									
	Consc1	Consc2	Consc3	Consc4	Consc5	Consc6	Consc7	Consc8	Consc9
Consc1	1.00								
Consc2	.23	1.00							
Consc3	.11	.15	1.00						
Consc4	.09	.40	.05	1.00					
Consc5	.29	.32	.32	.26	1.00				
Consc6	.21	.22	.49	.17	.29	1.00			
Consc7	.51	.21	.08	.11	.22	.18	1.00		
Consc8	.25	.29	.40	.18	.46	.48	.16	1.00	
Consc9	.17	.31	.06	.28	.17	.09	.15	.27	1.00

Figure 15 shows the distribution of the conscientiousness items. All the items have a median of 4.0. Similarly, all the items are negatively skewed. The item Consc9 has the largest skew, while item Consc3 has the smallest skew. Items Consc6 and Consc7 were reverse coded, which might explain the more frequent score 1 for the Consc7 item. This raises a suspicion about acquiescence tendencies concerning the responding. The more likely explanation for the higher than normal frequency of low scores comes from the nature of the Consc7 item ("A mess in my apartment doesn't bother me"). It would very probable that some respondents feel that a mess in an apartment is not something that would bother them.

Table 19 shows the conscientiousness scale item statistics. Item average scores range from 3.53 to 4.09. Item Consc9 has the highest average score, while item Consc5 has the lowest average score. Standard deviations range from .84 to 1.19. Item Consc7 ("A mess in my apartment doesn't bother me") with the standard deviation of 1.19 raises some suspicion. One reason for such high standard deviation might be the negative wording of the item. It could be that some respondents misunderstand the negative wording and gave an answer contrasting to their intention.

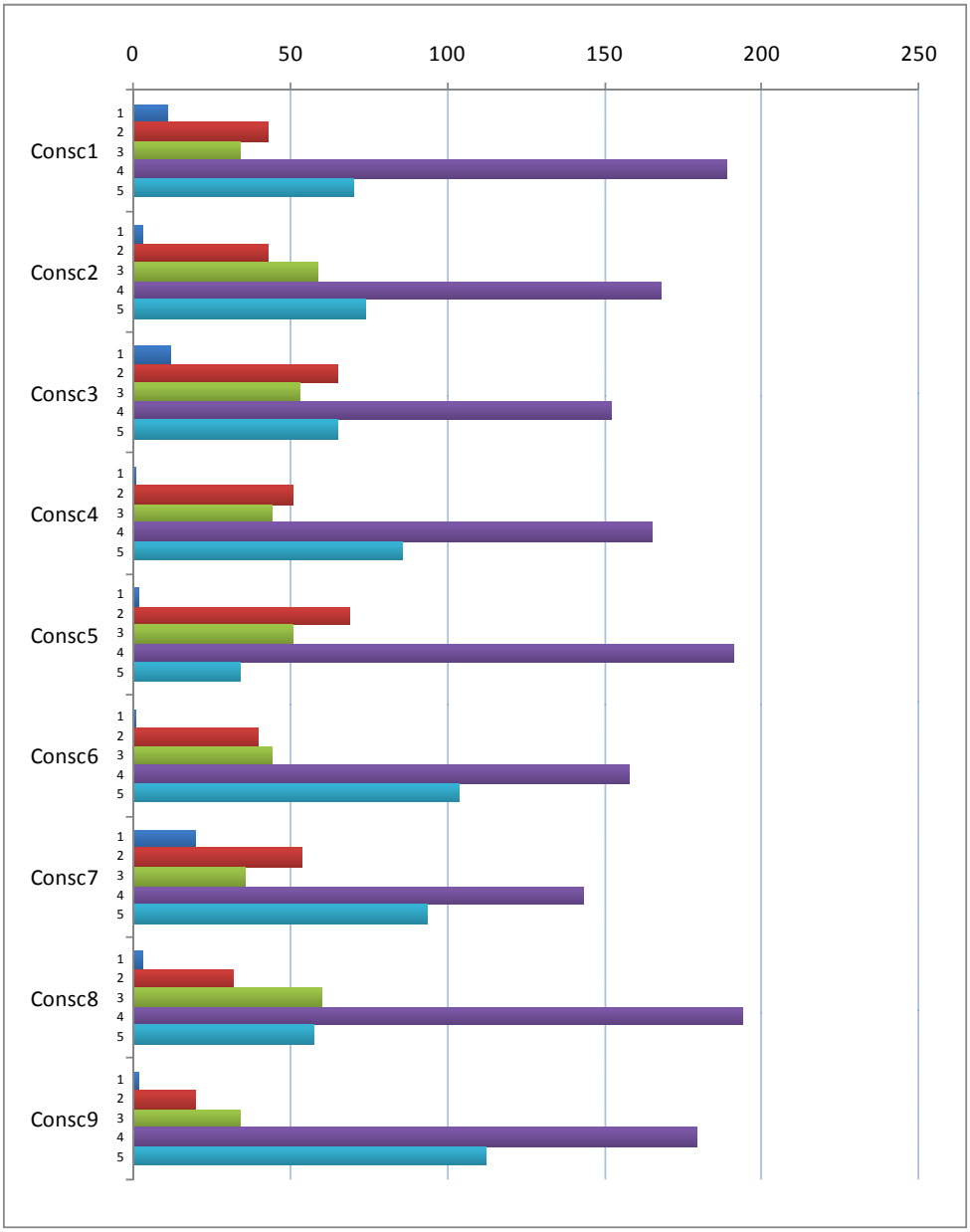


Figure 15. Conscientiousness Scale Item Distributions

Correlations with total statistics (Table 19) range from .31 to .55. These levels and the "alpha if the item is removed" statistics both provide evidence that all the items contribute to the reliability of the scale. The removal of any one of the conscientiousness items would not improve the coefficient alpha statistic. Items Consc5 and Consc9 seem to be the most important items when the internal reliability is concerned.

Table 19. Conscientiousness Scale Item Statistics

Scale Item Statistics (N = 347, Scale coefficient alpha = .72)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
Consc1	3.76	1.01	.41	.71
Consc2	3.77	.95	.46	.70
Consc3	3.55	1.10	.35	.72
Consc4	3.82	.98	.31	.72
Consc5	3.53	.94	.51	.69
Consc6	3.93	.96	.47	.70
Consc7	3.68	1.19	.35	.72
Consc8	3.78	.86	.55	.69
Consc9	4.09	.84	.31	.72

Emotional Stability

Table 20 shows the internal component structure of the emotional stability scale. Two components are retained. Factor1 is the stronger of the two, with six items (Emot1, Emot3, Emot4, Emot5, Emot6, and Emot7) loading on to it. Emot7 also has a cross loading on Factor2. Items Emot2 and Emot8 are the other two loadings on Factor2. Communality estimates range from .35 to .74. One reason for low communality estimates is the two component structure of the scale[28].

Table 20. Principal Component Analysis Emotional Stability Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern			
Item	Factor1	Factor2	Communality
Emot1	**.64**	.01	.40
Emot2	.00	**.86**	.74
Emot3	**.54**	.24	.35
Emot4	**.71**	.22	.56
Emot5	**.77**	-.01	.59
Emot6	**.66**	.21	.49
Emot7	**.45**	**.54**	.50
Emot8	.17	**.84**	.73
Variance Explained	2.46	1.89	

[28] For example, compared to three component structures of some of the other scales.

Table 21 presents the intercorrelations between the emotional stability items. The intercorrelations range from .03 to .54. The highest intercorrelation is between Items Emot2 and Emot8. Item Emot4 ("It is easy to hurt me emotionally") has the highest average intercorrelations, while Emot2 ("I seldom get angry") has the lowest average intercorrelations.

Table 21. Intercorrelations among Emotional Stability Scale Items

Emotional Stability								
	Emot1	Emot2	Emot3	Emot4	Emot5	Emot6	Emot7	Emot8
Emot1	1.00							
Emot2	.07	1.00						
Emot3	.25	.20	1.00					
Emot4	.29	.23	.40	1.00				
Emot5	.31	.03	.26	.48	1.00			
Emot6	.29	.18	.29	.42	.38	1.00		
Emot7	.30	.33	.22	.29	.35	.38	1.00	
Emot8	.14	.54	.25	.29	.18	.24	.45	1.00

Figure 16 describes the distribution of the emotional stability items. Items Emot3, Emot4, Emot5, and Emot6 were reverse coded. Items Emot3, Emot4, and Emot5 have a median of 3.0. The rest of the items (Emot1, Emot2, Emot6, and Emot7) have a median of 4.0. All items are negatively skewed. Item Emot1 has the highest skew, while Emot3 has the lowest skew. It is interesting to notice that the answers tend to be high or low, leaving the middle choice seldom used (e.g., items Emot2, Emot3, Emot4, Emot5, and Emot6). The tendency to leave the middle choice out is strongest with the emotional stability scale. This tendency contributes to negative kurtosis, which is very strong with the previously mentioned items. With many items, the distributions are far from normal distribution.

Table 22 presents the emotional stability scale item statistics. The average scores have a slightly higher range than the conscientiousness items; however, the range is still the second lowest of the five scales. The averages range from 3.14 to 3.83. Standard deviations are higher than average. One reason for this could be the reverse scored items of the scale. Items Emot3, Emot4, Emot5, and Emot6 are reverse scored. The standard deviations of these items range from 1.11 to 1.28.

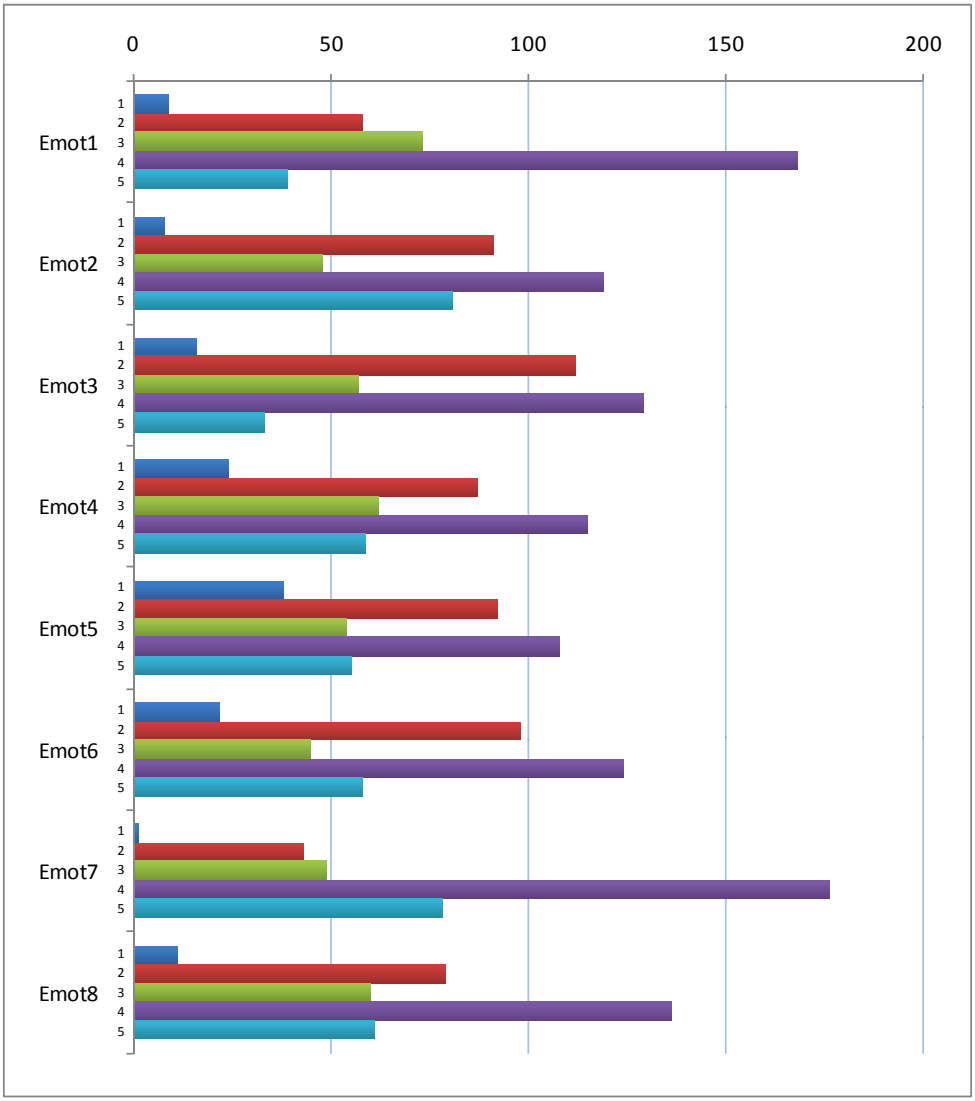


Figure 16. Emotional Stability Scale Item Distributions

The correlation with total statistics ranges from .35 to .57. The two lowest correlations belong to Emot1 ("I feel that I can handle any situation") and Emot2 ("I seldom get angry"). The "alpha if item is removed" statistics also suggest that these two items are the weakest links of this scale with regard to the internal reliability. The improvements in the coefficient alpha with the hypothetical removal of items Emot1 and Emot2 are relatively small. Moreover, the content validity and the communality estimates (presented in Table 20) being considered, it is decided that the items remain part of the scale.

Table 22. Emotional Stability Scale Item Statistics

Scale Item Statistics (N = 347, Scale coefficient alpha = .73)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
Emot1	3.49	.98	.37	.75
Emot2	3.50	1.18	.35	.76
Emot3	3.14	1.11	.43	.74
Emot4	3.28	1.21	.57	.71
Emot5	3.15	1.28	.45	.74
Emot6	3.28	1.22	.50	.73
Emot7	3.83	.93	.54	.73
Emot8	3.46	1.12	.47	.73

Openness to Experience

Table 23 shows the component structure of the openness to experience scale. Three components are retained. Items Openn2, Openn4, Openn5, and Openn7 load significantly on Factor1. The loadings range from .56 to .80. Item Openn7 has a cross loading on Factor2. Factor2 has three items loading on it; the other two items are Openn3 and Openn6. Factor3 only has one item (Openn1) loading on to it. As a result, the elimination of Openn1 ("I like to try out new things") should be considered. Communality estimates are good, ranging from .57 to .86.

Table 23. Principal Component Analysis of Openness to Experience Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern				
Item	Factor1	Factor2	Factor3	Communality
Openn1	.08	.11	**.92**	.86
Openn2	**.77**	.09	.21	.65
Openn3	.02	**.83**	.15	.71
Openn4	**.70**	.17	-.30	.61
Openn5	**.80**	.03	.18	.67
Openn6	.16	**.79**	.01	.65
Openn7	**.56**	**.48**	-.15	.57
Variance Explained	2.08	1.59	1.06	

Table 24 describes the intercorrelation between the openness to experience scale items. The intercorrelations range from .03 to .52. The highest intercorrelation is between Openn2 and Openn5. Item Openn1 ("I like to try out new things") has the lowest average intercorrelation. The highest average intercorrelation is with item Openn7 ("I see beauty in things that others might not notice").

Table 24. Intercorrelations among Openness to Experience Scale Items

Openness							
	Openn1	Openn2	Openn3	Openn4	Openn5	Openn6	Openn7
Openn1	1.00						
Openn2	.14	1.00					
Openn3	.16	.18	1.00				
Openn4	.03	.36	.11	1.00			
Openn5	.12	.52	.12	.36	1.00		
Openn6	.10	.21	.42	.21	.21	1.00	
Openn7	.06	.34	.30	.42	.34	.33	1.00

Figure 17 explains the distribution of the openness to experience items. Items Openn1, Openn3, Openn6, and Openn7 are negatively skewed. Items Openn2 and Openn4 have almost neutral skewness. Item Openn5 has a positive skew and a median of 2.0. Items Openn2 and Openn4 have a median of 3.0. Items Openn1, Openn3, Openn6, and Openn7 have a median of 4.0.

Table 25 shows the openness scale item statistics. The openness to experience scale has the widest range of average item scores of the inventory. The average scores range from 2.19 to 4.09. Item Openn5 ("I greatly appreciate poetry") has the lowest average score. One reason for the low average score might be the wording of the item. The item uses the wording "I greatly appreciate…" which might be hard for the respondents to agree with.

The correlation with the total statistic (Table 25) reveals that Openn1 ("I like to try out new things") has a very low correlation with the total. The "alpha if item is removed" statistic also suggests that Openn1 might not be suitable for this scale. The item is neither reverse coded nor does it include negative wording. Table 23 also indicates that the item stands alone in the internal component structure. On the other hand, the item is essentially at the core of the construct of openness to experience. This link to content validity is so important that the statistical concerns can be disregarded, and the item kept in the inventory.

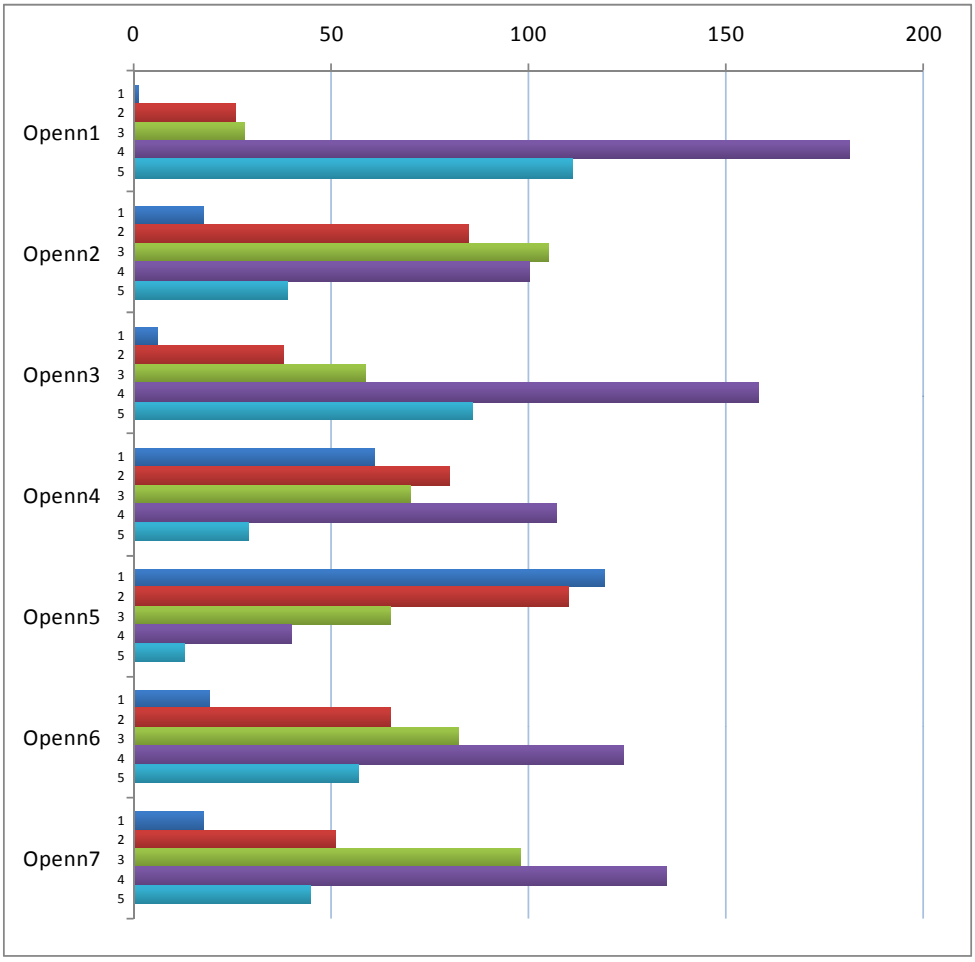


Figure 17. Openness to Experience Scale Item Distributions

Table 25. Openness to Experience Scale Item Statistics

Scale Item Statistics (N = 347, Scale coefficient alpha = .68)

Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
Openn1	4.09	.84	.14	.72
Openn2	3.17	1.08	.50	.63
Openn3	3.81	.99	.35	.67
Openn4	2.90	1.25	.41	.66
Openn5	2.19	1.14	.48	.64
Openn6	3.39	1.13	.41	.66
Openn7	3.39	1.05	.52	.63

3.4.5. Factorial Model of the Final Scale

The structural analysis of the final model is presented in Table 26. As can be observed from the table, the extraversion factor is very clear. Only item Extra5 does not load significantly on the extraversion factor. This item is retained on the basis of its content validity. All other items load strongly on the extraversion factor and no cross loadings are present. When compared to the pilot model factor structure (Table 9), the improvement can be clearly seen. The pilot model had loadings on the wrong factors as well as some cross loadings. The coefficient alpha for the final model extraversion factor is .76, which is slightly lower than the alpha for the pilot model. The difference can be attributed partly to the smaller number of items in the final model. The final model coefficient alpha is still well above the guidelines.

The final model agreeableness factor is not as clear as the extraversion factor. While the item loadings are appropriately focused on the correct factor, the loadings themselves are not as strong as they should ideally be. Items Agree1, Agree4, Agree6, and Agree8 had loadings over .40. The remaining items show loadings ranging from .22 to .33 on the correct factor. As mentioned earlier, the factor structure is clear in the sense that no cross loadings exist. The improvement of the pilot model is evident. The pilot model had strong loadings on the extraversion factor, and the number of items loading on the agreeableness factor was low. As in the case of extraversion, the final model coefficient alpha (.67) is slightly lower than the pilot model coefficient alpha (.70). The .67 alpha value of the factor is lower than Nunnally's (1978, p. 245) guideline of .70. However, it is well in line with the FFM short form alphas of previous researches (McCrae and Costa, 2004).

The conscientiousness factor is also very clear (Table 26). The factor items load mainly on the correct factor. The loadings of Consc1, Consc2, Consc3, Consc5, Consc6, and Consc8 are all above .40. The remaining items have loadings in the .30 and .40 range. No significant cross loadings exist. When compared to the pilot model (Table 9), the conscientiousness factor does not show improvement. The reason is that the pilot model conscientiousness factor was extremely clear, and not much room for improvement existed. The coefficient alpha value is slightly lower for the final model. However, the .72 value is still above the guidelines.

Table 26. Varimax Rotated Factor Loadings and Alphas of the Final Model without Modifications

	Factor					Alpha
Facet and item	E	A	C	ES	O	(stand.)
Extraversion (E)						.76 (.76)
Extra1	**.62**	.08	.07	-.09	.11	
Extra2	**.63**	.04	-.05	.11	.07	
Extra3	**.66**	.15	.03	-.10	.11	
Extra4	**.61**	-.02	.15	-.03	-.02	
Extra5	.15	.18	-.05	-.09	-.08	
Extra6	**.68**	.05	.06	.09	.06	
Extra7	**.59**	-.02	.07	.02	.12	
Extra8	**.40**	-.04	-.05	-.04	-.05	
Agreeableness (A)						.67 (.69)
Agree1	.13	**.55**	-.08	.10	.05	
Agree2	.10	.22	.12	-.13	-.03	
Agree3	.23	.28	.06	-.07	-.03	
Agree4	-.01	**.76**	.00	.06	.00	
Agree5	-.03	.33	.01	-.05	.00	
Agree6	.09	**.42**	.10	.12	.00	
Agree7	.12	.30	.11	-.06	.15	
Agree8	.08	**.73**	.03	.14	.05	
Conscientiousness (C)						.72 (.73)
Consc1	.14	-.04	**.46**	-.27	-.01	
Consc2	.18	.09	**.46**	.01	.06	
Consc3	.01	-.01	**.50**	.28	.09	
Consc4	.06	.05	.33	-.06	-.04	
Consc5	.10	.02	**.59**	.01	.00	
Consc6	.05	.03	**.59**	.22	-.03	
Consc7	.28	-.02	.38	-.15	-.08	
Consc8	-.08	-.01	**.71**	.06	.09	
Consc9	-.09	.23	.35	-.11	-.05	
Emotional Stability (ES)						.73 (.74)
Emot1	**.54**	.10	.00	.15	.05	
Emot2	-.08	.20	.13	**.59**	-.05	
Emot3	.27	-.02	.01	.38	-.11	
Emot4	**.43**	-.06	-.01	**.47**	-.14	
Emot5	**.66**	-.05	-.01	.25	-.09	
Emot6	**.41**	-.01	-.08	**.43**	-.14	
Emot7	.37	.18	.16	**.46**	.02	
Emot8	.07	.28	.11	**.61**	.01	
Openness to Experience (O)						.68 (.67)
Openn1	**.45**	.17	-.10	.10	.10	
Openn2	.08	.05	.01	.03	**.61**	
Openn3	.17	.04	-.22	-.05	.34	
Openn4	-.03	.00	.13	-.15	**.59**	
Openn5	.12	.03	.02	.05	**.63**	
Openn6	.01	.04	-.09	-.05	**.43**	
Openn7	.05	.02	.04	-.07	**.63**	

The emotional stability factor is the least clear of the five factors. Five of the items (Emot2, Emot4, Emot6, Emot7, and Emot8) have loadings over .40 on the emotional stability factor (Table 26). Emot1 and Emot5 have strong loadings on the extraversion scale. Emot4 and Emot6 have cross loadings on the extraversion scale. Emot3 has no loadings over .40 on any factor. However, the Emot3 loading of .38 can be still considered acceptable. This, combined with the content validity concerning the item, presents sufficient reason to keep its place on the scale. The final model clarity of the emotional stability factor is at the same level as that of the pilot model (Table 9). The final model coefficient alpha (.73) is slightly lower than that of the pilot model (.76).

The openness to experience scale is quite clear (Table 26). Items Openn2, Openn4, Openn5, Openn6, and Openn7 all have strong loadings over .40 on the openness to experience factor. Item Openn1 loads strongly on the extraversion scale. The item was kept on the scale on the basis of its content validity. Item Openn3 has a loading of .34 on the factor. No cross loadings exist. The openness to experience scale shows some structural improvement when compared to the pilot model (Table 9). The coefficient alpha for the final model is .68, closer to the .70 Nunnally (1978, p. 245) recommends. It is important to notice that the coefficient alpha improves from the pilot model, even when two items are removed from the scale. Overall, the factor structure of the final model shows clarity. If the model were to be redeveloped, the efforts would be concentrated on the emotional stability scale. Without the three items loading on the extraversion scale, the factor structure of the final model would have been surprisingly clear.

The intercorrelations between factors are an important aspect of the overall factor structure. Table 27 shows the intercorrelations between the five personality inventory scales.

Table 27. Intercorrelations between the Scales

Pearson Correlations					
	E	A	C	ES	O
E	1.00				
A	.23	1.00			
C	.15	.14	1.00		
ES	.48	.20	.14	1.00	
O	.22	.11	.00	-.01	1.00

Prob. > |r| under H0: Rho = 0

The orthogonal model assumes that the scales are not correlating with each other. The only major exception is the correlation between extraversion and emotional stability. The reason for this correlation can be seen in the final model factor structure in Table 26. The emotional stability items have strong loadings and cross loadings on the extraversion factor.

3.4.6. Goodness of Fit Analysis of the Final Model

Table 28 presents the goodness of fit statistics of the final model. The model fit is much better than that of the pilot model. Delta values display the difference between the pilot and final model. Although the GFI and AGFI have further improved, they are slightly short of the recommended levels of .90 and .80, respectively. The RMR (.048) falls below the recommended .08 level. The chi-square/DF ratio is slightly over the suggested value of 2. The RMSEA falls below the recommended .06 level, although the 90% upper confidence level is at .062. The CFI (.81) falls short of the recommended .90 level, although it still shows an improvement of .12 from the pilot model. When the final model is evaluated on the basis of the goodness of fit indices, the results demonstrate that the model has a moderate fit to the observed data. The overall comparison with the pilot model shows major improvements. All the goodness of fit statistics show better values for in final model than in the pilot model. Moreover, when the final model is compared with other structural analysis conducted on the five factor model, it can be found that the comparable model fit of the final model is good (Church and Burke, 1994; McCrae and Costa, 2004; Tokar et al., 1999).

A study by Church and Burke (1994) suggested that simple structure models of comprehensive personality structure (like the pilot and final models here) are unlikely to meet conventional or even relaxed goodness-of-fit criteria. In their analysis of a simple structure model of the big five personality factors, Church and Burke (1994) calculated relative indices (TLI = .47, NFI = .49, CFI = .52). Despite employing various statistical tools and procedures (allowing factors to correlate and other respecifications based on the LISREL 7 modification indices), they were unable to achieve indices over .9 from cross-validated samples. McCrae et al. (1996) conducted factor analyses on the NEO-PI-R five factor model. The goodness of fit indices they calculated were also a long way from the suggested levels for a good fit (for a simple structure, RMS = .18, GFI = .63, AGFI = .57, TLI = .52, NFI = .49, and CFI = .55). With model modifications, they were able to improve the indices; however, their orthogonal models still fell short of the guideline for a good model fit (McCrae et al., 1996).

Table 28. Goodness of Fit Statistics of the Final Model without Modifications Compared with the Pilot Model

Index	Value	Delta
Goodness of Fit Index (GFI)	.84	.17
GFI Adjusted for Degrees of Freedom (AGFI)	.77	.19
Root Mean Square Residual (RMR)	.048	-.018
Parsimonious GFI (Mulaik, 1989)	.63	.09
Chi-Square	1257	-378
Chi-Square DF	580	-537
RMSEA Estimate	.058	-.011
RMSEA 90% Lower Confidence Limit	.053	-.009
RMSEA 90% Upper Confidence Limit	.062	-.013
Bentler's Comparative Fit Index (CFI)	.81	.12
Bentler & Bonett's (1980) Non-normed Index	.74	.13
Bentler & Bonett's (1980) NFI	.70	.22
James, Mulaik, & Brett's (1982) Parsimonious NFI	.52	.13

3.4.7. Modified Final Model

The factor structure of the final model was further developed by introducing modifications to the structure. The idea of the exercise was to discover how well the goodness of fit of the model and the observed data could be improved with modifications. The model was modified concentrating on loadings that had values close to zero. This was done on basis of the modification indices provided by the SAS software. Altogether, 40 modifications were made. The modifications improved the model fit to some extent.

The factor structure of the modified model is presented in Table 29. A slight improvement in the clarity can be noticed. The major drawback to modifying the model is that the generalizability of the model might suffer. Therefore, the modified model was not used in the validation studies, and the unmodified model (final model without modifications) is presented as the result of this research.

Table 30 shows the goodness of fit statistics of the final model with modifications. The table also presents the calculated difference between the final model and the final model with modifications. It can be noted that the modified model shows a better model fit. Only the chi-square and RMR statistics did not indicate a better model.

Table 29. Varimax Rotated Factor Loadings and Alphas of the Final Model with Modifications

	Factor					Alpha
Facet and item	E	A	C	ES	O	(stand.)
Extraversion (E)						.76 (.76)
Extra1	**.61**	.07	.06	-.10	.11	
Extra2	**.62**	.02	-.03	.10	.06	
Extra3	**.64**	.13	.02	-.11	.13	
Extra4	**.60**	-.06	.15	-.05	-.05	
Extra5	.15	.17	-.02	-.07	-.02	
Extra6	**.66**	.02	.05	.07	.06	
Extra7	**.57**	-.06	.07	.01	.13	
Extra8	**.40**	-.03	-.04	-.05	-.03	
Agreeableness (A)						.67 (.69)
Agree1	.05	**.57**	-.08	.09	-.01	
Agree2	.09	.22	.12	-.12	-.02	
Agree3	.19	.28	-.02	-.07	-.02	
Agree4	-.04	**.77**	-.01	.06	-.01	
Agree5	-.04	.34	.00	-.05	-.01	
Agree6	.05	**.44**	.10	.05	-.01	
Agree7	.05	.29	.11	.02	.18	
Agree8	.04	**.73**	.03	.13	.04	
Conscientiousness (C)						.72 (.73)
Consc1	.14	-.03	**.46**	-.29	-.04	
Consc2	.17	.08	**.46**	.01	.06	
Consc3	.01	-.02	**.50**	.28	.08	
Consc4	.02	-.01	.33	-.04	-.02	
Consc5	.10	.01	**.59**	.01	-.03	
Consc6	.05	.02	**.59**	.21	-.01	
Consc7	.25	-.01	.37	-.20	-.04	
Consc8	-.08	-.03	**.70**	.05	.09	
Consc9	-.06	.24	.34	-.15	-.02	
Emotional Stability (ES)						.73 (.74)
Emot1	**.53**	.08	.00	.14	.05	
Emot2	-.08	.18	.13	**.60**	-.05	
Emot3	.26	-.08	.01	.38	-.11	
Emot4	**.43**	-.11	-.01	**.45**	-.14	
Emot5	**.65**	-.10	-.01	.24	-.09	
Emot6	**.40**	-.03	-.08	**.41**	-.15	
Emot7	.35	.16	.16	**.47**	.00	
Emot8	.06	.26	.11	**.63**	.03	
Openness to Experience (O)						.68 (.67)
Openn1	**.43**	.16	-.11	.02	.10	
Openn2	.08	.00	.02	.02	**.60**	
Openn3	.14	.01	-.23	-.09	.35	
Openn4	-.03	.03	.13	-.15	**.58**	
Openn5	.10	-.01	.03	.05	**.62**	
Openn6	.02	.01	-.09	-.02	**.44**	
Openn7	.04	.01	.02	-.04	**.65**	

Table 30. Goodness of Fit Statistics of the Final Model with Modifications Compared with the Final Model without Modifications

Index	Value	Delta
Goodness of Fit Index (GFI)	.84	.00
GFI Adjusted for Degrees of Freedom (AGFI)	.82	.05
Root Mean Square Residual (RMR)	.053	.005
Parsimonious GFI (Mulaik, 1989)	.78	.15
Chi-Square	1283	26
Chi-Square DF	722	142
RMSEA Estimate	.047	-.011
RMSEA 90% Lower Confidence Limit	.043	-.010
RMSEA 90% Upper Confidence Limit	.051	-.009
Bentler's Comparative Fit Index (CFI)	.84	.03
Bentler & Bonett's (1980) Non-normed Index	.83	.09
Bentler & Bonett's (1980) NFI	.70	.00
James, Mulaik, & Brett's (1982) Parsimonious NFI	.65	.13
Hoelter's (1983) Critical N	215	

3.5. Validation and Norming of the Final Inventory

This sub-chapter concentrates on norming of the final model of the personality inventory. The sub-chapter also covers the analysis of validity and reliability of the inventory. First, the norming of the inventory is explained, followed by the description of the validation sample. Then, the dimensions of validity and reliability of the personality inventory are analyzed. Finally the usability and benefits of the developed inventory are covered.

3.5.1. Norming

In this sub-chapter, the distribution of the test values (or scores) for each scale is presented individually. Also the item averages of the two different sub-samples (key account managers and students) are analyzed in further detail. But first, the classification of the total sample is presented (Table 31). Surprisingly, the ratio of men and women in both the sub samples were almost identical (close to 2:1). This makes the comparisons between male and female respondents easier when the influences of the possible differences between samples don't need to be considered.

Table 31. Classification of the Total Sample

Total sample N = 347	
Sub group	N
Women	115
Men	232
Managers	170
Students	177
Female managers	56
Male managers	114
Female students	59
Male students	118

Extraversion

From Table 32, it can be observed that statistically meaningful differences are found between students and managers, female students and female managers, and between male students and male managers. All these differences were statistically very significant (at the <.001 level). The scale on the other hand does not reveal a difference between the scores of all men and women, or men and women among managers or students. The range of scores of men (13 to 40) is wider than that of women (14 to 38). The range of scores of female managers is very narrow (20 to 38). The standard deviations of both male and female managers are smaller than the corresponding standard deviations of students. This might suggest that managers have a more cluster-like distribution of the scale scores.

When item score averages are analyzed by sample (Figure 18), it can be observed that the two samples show strong differences. Above each item score average are the results of the t-tests. The levels of significance are coded as follows: * = .05, ** = .01, and *** = .001. Items Extra1, Extra2, Extra3, Extra4, Extra6, and Extra7 show differences at the highest significance level (<.001). Item Extra5 shows difference at .01. All items except Extra5 show higher scores for key account managers than for students. Therefore, these differences could, for example, be explained by selection of university or job. It is possible that certain types of people apply to the universities of technology or certain types of people apply for key account manager job positions. Or, perhaps, the extraversion scores increase with age. The average age of the analyzed key account managers was 44, while that of analyzed students was 22.

Table 32. Distribution of Extraversion Scale Scores by Group

Distribution of Scale Scores: Extraversion	Minimum	Maximum	Average	Std dev	t-test[α]
All	13	40	28.2	5.16	-
Women	15	38	27.9	5.10	
Men	13	40	28.4	5.20	
Students	13	39	26.1	5.26	***
Managers	13	40	30.4	4.05	
Female students	15	37	25.6	5.05	
Male students	13	39	26.4	5.36	
Female managers	20	38	30.3	3.90	
Male managers	13	40	30.4	4.14	
Female students	15	37	25.6	5.05	***
Female managers	20	38	30.3	3.90	
Male students	13	39	26.4	3.87	***
Male managers	13	40	30.4	4.14	

*** = p<.001, ** = p<.01, * = p<.05

[α] Satterthwaite method t-tests were used because the variances can't be expected to be equal

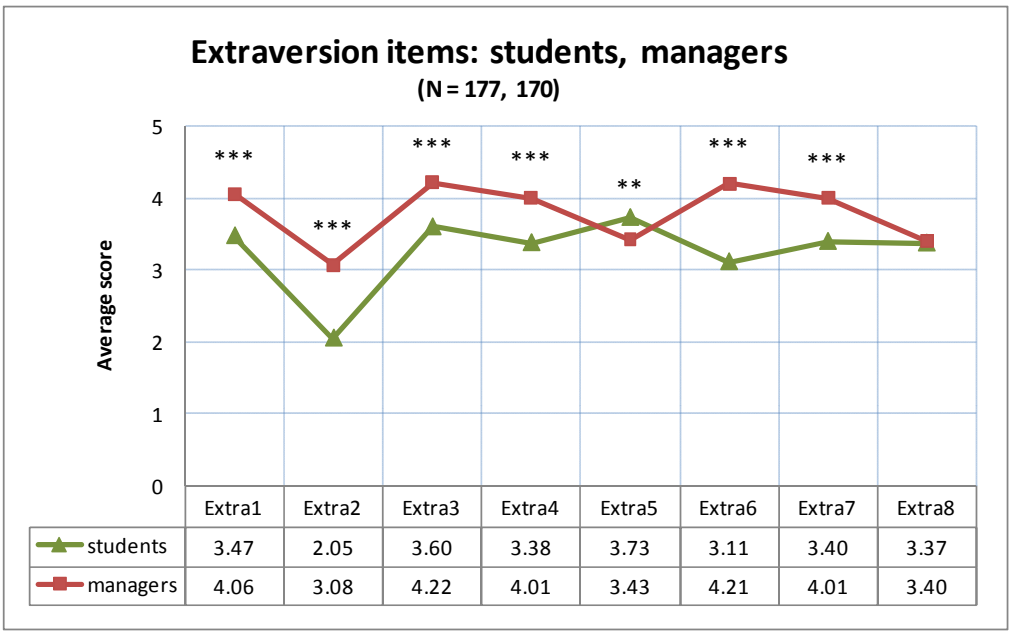
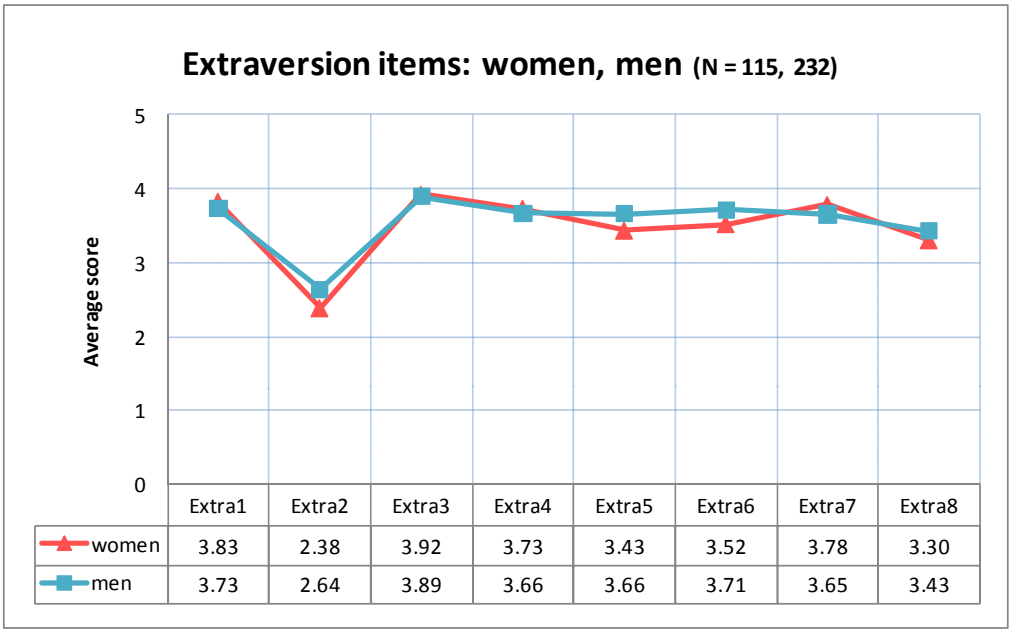


Figure 18. Extraversion Item Average Scores Grouped by Sample

The higher score for students with Extra5 is quite interesting. In all other items, managers have a higher average score. Moreover, in many cases the higher score is also statistically significant (in six out of seven items). Item Extra5 is neither reverse coded nor does it contain negative wording. An explaining factor for the difference might be that Extra5 maps a different internal dimension of the scale, compared to the other items. Table 11 shows that Extra5 is the only item that does not load on the first component.

There was a clear difference between samples concerning the extraversion scale. On the other hand, the extraversion scores appear to be independent on gender (as shown in Figure 19). Both samples had 33 percent women; hence, the average scores can be compared without concerning about the differences between the two samples. None of the items showed differences that were statistically significant at any level.



	Extra1	Extra2	Extra3	Extra4	Extra5	Extra6	Extra7	Extra8
women	3.83	2.38	3.92	3.73	3.43	3.52	3.78	3.30
men	3.73	2.64	3.89	3.66	3.66	3.71	3.65	3.43

Figure 19. Extraversion Item Average Scores Grouped by Gender

Agreeableness

Table 33 describes the distribution of agreeableness scale scores by group. Only minor differences can be observed between the groups. Only female managers and female students show statistically significant differences on average scores. The range of scores of men is slightly wider (13 to 37) compared to women (17 to 39).

Managers have a narrower range; both female and male managers have higher lower limit (20 and 21, respectively) while students start to have scores from 13 (men) and 17 (women). This might be explained by selection process, where key account managers have to have at least a certain level of agreeableness, getting accepted as a student requires mainly good grades in prior schooling or passing scores on the admission tests. Maximum scores are quite close for all groups. Also, the averages of students and managers are quite close to each other.

Table 33. Distribution of Agreeableness Scale Scores by Group

Distribution of Scale Scores: Agreeableness					
	Minimum	Maximum	Average	Std dev	t-test[α]
All	13	39	29.3	3.97	-
Women	17	39	29.2	4.54	
Men	13	37	29.4	3.67	
Students	13	39	29.0	4.29	
Managers	20	37	29.7	3.58	
Female students	17	39	28.3	5.06	
Male students	13	37	29.3	3.83	
Female managers	20	37	30.1	3.73	
Male managers	21	37	29.5	3.50	
Female students	17	39	28.3	5.06	*
Female managers	20	37	30.1	3.73	
Male students	13	37	29.3	3.83	
Male managers	21	37	29.5	3.50	

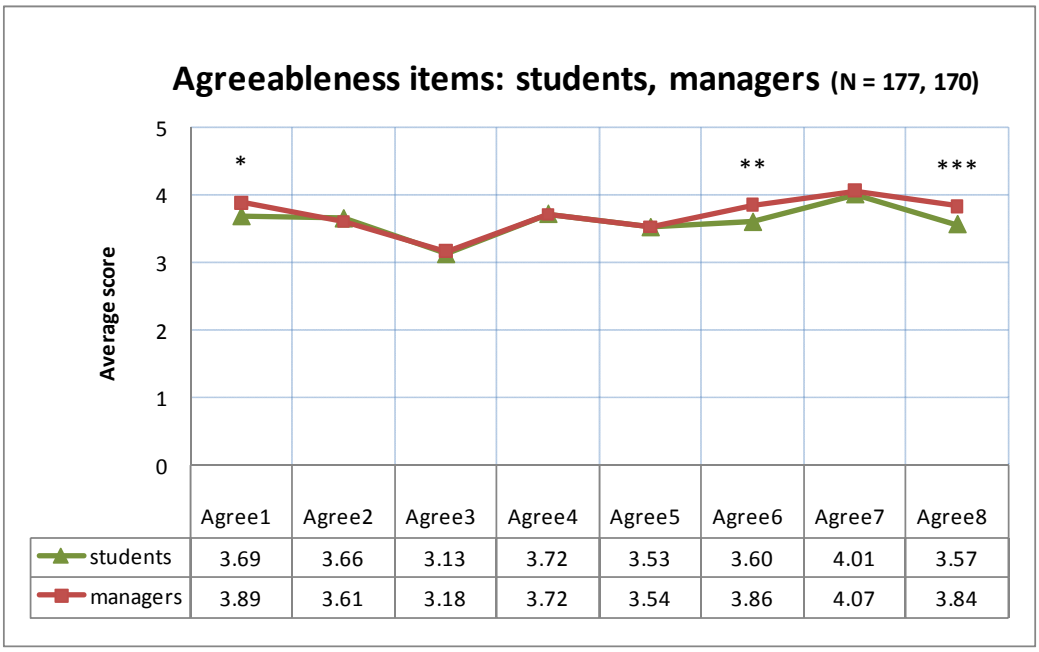
*** = p<.001, ** = p<.01, * = p<.05

[α] Satterthwaite method t-tests were used because the variances can't be expected to be equal

Figure 20 shows the average scores and results of the t-tests grouped by sample. The score averages of the agreeableness items are clearly closer together than those of the extraversion scale. Only three items out of eight show statistically significant differences. Item Agree8 has a statistically significant difference (<.001). Item Agree6 has a difference at significance level <.01, and item Agree1 has a difference at significance level <.05.

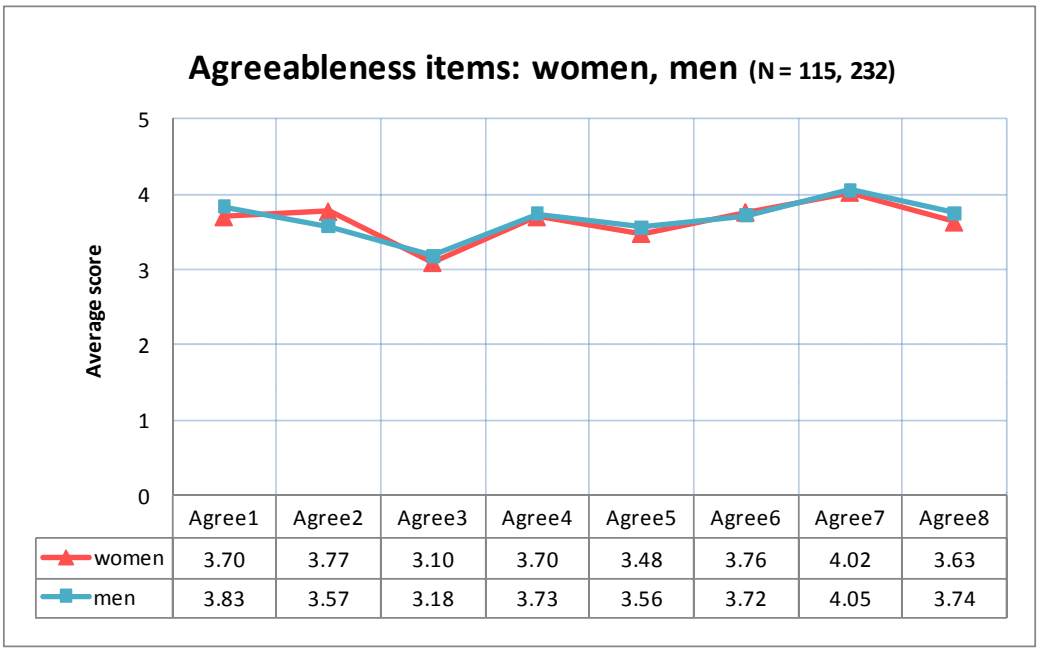
Similarly to Figure 20, Figure 21 also shows that agreeableness scale is much more indifferent to sub-groups than the extraversion scale is. As can be seen in Figure 21, the items' average scores are totally indifferent to gender. No statistically significant

differences can be found in the agreeableness items. The highest difference between averages is between the Agree2 scores. The average for women is 3.77, while the average for men is 3.57.



	Agree1	Agree2	Agree3	Agree4	Agree5	Agree6	Agree7	Agree8
students	3.69	3.66	3.13	3.72	3.53	3.60	4.01	3.57
managers	3.89	3.61	3.18	3.72	3.54	3.86	4.07	3.84

Figure 20. Agreeableness Item Average Scores Grouped by Sample



	Agree1	Agree2	Agree3	Agree4	Agree5	Agree6	Agree7	Agree8
women	3.70	3.77	3.10	3.70	3.48	3.76	4.02	3.63
men	3.83	3.57	3.18	3.73	3.56	3.72	4.05	3.74

Figure 21. Agreeableness Item Average Scores Grouped by Gender

Conscientiousness

Table 34 shows the distribution of conscientiousness scale scores by group. Like the agreeableness scale (tables), the conscientiousness scale does not show strong differences between the group averages. Students and managers and male students and male managers show differences in average at a <.01 significance level. Women have a narrower range in the scores (23 to 43) compared to that of men (17 to 45). Women also have a higher average, though it cannot be statistically proven. The higher averages, minimums, and maximums are partly due to a higher number of items in the conscientiousness scale as compared to other scales.

Table 34. Distribution of Conscientiousness Scale Scores by Group

Distribution of Scale Scores: Conscientiousness					
	Minimum	Maximum	Average	Std dev	t-test[α]
All	17	45	33.9	5.02	-
Women	23	43	34.5	4.43	
Men	17	45	33.6	5.27	
Students	18	43	33.1	5.01	**
Managers	17	45	34.8	4.89	
Female students	24	43	33.8	4.35	
Male students	18	43	32.7	5.28	
Female managers	23	43	35.3	4.44	
Male managers	17	45	34.6	5.10	
Female students	24	43	33.8	4.35	
Female managers	28	43	35.3	4.44	
Male students	18	43	32.7	5.28	**
Male managers	17	45	34.6	5.10	

*** = p<.001, ** = p<.01, * = p<.05

[α] Satterthwaite method t-tests were used because the variances can't be expected to be equal

The tendency that was observed on the extraversion items is observed on the conscientiousness items. Managers seem to score higher than the students (Figure 22); however, the differences are much smaller. Only two items showed differences on the highest level of significance (<.001), compared to the six items that did on the extraversion scale. Moreover, three items in the conscientiousness scale have a higher average score for students.

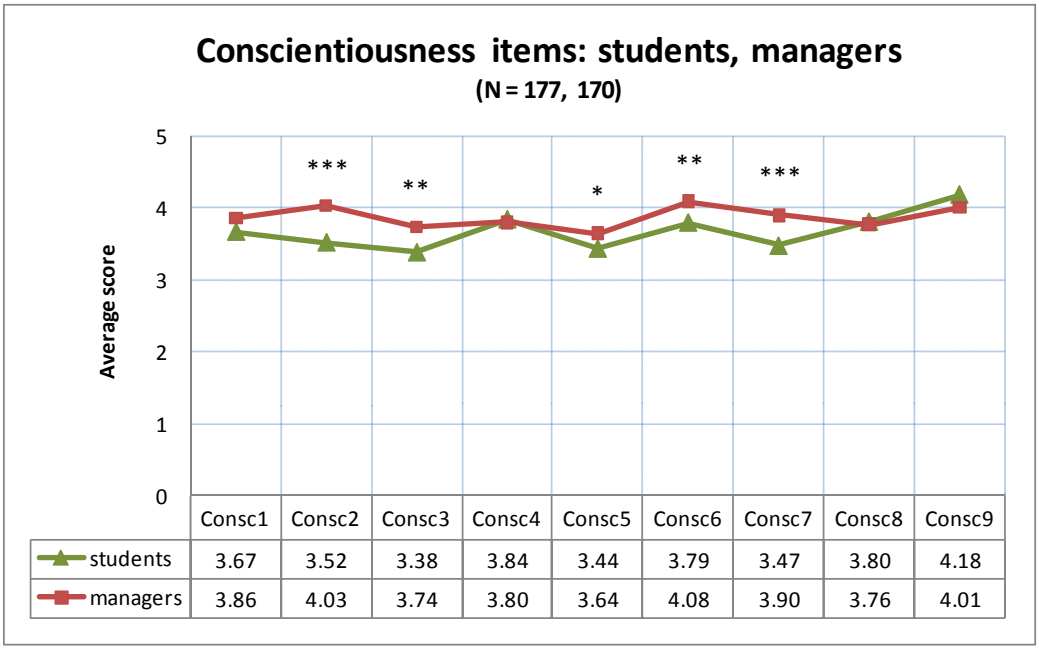


Figure 22. Conscientiousness Item Average Scores Grouped by Sample

The differences in the conscientiousness items between women and men are small (See Figure 23). No statistically significant differences were discovered with the t-tests. The highest absolute difference (.25) is with item Consc1 scores. It is interesting to note that the small differences all have the same direction. Women score slightly higher than men on the conscientiousness items.

Emotional Stability

The distribution of the emotional stability scale by group is shown in Table 35. With emotional stability, striking differences were found between the groups. All other groups had statistically very significant differences in average scores, with the exception of female and male managers. Men had higher emotional stability, as did managers as compared to students. These group differences are higher than any other group difference among the other personality factors. The group score ranges, on the other hand, were close to each other. Moreover, the standard deviations did not show large differences between the groups.

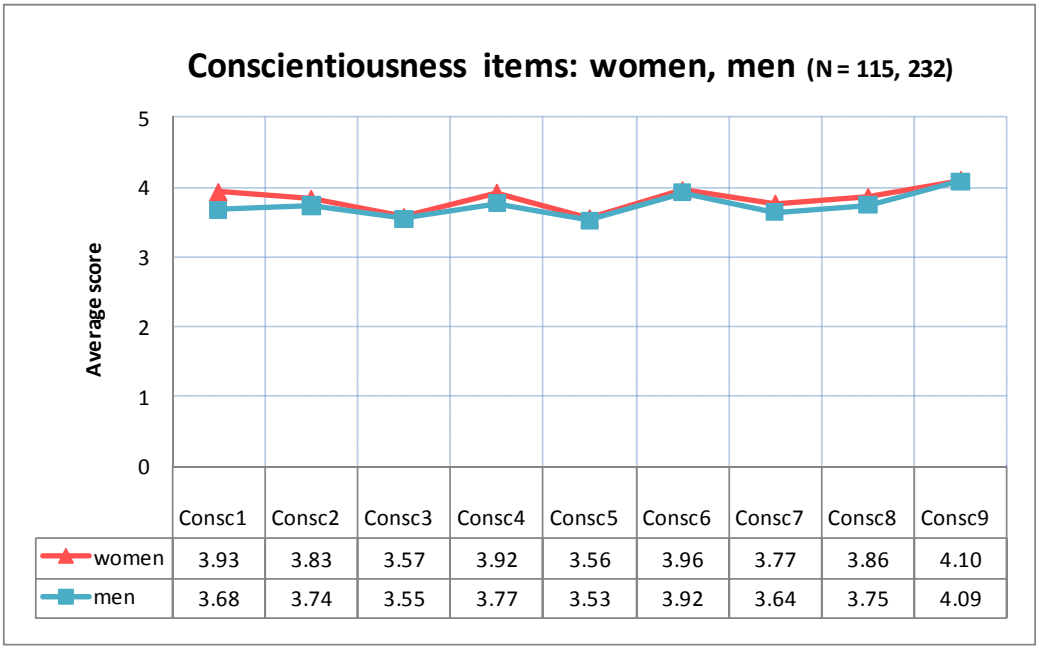


Figure 23. Conscientiousness Item Average Scores Grouped by Gender

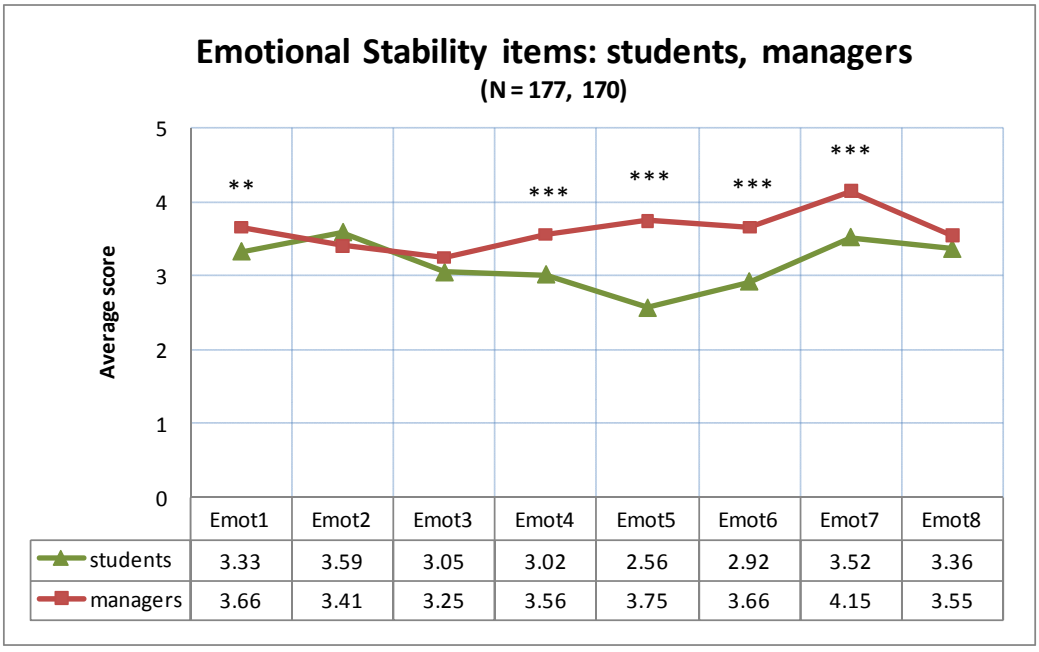
Table 35. Distribution of Emotional Stability Scale Scores by Group

Distribution of Scale Scores: Emotional Stability	Minimum	Maximum	Average	Std dev	t-test[α]
All	13	40	27.1	5.56	-
Women	13	37	25.2	5.69	***
Men	13	40	28.1	5.24	
Students	13	38	25.3	5.59	***
Managers	13	40	29.0	4.88	
Female students	13	36	22.2	5.12	***
Male students	14	38	26.9	5.16	
Female managers	17	37	28.3	4.46	
Male managers	13	40	29.3	5.06	
Female students	13	36	22.2	5.12	***
Female managers	17	37	28.3	4.46	
Male students	14	38	26.9	5.16	***
Male managers	13	40	29.3	5.06	

*** = p<.001, ** = p<.01, * = p<.05

[α] Satterthwaite method t-tests were used because the variances can't be expected to be equal

Most of the emotional stability items have statistically significant differences between the student sample and the key account manager sample (Figure 24). The highest difference is with item Emot5. This item deals with being nervous about important meetings. It is clear that key account managers have more experiences with important meetings and it is understandable that they exhibit more emotional stability in this respect. The same logic might explain the other differences as well. All items, except Emot2 show a higher score for managers than students.



	Emot1	Emot2	Emot3	Emot4	Emot5	Emot6	Emot7	Emot8
students	3.33	3.59	3.05	3.02	2.56	2.92	3.52	3.36
managers	3.66	3.41	3.25	3.56	3.75	3.66	4.15	3.55

Figure 24. Emotional Stability Item Average Scores Grouped by Sample

Differences also arise when the average emotional stability scores of women and men are compared (Figure 25). It seems that men score higher on emotional stability than women. Only item Emot1 has higher scores for women. Differences are clear. In five cases (Emot2, Emot3, Emot4, Emot6, and Emot8), the differences are statistically significant. Items Emot2, Emot4, and Emot8 show differences at the <.001 level, while items Emot3 and Emot6 have differences at the <.01 level.

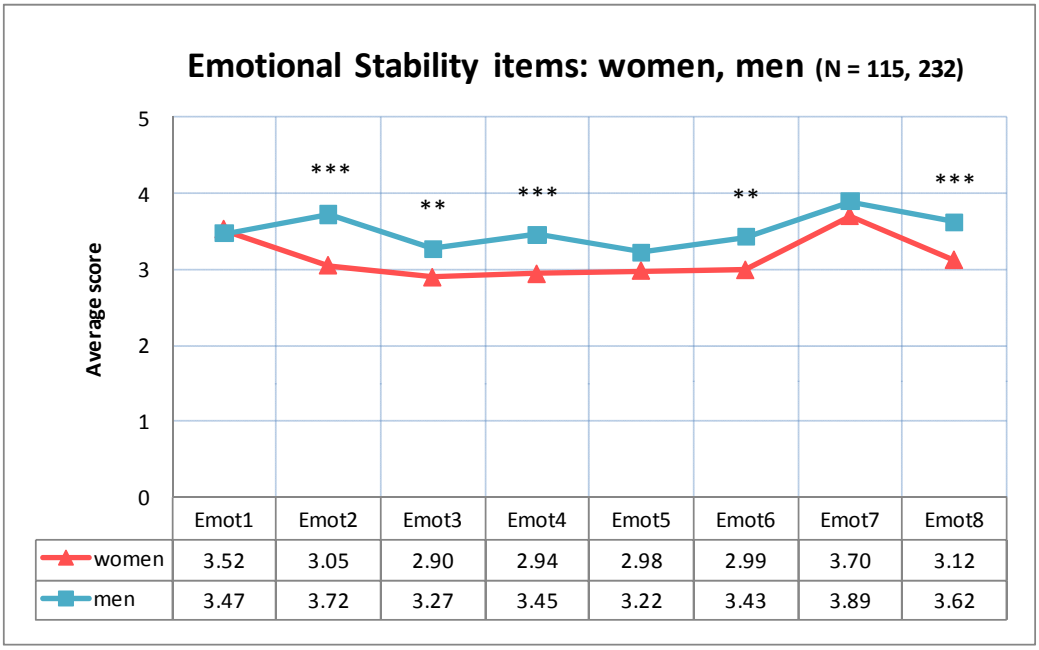


Figure 25. Emotional Stability Item Average Scores Grouped by Gender

Openness to Experience

Table 36 shows the distribution of openness to experience scale scores by group. Statistically significant difference is observed between women and men (at the <.001 level). Differences can also be seen between students and managers, female students and male students, female managers and male managers, and male students and male managers. These differences are at the <.01 and <.05 levels of significance. The ranges are close to each other. The lower scores, minimums and maximums, compared to other scales are partly due to the smaller number of items of the openness to experience scale[29].

Openness to experience shows some differences between the student sample and the key account manager sample (Figure 26). Items Openn1, Openn2, Openn4, and Openn5 show statistically significant differences: Openn1 and Openn4 at the <.05 level; Openn2 at the .01 level; and Openn5 at the <.001 level. In all these cases, except Openn3 and Openn6, the key account manager scores were higher than student scores.

[29] The theoretical maximum range of openness to experience scale scores is 7 to 35, compared to range of 8 to 40 of most of the other scales.

Table 36. Distribution of Openness to Experience Scale Scores by Group

Distribution of Scale Scores: Openness to Experience	Minimum	Maximum	Average	Std dev	t-test[α]
All	11	34	22.9	4.47	-
Women	13	34	24.2	4.50	***
Men	11	33	22.3	4.34	
Students	11	34	22.3	4.55	**
Managers	14	34	23.6	4.31	
Female students	13	34	23.5	4.59	*
Male students	11	34	21.8	4.44	
Female managers	14	34	24.9	4.32	**
Male managers	15	33	22.9	4.16	
Female students	13	34	23.5	4.59	
Female managers	14	34	24.9	4.32	
Male students	11	34	21.8	4.44	*
Male managers	15	33	22.9	4.16	

*** = p<.001, ** = p<.01, * = p<.05

[α] Satterthwaite method t-tests were used because the variances can't be expected to be equal

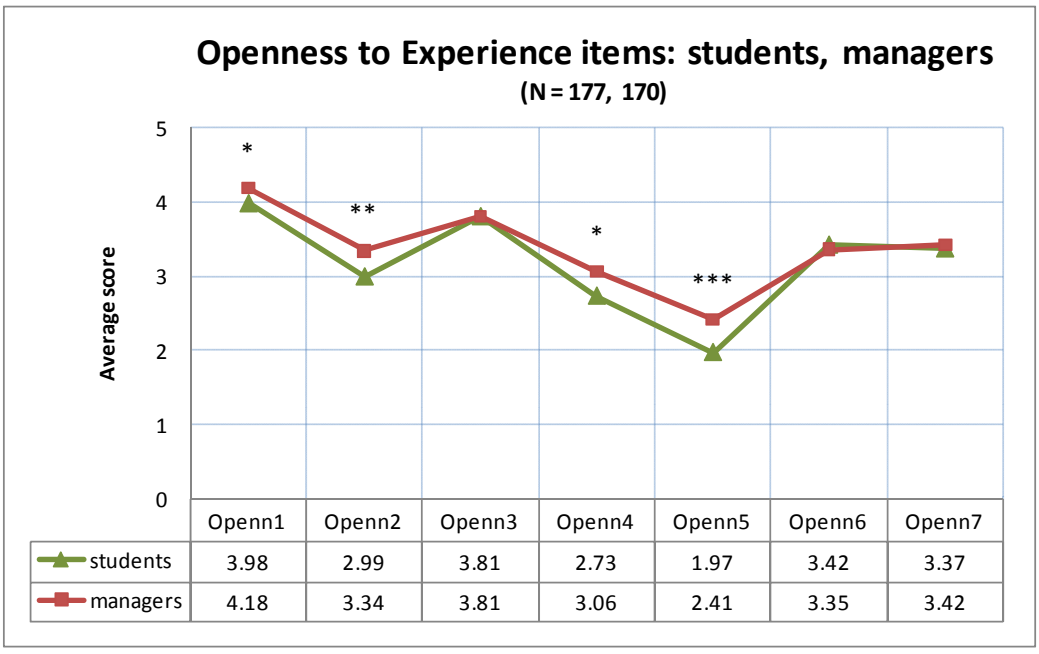


Figure 26. Openness to Experience Item Average Scores Grouped by Sample

The differences between women and men in the openness to experience scale are shown in Figure 27. The differences are statistically different with items Openn2, Openn4, Openn5, and Openn7. All the significance levels are at least at the <.01 level. These items form the first component of the scale (see Table 23). This component deals with the artistic dimension of openness to experience. Hence, women tend to appreciate things like music and poetry more than men.

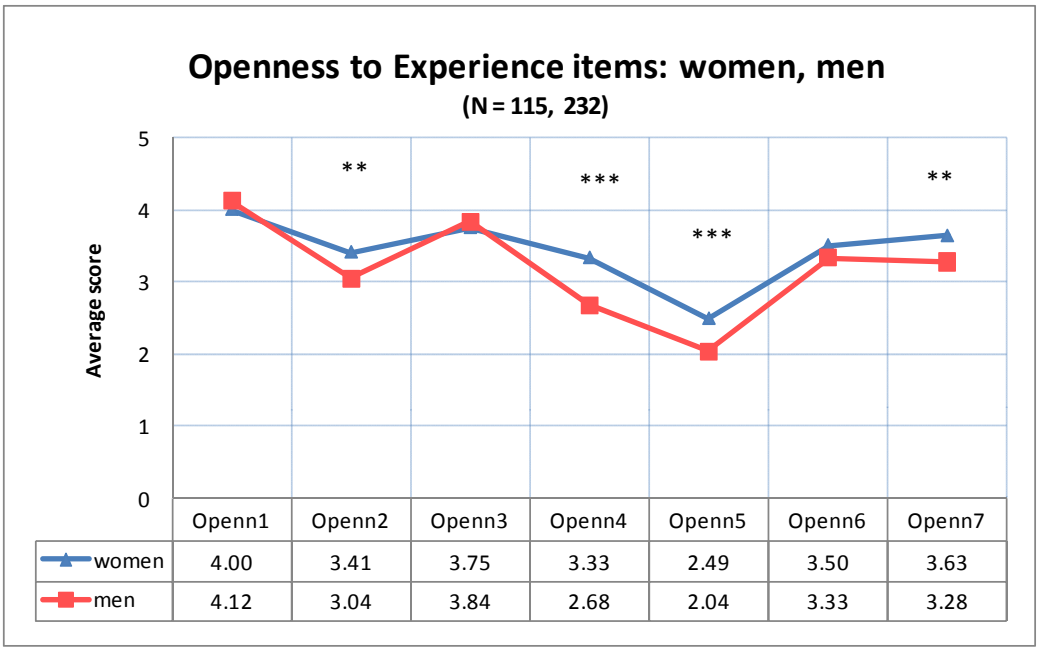


Figure 27. Openness to Experience Item Average Scores Grouped by Gender

3.5.2. Validation Sample

Even when the final model is originally based on reasoning and analysis of the pilot model data, it is still more or less fitted to the final model data. This happens when the final model is respecified to provide good and clear loadings, high communality estimates, high coefficient alphas, etc. The fitting process can eventually decrease the generalizability of the model, which is obviously undesirable. To examine the generalizability of the final model, a validation sample is gathered and an analysis is conducted to check how well the final model fits this validation data. The validation sample was gathered from students attending the course "TETA-1100: Basics of Industrial Management" in autumn 2009 and spring 2010. Altogether, 276 responses were obtained. The responses underwent a similar screening process as in the

previous samples[30] After the screening process, 255 usable responses were obtained. The validation sample fits the model well. The results of the statistical analysis of the validation sample can be examined in Appendices 2 to 10.

3.5.3. Reliability

Reliability can be defined as the consistency of a variable or a set of variables to measure a construct (Hair et al., 2006, p. 3). In measure context, reliability can be presented when a measure is used by different researchers with consistent results (McGivern, 2006, p. 337). In the development of the current personality inventory a major tool in analyzing reliability is the inventory item analysis (see Sub-chapter 3.4.4.). The item analysis presented internal consistencies ranging from reasonable to good, thus indicating reasonable (or good) reliability.

One of the measures of internal consistency is coefficient alpha. The alphas for the inventory ranged from .67 to .77. When compared to similar personality scales, the coefficient alphas can be seen to be in line with the other scales (McCrae and Costa, 2004; Parker et al., 2008; Sherry et al., 2007; Tokar et al., 1999). Coefficient alphas for personality inventory scales are typically lower than alphas for other types of measures. Segal and Coolidge (2004) evaluate personality inventories and note that tests with lower number of items will yield lower alpha coefficients. They mention that scales with seven or less items may possess reliability, which is not reflected by the alpha coefficient levels that fall short of the guidelines. According to Segal and Coolidge (2004), coefficient alpha values around .90 can be expected with scales of 30 or more items, while alphas will be lower for scales with fewer items.

3.5.4. Validity

Validity is one of the key issues in the assessment of the quality of research. Hair et al. (2010, p. 3) define validity as the "extent to which a measure or set of measures correctly represent the concept of study." In other words, validity can be understood as an indicator of whether the research measures what it is supposed to measure (McGivern, 2006, p. 79).

The difference between validity and reliability is that validity is concerned with the question of what is measured, while reliability pertains to the question how is

[30] See Sub-chapter 3.2.2. for detailed description of the screening process.

measured (Hair et al., 2006, p. 3). Different kinds of validities exist. One method of differentiating between validity of experiments is through two dimensions: internal and external validity (Burns and Bush, 2010, p.159). Internal validity implies the ability to deliver credible evidence to address the research question, while external validity refers to the generalizability of the research results to different contexts (McGivern, 2006, p. 79). Internal validity can be considered to consist of different dimensions. In the remainder of this sub-chapter, some of these dimensions are discussed. Face validity, content validity, convergent validity, discriminant validity, and criterion validity are explained and analyzed in the current research context. Finally, issues of external validity are discussed.

Face Validity

Face validity is the result of the researcher's intuitive judgment of the validity of a question or a measure, addressing whether an item or items describes the construct (Burns and Bush, 2010, p. 321). In the context of this research, face validity was considered in the development of the personality inventory and in the adaptation of performance measures. Along with the statistical analysis, face validity was considered in decisions such as which items were included in the original item pool and which items were included in the pilot and final models. Face validity should not be the only validity dimension to use, because the researchers own subjective perceptions, opinions, and attitudes might bias the assessment of validity.

Content Validity

Content validity is concerned with whether a measure truly covers the whole domain that is intended to be measured (Carmines and Zeller, 1979, p. 20; McGivern, 2006, p. 337). Content validity is important in the personality inventory development since a personality trait is a relatively broad construct and the development tools, like coefficient alphas, may drive the measures to be narrower. Content validity was considered in the personality inventory item development procedure. The broad nature of personality traits was taken into consideration during the selection of individual items. In many cases, coefficient alpha measures suggested the elimination of an item, but the content validity kept the items in place.

Convergent Validity

Convergent validity is shown when a group of indicators that are designed to measure the same (or closely related) constructs are moderately or strongly correlated

with one another (Hatcher, 1994, p. 255). Hair et al. (2006, p. 777) identify factor loadings, variance extracted, and reliability as ways to analyze convergent validity. High factor loadings indicate high convergence validity. At a minimum, the factor loadings should be statistically significant (Anderson and Gerbing, 1998). Convergent validity can be seen, for example, in the relationship between social desirability and agreeableness (see Table 37). In theory, agreeableness and socially desirable responding are related, and the correlation coefficient (.41) between the scores of the two constructs confirms the relationship, at the same time showing convergent validity. In this research, convergent validity is also evident in the rather strong factor loadings and variances extracted of the personality inventory.

Table 37. Correlation of Social Desirability and Personality Traits

Correlation (N = 347)

	Extraversion	Agree-ableness	Conscien-tiousness	Emotional Stability	Openness to Experience
Pear. Correlation	.10	.41	.30	.32	.06
Significance	.0560	<.0001	<.0001	<.0001	<.2470

Prob. > |r| under H0: Rho = 0

Discriminant Validity

Discriminant validity can be defined as the degree to which two concepts are distinct (Hair et al., 2006, p. 137). In order to evaluate the discriminant validity, the compared constructs should be similar in the structural sense, for example, for two personality trait factors. Correlation analysis is used in the discriminant validity test. For concepts to present discriminant validity, they should not correlate strongly with each other. Discriminant validity can be observed, for example, in the cases of correlations between extraversion and social desirability and between openness to experience and social desirability (Table 37). Discriminant validity is also shown in the intercorrelations between the personality traits (see Table 27). The only strong correlation is between extraversion and emotional stability, thus giving evidence of discriminant validity between all the other constructs.

External Validity

External validity means that the results of the research conducted with a specific sample can be generalized to apply to a wider population or that an observed relationship can be generalized to a different setting or time (Calders et al., 2001;

McGivern, 2006, p. 79). Evidence of external validity can be found in the results of the model fit between the personality inventory model and validation sample. The model fit statistics can be seen in detail in Appendix 10.

In light of the considerations discussed in this sub-chapter, it can be stated that the developed personality inventory shows reliability and internal and external validity.

3.5.5. Usability and Benefits of the Developed Inventory

Some Finnish FFM personality inventories have been developed over the years. Recently, Finnish versions of the NEO-PI-R and NEO-FFI were developed and validated (Lönnqvist et al., 2008; Lönnqvist and Tuulio-Henriksson, 2008). As with the original English-language version, the Finnish version of the NEO-PI-R inventory consists of 240 items. The inventory is, therefore, not best suited for statistical research, where the length of the questionnaire is an important issue. The Finnish version of NEO-FFI, on the other hand, is shorter, consisting only of 60 items. What limits the usability of the NEO-FFI (and NEO-PI-R) inventory in scientific research is its proprietary nature, which means that the inventories cannot be used for free. Yet another proprietary Finnish FFM inventory is the PK5 (Tapaninen et al., 2007, p. 9). This inventory consists of 150 items (Tapaninen et al., 2007, p. 14). Large number of PK5 items also makes the inventory a dubious option for the current research. One part of the scientific contribution of the current research is that the developed personality inventory is public domain and, therefore, is freely usable by the scientific community.

The developed inventory is not the only Finnish public domain FFM inventory. At least three Finnish public domain FFM inventories are also developed; the 300 item IpipNEO-PI-R, the 60 item Short Five, and the 10 item Kop (Lönnqvist et al., 2008). Among these inventories, the Short Five has the most potential for use in statistical research, as the 300 item inventory is too long to ensure adequate response rates and 10 item inventory is probably too short for adequate results. As mentioned before, the Short Five consists of 60 items and it is free to use in scientific research. One downside of the inventory is the nature of its items. The items are long, typically consisting of two sentences (Lönnqvist et al., 2008). This makes the inventory's usage in questionnaires a bit more difficult because of the length and also questionable because the two sentence items might be confusing to the respondent. The goal of the current inventory was to have short and clearly understandable items as requested by the guidelines for constructing a measure (Saucier and Goldberg,

2002; Spector, 1992, p. 23). The inventory that was developed for the current research has only 40 short items, which makes it a good compromise between brevity and accuracy for questionnaire designs.

The reliability of the currently developed inventory matches those of the previously developed inventories. The coefficient alphas of the developed inventory are well in line with the alphas of similar previously developed inventories (like the NEO-FFI). In addition, the fit indices regarding the factorial structure of the current inventory are comparable to those of previous inventories (see Sub-chapters 3.4.5. and 3.4.7). Factor loadings and factor structures are harder the compare, mainly because not all the researchers exhibit the factor structures or the factor loadings of their developed inventories. Nevertheless, some examples exist where factor structures are well presented and the comparison is possible (McCrae et al., 1996; McCrae and Costa, 2004; Tapaninen et al., 2007, pp. 93-97). When the final model factor structure (Table 26) is compared with the NEO-FFI model[31] factor structure by McCrae and Costa (2004), no strong differences of clarity or loadings can be identified.

[31] The NEO-FFI model is the closest in length and item structure to the developed short Finnish personality inventory and is, therefore, best suited for the comparison.

4. METHODS OF THE KEY ACCOUNT MANAGER RESEARCH

"There is no art to find the mind's construction of the face."
- Rowley Birkin, Q.C. (misquoting Shakespeare)

4.1. Research Approaches

In order to find the answers to the research question at hand, a suitable research design must be selected. A variety of research designs exists. Research designs can be categorized by the nature of the enquiry (exploratory and formal), method of data collection (observation, interview, and archival sources), researchers control over variables (experimental and ex-post facto), purpose of the study (descriptive, causal, and predictive), time dimension (cross-sectional and longitudinal), the topical scope (case study and statistical study), research environment (field setting, laboratory research, and simulation), and participants' perception of the research activity (actual routine and modified routine) (Blumberg et al., 2008, p. 196; McGivern, 2006, p. 53). Exploratory, experimental, observational, and survey design are among the broad options from which to choose (Blumberg et al., 2008, p. 196; Burns and Bush, 2010, p. 143; Malhotra, 2010, p.102). These broad options are introduced below.

Exploratory research is suitable in situations where the researcher has no clear idea of the problems he or she will face during the research (Blumberg et al., 2008, p. 201). Concepts and research designs are clarified during the research process (McGivern, 2006, p. 53). Exploratory research relies more on qualitative techniques (Blumberg et al., 2008, p. 201). Observational research involves the recording of behavioral patterns to obtain information about the phenomenon of interest (Malhotra, 2010, p. 230). Observational research can be divided into

behavioral and non-behavioral observations (Blumberg et al., 2008, p. 346). Behavioral observations include non-verbal, linguistic, extra-linguistic, and spatial analyses. Non-behavioral observations include physical condition and physical process analyses. Experimental research uses intervention to manipulate variables and to observe the effects on the study subject (Blumberg et al., 2008, p. 396). Experiments are commonly used to study causal relationships (Malhotra, 2010, p. 250). Survey research involves the questioning of respondents (Malhotra and Birks, 2000, p. 209). Survey research can be conducted by personal interview or by using phone, mail, or online surveys (Bingham and Gomes, 2001, p. 77; Malhotra, 2010, p. 212). New technologies have enabled improved data collection methods[32] (Burns and Bush, 2010, p. 237).

From a research design perspective, the current key account manager research could be characterized in following way: The nature of the research is formal. It uses an interview data collection method. The purpose of the study is to be descriptive at a minimum, though, depending on the analysis, a causal or predictive purpose would be preferable. The research is a cross-sectional, statistical study conducted in field settings.

The aim of this study calls for the gathering of statistically useful information. The most efficient research method in this regard is the survey method (Blumberg et al., 2008, p. 278). As mentioned earlier, the most commonly used survey methods are personal interviews, phone surveys, mail surveys, and online surveys. In this research, however, personal interviews and phone surveys were not considered due to many reasons. One of the reasons is the nature of the questions. For example, the personality inventory questions need a special focus from the respondent that cannot easily be achieved in phone surveys. Personal interviews, on the other hand, would require vast amounts of time and other resources to reach the data collection objectives and was, therefore, left out of consideration.

The following sub-chapters (4.1.1 and 4.2.2) will clarify the benefits and disadvantages of the two most suitable survey methods for use in this research. These methods are mail and online surveys. Finally, the reasons behind the selection of the survey method are described.

[32] For example computer-assisted telephone interviews and online surveys.

4.1.1. Mail Surveys

The tradition of mail surveys is a long one. For example, in the United States' presidential elections, mail surveys have been used since the early 20th century (Benson, 1946). The benefits of the mail survey method include relatively low cost, geographical flexibility, minimal staffing requirements, reaching a large sample simultaneously, reduced interviewer bias, ability to reach respondents who would not give personal interviews, and improved validity because of anonymity and thoughtful response (Benson, 1946; Bingham and Gomes, 2001, p. 78; Blumberg et al., 2008, p. 282; Kotler and Keller, 2007, p. 47; Malhotra and Birks, 2000, p. 218).

Drawbacks of the mail survey method mainly result from the lack of an interviewer (Bingham and Gomes, 2001, p. 78). Respondents can't ask questions when they face a problem when answering the questionnaire. Flexibility of the interview is very limited. Everything that can be asked in the interview must be included in the questionnaire. Other disadvantages include the low response rate, slow recovery of the responses, and lack of complexity (Benson, 1946; Blumberg et al., 2008, p. 283; Kotler and Keller, 2007, p. 47; Malhotra and Birks, 2000, p. 218).

4.1.2. Online Surveys

Online surveys have gained popularity with the help of the development of the internet and www technologies. Eurostat research (Lööf, 2008) found that an average of 60 percent of households in 27 European countries have internet access[33]. An increased number of households with internet access can help to overcome the challenge of representativeness in online surveys. Benefits of online surveys include the real-time capture of data, large geographical scope, low expenses, versatility of the interview, opportunity to use graphics, video, and sound, opportunity to establish secure connections from the respondent to the research database, and the ability to reach a large number of potential respondents from webpage banners or pop-ups (Burns and Bush, 2010, p. 274; Johnson, 2001; Mahlamäki, 2001, p. 79; Malhotra, 2010, p. 219; Kotler and Keller, 2007, p. 47). Compared to a mail questionnaire, an online version could be more convenient for some respondents. Also, more technologically savvy respondents might be more likely to answer an online questionnaire.

[33] The number is up from 49 percent in 2006 and 56 percent in 2007.

The disadvantages of online surveys include lack of personal touch, lack of representativeness[34], skewness of the sample, and the possibility of encountering technical problems and inconsistencies (Burns and Bush, 2010, p. 274; Johnson, 2001; Mahlamäki, 2001, p. 79; Malhotra, 2010, p. 219; Kotler and Keller, 2007, p. 47).

4.1.3. Selection of the Survey Method

Choosing between a mail questionnaire and an online questionnaire as a primary survey method was not easy. Both methods could be implemented and both methods could fulfill the data collection objectives with the available resources. Mail surveys and online surveys both have clear benefits and disadvantages. However, based on the overall situation, the mail survey seemed to have more value for this research.

One of the reasons for choosing a mail questionnaire was the sensitivity of some of the issues to be researched. Sensitive issues, for example, are found in the questions used to assess personality and the ones used to measure work performance. Also, a professionally designed mail questionnaire with the university logos, templates, handwritten signature in the cover letter, and return envelopes, prepaid and directed to university address, probably conveys more trust than a www-link in an e-mail. Another advantage of a mail questionnaire is that a letter will probably receive greater attention than an e-mail, thus helping with the response rate.

4.2. Questionnaire Design

For the purposes of this research, a mail questionnaire was designed. The questionnaire included topics such as personal background information, key account managers' work tasks and responsibilities, key account manager personality, job performance, and well-being at work. Well-being at work was emphasized for three reasons. First, the well-being at work data was used in a different study[35]. Secondly, it was believed that the issue of well-being would be close to the hearts of many key account managers[36]. It was further believed that a topic that was perceived as

[34] Especially in a context where the target population's computer literacy levels are low.
[35] See Mahlamäki and Leppänen, 2009.
[36] More interesting (salient) topic has been found to be increasing the response rate (see Heberlein and Baumgartner, 1978; Edwards et al., 2009).

interesting and important would increase the willingness to respond to the survey. Finally, well-being at work was introduced as a major topic for this research for the purpose of masking the real research topic: job performance. It was theorized that if a respondent would know from the start that the questionnaire was about his or her job performance it would create bias in the responses. The respondent might start to consider how he or she is expected to answer and then answer in that fashion. Given this situation, the masking would improve the quality of respondents' self-reports concerning their job performance.

Overall, the quality of the self-reports was a major concern during the questionnaire development. Rasinski et al. (2005) identify ways to reduce the barriers to honest answering and also ways to increase the motivation to answer honestly. They suggested methods such as giving the respondent assurances that the responses will stay strictly confidential and that the identity of the respondent will stay anonymous. More honest responses can also be achieved by explaining at the beginning of the questionnaire the importance of the research and survey topic. Yet another method is asking the respondents to give candid and considered answers. Each of these described methods is used in the current research.

The questionnaire was divided into five major sections: background questions regarding the respondent, background questions about the respondent's organization, personality of the respondent, well-being at work, and account management. Background questions were asked at the beginning of the questionnaire. The idea of this was to not start with questions of a sensitive nature, which have been found to reduce the response rates (Edwards et al., 2009). It was theorized that by using this easy start the respondent would become increasingly committed to answering the whole questionnaire.

Following the background questions about the respondent and his or her company, the respondents were asked questions about their personality. A specially developed personality inventory was used in the questionnaire. Respondents' goals were studied by using the learning and performance goal orientation measures developed and validated by Sujan et al. (1994). At the end of the questionnaire, the respondents were asked to make self-evaluations of their performance in aspects of customer-related work (communications quality, intrepreneurial quality, and perceived effectiveness). Previously developed and validated measures were used (Buckling and Sengupta, 1993; Kuratko et al., 1990; Mohr et al., 1996; Sujan et al., 1994). Finally, questions were asked about customer feedback, possible bonus rewards, and

feedback from superiors and colleagues in order to get an outside view of the managers' performance. The whole questionnaire, with its cover letter and reminder letter, is exhibited in Appendices 11 to 13 in Finnish.

4.3. Target Population

The goal of this research is to clarify the relationship of personality and key account manager job performance. It was, therefore, logical that key account managers were considered as the target population. Finnish key account managers were chosen mainly for pragmatic reasons. Finnish key account managers are all expected to speak Finnish, which made it easier to design the questionnaire. Because it is almost impossible to identify all the key account managers in Finland, thus making the size of the population unclear, a non-probability sample was used.

National contact information provider Fonecta was chosen to be the source of key account manager name and address information. The selection was based on the fact that the provider had one of the largest databases of company contact information in Finland. Names of over 700 persons with a job title of "Key Account Manager" or the equivalent Finnish titles "*Avainasiakaspäällikkö*" or "*Avainasiakasjohtaja*" were obtained.

4.4. Data Collection and Screening

The data collection procedure started with the mail questionnaires. Letters containing the questionnaires, cover letters, and return envelopes were sent to each of the over 700 key account managers whose contact information was obtained. The first responses came back two days after the questionnaire letters were sent. Altogether, 132 responses were received within three weeks.

A follow-up contact has been proven to increase the response rate (Edwards et al., 2009; Heberlein and Baumgartner, 1978; Larson, 2005). Therefore, letters were sent to remind potential respondents to complete and return the questionnaires. The reminder letters were sent three weeks after the first letters were sent[37]. Edwards et

[37] And one week after the requested submission deadline.

al. (2009) also note that response rates are increased when the original questionnaire is sent along with the follow-up letter. To save some workload and to give the technology enthusiast a chance to use the electronic communication method, an online questionnaire was created. The link to the questionnaire was sent along with the follow-up letter in hope that some respondents would see it as a more convenient way to respond[38].

It took between 14 minutes and 101 minutes to fully complete the online questionnaire. The average time to complete the form was 28 minutes. If two outliers (98 and 101 minutes) are taken away, the average time to respond drops to 21 minutes. In the cases of outliers it is very probable that the respondents took a break in the middle of responding.

As mentioned earlier, 132 responses were received before the reminder letters were sent. After the reminder letters, 34 responses were received by mail and another 22 through the online questionnaire. The last responses were received two months after the initial questionnaires were sent. All these 188 responses were included when the data screening and analysis phases started.

The data from the mail questionnaires was entered manually into Microsoft Excel worksheet. The data from the online questionnaire could be saved in Microsoft Excel format, so there was no need for manual data transfer. During the data entering process, the responses were screened for obvious filling errors. Eight responses were empty or had a minimal number of answers (most of these were online responses). These responses were omitted from the data. Screening was also done to identify responses that were filled hastily[39]. In the screening, no suspicious responses were found. After the screening, 180 responses remained for further analysis.

4.5. Treatment of Missing Data

As described in the previous chapters, the key account manager data used in the analysis was based on filled questionnaires. When questionnaires have a large number of questions, it is very likely that some questions are left without an answer.

[38] Or if they had misplaced the original mail questionnaire.
[39] Showing hastily written handwriting or a large number of repetitive selections of the same answer choice in the multiple choice questions.

The reason for a missed answer might be carelessness, refusal to answer, or ambiguity of the question. The missing data regarding the current research was small compared to the whole data set. Missing observations consisted of less than one tenth of a percent of the total data. If a respondent's questionnaire submission had more than one missing score in a measure, the response was discarded from the relevant analysis. If a respondent's submission had one missing score, a data imputation method was used to fill that missing observation. In some situations, like in the development of the personality inventory, even stricter rules were followed, meaning that no missing responses were tolerated.

Kline (2005, pp. 53-56) introduces several different data imputation methods. In mean substitution, a missing observation is replaced with the overall sample average. Mean substitution is a simple method, but it can distort the underlying distribution of the data, making distributions more peaked at the mean (Vriens and Melton, 2002). In regression based imputation a missing score is replaced with a prediction based on the respondents' non-missing variables. Pattern matching is a more creative method of data imputation. The idea of pattern matching is to find matching profiles from the overall data. The missing observation is then copied from the matching profile. Structural equation modeling programs offer model-based imputation methods (Tempelaar et al., 2007). One of those is the expectation-maximization algorithm, which is a step-by-step process. First, the missing observations are imputed with predicted scores in a series of regressions. This is also called the estimation step. In the maximization step (second step), the imputed data set is put through maximum likelihood estimation. These two steps are repeated until a stable solution is reached.

Due to the very small number of missing observations and the limitation of one missing observation per response, a simple imputation method was chosen. Missing data was replaced by the respondent's average responses on other questions concerning the specific measure the missing data belonged to. A similar method was used, for example, by Tempelaar et al. (2005).

Altogether, nine data imputations were made in the responses of personality inventory items. Even though the respondent was asked to select only one option from the personality questions, in four cases the respondent had chosen two answer options. These occurrences were restricted to mail questionnaires because the online questionnaire had a built-in feature preventing the respondent from selecting two answer options. In the cases of these two-answer choices, the answer closest to the respondent's average response to the measure items was selected.

In three responses, there were more than one missing score in a certain measure. Two of these incidences were regarding performance related measures. In those two occurrences, all the performance questions were left unanswered. In the remaining occurrence, both the personality questions and performance questions were left unanswered. All these three responses were omitted from the analysis of factors affecting job performance.

4.6. Description of the Sample

This sub-chapter describes the key account manager sample. The sample consists of 180 responses. There is a possibility that the key account managers sample deviates from the theoretical description of a key account manager. The reason for the possible difference is twofold. Firstly, the theoretical description of key account manager tasks and roles (described in Sub-chapters 2.1.5. and 2.1.6.) is quite idealistic. Secondly, there was no screening of the responding key account managers on the basis of their job description. Consequently, the used definition of key account manager is actually the one the companies are using in real life, not the theoretical model of key account manager.

Because of the risk of the key account manager sample differing from the theoretical description of a key account manager, it is very important to examine the sample in detail. The characteristics of the current sample must, therefore, be analyzed carefully. Who are the Finnish key account managers? What are their primary work tasks? How many key accounts does a manager have to manage? What qualify as key accounts? These questions are answered next.

Key Account Manager Gender and Age

Table 38 shows the age distribution statistics of the key account manager sample. The minimum and maximum ages for both gender groups are presented. Averages and standard deviations are also calculated.

It was found that 33 percent (N = 59) of Finnish key account managers were women and 67 percent were men (N = 121). One reason for the relatively high number of

men can be explained by the nature of the business-to-business market[40], which has traditionally been dominated by men. The average female key account manager is slightly younger than their male counterparts. The average age for female key account manager was 43.80 years, while the average for male was 45.78 years. The minimum and maximum ages were also higher for the male key account managers. The oldest key account manager was 63-year-old. In Figure 28, the ages of key account managers are compared to those of the average Finnish working population (Tilastokeskus, 2009a).

Table 38. Descriptive Statistics of the Key Account Manager Sample

Age by gender (N = 180)

	N	Minimum	Maximum	Average	Standard deviation
Women	59	26	59	43.80	8.95
Men	121	29	63	45.78	8.41

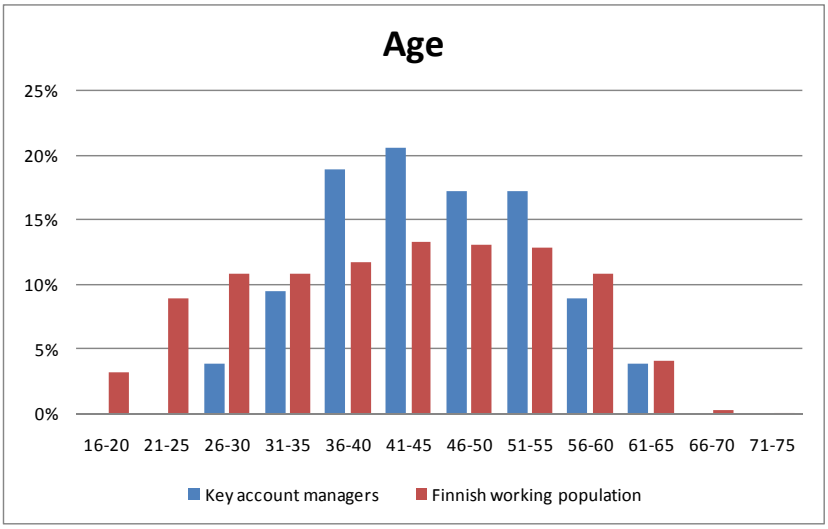


Figure 28. Age Distribution

When Finnish key account managers are compared to the working population in Finland it can be seen that the average key account manager is older than the average worker. The average key account manager is 45.13 years old and the average worker

[40] Business-to-business markets were identified by the key account managers as the most common working environment.

is 41.6 years old. Higher education (see Figure 29) for key account managers and prior (sometimes required) work experience can be an explaining factor. From the work experience questions asked, it was discovered that key account managers usually had customer work experience prior to their key account manager position. None of the key account managers were under 26-year-old and only four percent were between 26 to 30 years of age.

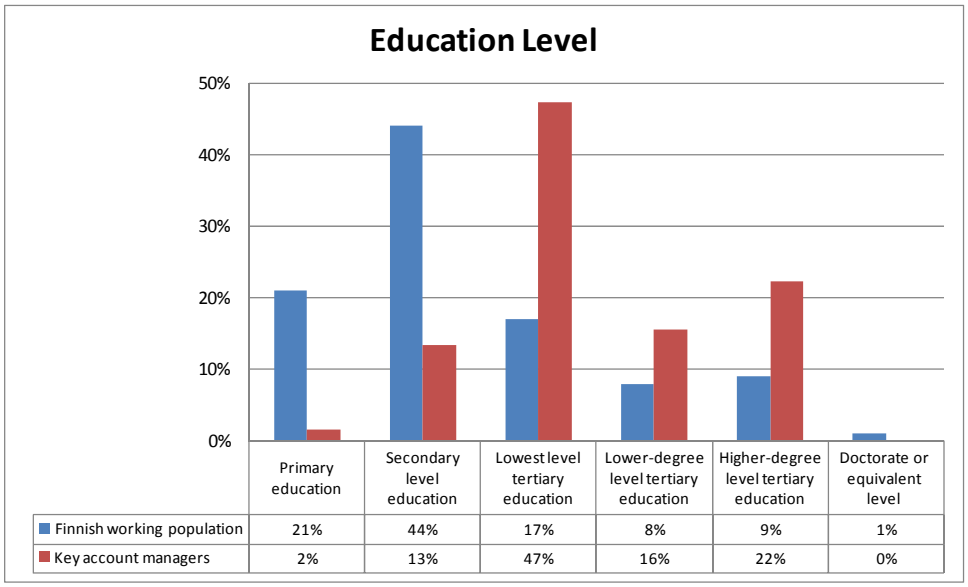


Figure 29. Education Level

At the older end of the age scale, the proportion of the key account managers is again smaller than in the working population in average (this can be seen at the 56 to 60 and 61 to 65 age groups). The reason for the lower proportion may be due to the relatively new job title of "key account manager". Another reason for the lower proportion of key account managers could be the career development of the managers. The key account manager might take another step up the corporate ladder before the retirement age, thus lowering the proportion of older key account managers.

Figure 29 illustrates the education levels of key account managers and the average Finnish working population. When comparing the education levels, it can be seen that key account managers clearly have a higher education level (Tilastokeskus, 2008; Varsinais-Suomen Liitto, 2005). While primary and secondary education counts for over 60 percent of the Finnish working population, only 15 percent of the key account managers belong to that group. An explaining factor of the high

proportion of primary and secondary level education among the average working population could be the societal change towards higher education. Forty years ago it was only a small portion of the public who were able (or willing) to educate themselves to a higher level. Today, only 14 percent of students finish at secondary level education. The same number 40 years ago was 40 percent (Tilastokeskus, 2009b). This, combined with the fact that key account managers are not as represented at the higher age groups, can partly explain the seemingly higher education levels of key account managers.

Even though the education level of a typical key account manager is high compared to that of the average Finn, it cannot be said that Finnish key account managers would mostly have an academic background. Only a little over 20 percent of the key account managers had a master's degree and none of the interviewed key account managers had a doctorate or an equivalent degree. In the normal working population, one percent has a doctorate degree or equivalent (Tilastokeskus, 2008).

Work Experience in Customer Work

Figure 30 shows the customer work experience of key account managers. The average work experience with the current employer is 10 years. In contrast, the work experience with managing customer relationships was much higher, averaging 15 years. It seems that a key account manager is a position where a long history of managing customer relationships is seen as essential.

Figure 30. Work Experience

Over 40 percent of Finnish key account managers started with a new (or first) employer within the past five years. This could mean that the key account managers have a quite weak company loyalty. Another explanation could be that the key account managers' acquired skill sets are seldom company specific, which would make it easier for them to take up alternative job offers from other companies.

Job Description

The key account managers were asked, "Are your customers mainly: a) Business customers, b) Public sector customers, or c) Consumer customers". It can be clearly seen that Finnish key account relationships are mainly business-to-business relationships (Figure 31). Over 91 percent of the key account managers identified businesses as their primary key account customers. If public organizations are taken into account, the percentage of organizational customers raises to over 98 percent. None of the key account managers selected the consumer customers as the only answer and only one percent of the respondents marked the answer choice "c" (consumer customer) as part of their answer. It is very clear that key account management is an organizational phenomenon.

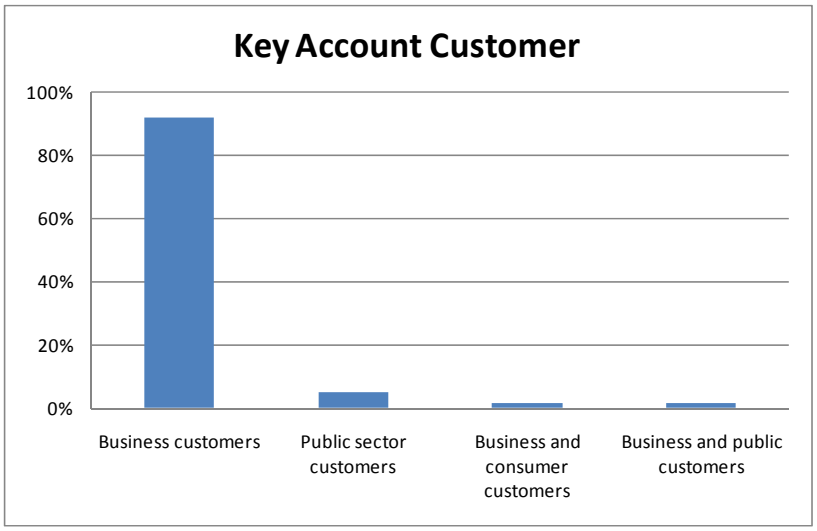


Figure 31. Key Account Customer

Key account managers were asked how many key accounts they were responsible for. Over 40 percent of the managers had a maximum of five key accounts (Figure 32). This means that a high percentage of key account managers had only a few key accounts. Still, 18 percent of the key account managers had 20 or more key

accounts. One explanation for the high number of key accounts might be due to organizational behavior, where companies give their employees better sounding job titles. A salesman might be given the title of key account manager in order to impress potential customers.

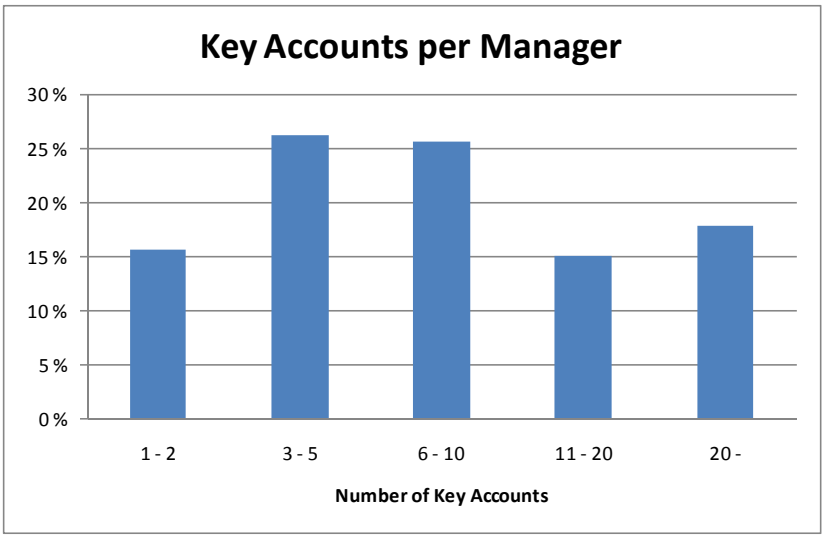


Figure 32. Key Accounts per Key Account Manager

When comparing the number of key accounts to the ideal (according to McDonald and Woodburn, 2007, p. 30) situation of 15 to 35 accounts, the numbers of actual accounts seems low. It has to be remembered that the ideal number of key accounts depends, among others things, on the market situation and customer size. If, for example, the key account is large and strategically very important for the selling company it might be a very sound strategy to commit one key account manager full-time for that account.

Key account managers were asked, "Does your work consist primarily of a) Relationship Management, b) Sales, or c) Something else - if so what?" Most of the key account managers consider themselves mainly as relationship managers (Figure 33). Quite a large number (37 percent) of key account managers consider their work to be mainly sales oriented. This might be considered to be in conflict with the traditional wisdom concerning the role of a key account manager. This could also be seen as proof that the title of key account manager is used in order to give more prestige or credibility to a salesperson, for example.

When the primary work tasks are compared to the ideal time allocation of key account managers (McDonald and Woodburn, 2007, p. 307), an interesting point emerges. The theoretical ideal time spent on sales is 5 to 10 percent. However, 37 percent of key account managers identify sales as the primary work task. Closer analysis of the situation may give an explanation. We have to remember[41] that McDonald and Woodburn (2007, p. 307) identified 12 different important key account manager tasks. Even if a key account manager task is ranked as the most important, it is still one out of 12 and it is hard for it to occupy a large percentage share (30 or 40 percent) of time allocation. Consequently, the two numbers can't be compared reliably. More evidence supporting this comes from the numbers of who chose relationship management. Forty-eight percent of the key account managers chose relationship management as a primary work task, while the ideal time allocation for developing relationships is 20 percent.

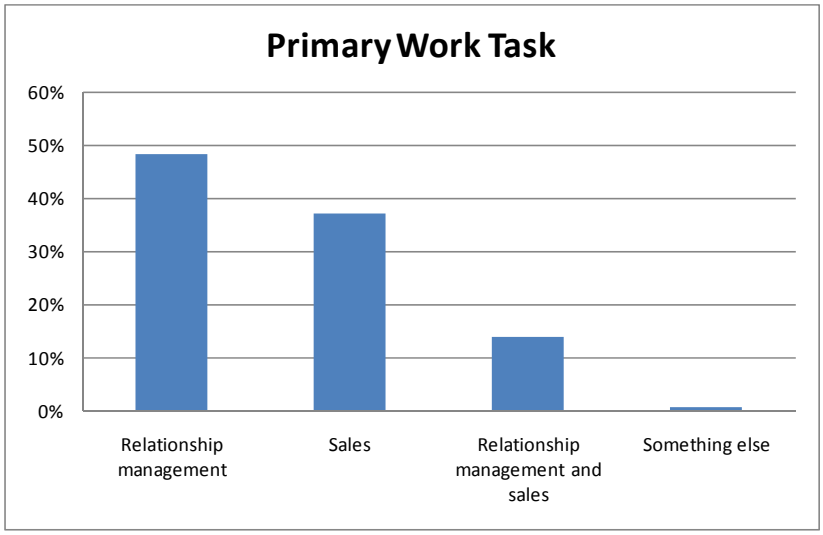


Figure 33. Key Account Manager Primary Work Task

The question was designed so that the respondent would choose a single option from the alternatives provided, yet over 10 percent of the respondents marked both "a" and "b" in their response forms. It is evidently difficult for key account managers to choose their primary work task. Other tasks that were mentioned, by marking the answer choice "c" were consulting, contract making, education, marketing, and training.

[41] From Sub-chapter 2.1.5.

In order to clarify the nature of key account relationships, the respondents were asked how often they were in contact with their accounts. Figure 34 shows the percentages of different contact frequencies. Over 50 percent of the managers indicated that they were in contact with their key accounts at least once a week. 16 percent of the key account managers reported having contact with their key accounts once in six months or less.

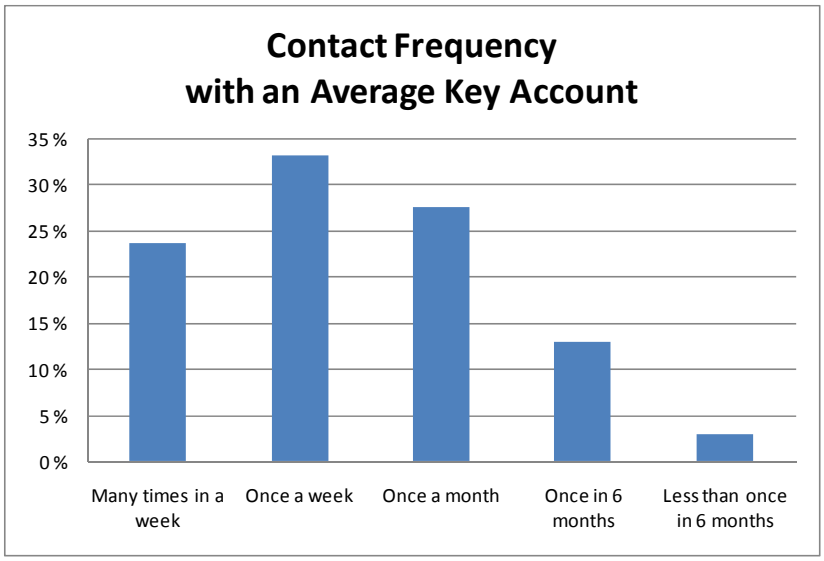


Figure 34. Contact Frequency with an Average Key Account

With these results in mind, one aspect that should be considered is the concept of socially desirable responding[42]. This means that sometimes respondents' answers tend to reflect generally held opinions or expectations (see, e.g., Moorman and Podakoff, 1992; Rudmin, 1999; Thompson and Phua, 2005). In this case, it might be that key account managers are expected to have close relationships with their key accounts, and therefore the contact frequency is expected to be high. To have a more reliable result, the same question could be asked to the key accounts themselves. Another option would be to obtain some actual contact data, for example, from phone records or from e-mail logs.

After the descriptive analysis of the sample regarding key account manager roles and tasks, it can be concluded that the interviewed sample does not differ greatly from the theoretical description of a key account manager. Relationship management was

[42] For more detail on social desirability response see Sub-chapter 4.7.4.

identified as the most frequently conducted work task with sales a close second. Numbers of key accounts were also in line with the theoretical optimum. The compatibility of the theoretical model and the actual work environment gives more validity to the research as a whole and makes the results easier to generalize across countries and cultures.

4.7. Measures

This sub-chapter introduces the different measures used in the analysis. The independent variables include personality traits. Dependent variables are the relationship performance, sales performance, and overall job performance. Background variables include such variables as gender, age, education level, and work experience. The measure of social desirability was used in the evaluation of the quality of the data.

4.7.1. Dependent Variables

On basis of the definition in Sub-chapter 2.2, key account manager job performance is considered to be a combination of relationship performance and sales performance. These two dimensions are presented next.

Relationship performance

Relationship performance was measured by using a scale validated by Sengupta et al. (2000). Even though Sengupta et al. (2000) named the construct "key account salesperson perceived effectiveness" they clearly concentrate on the performance of relationship management. The scale items were originally measured using a 5-point Likert scale, going from 1 (Strongly disagree) to 5 (Strongly agree). The same scale was used in the current research. The items used to measure the relationship performance are as follows:

	As Key Account Representative I have:
RelaP1:	promoted future cooperation with the customer account.
RelaP2:	built a productive, worthwhile customer relationship.
RelaP3:	built a customer relationship that will outlive my tenure with the customer account.

To test the reliability of the scale, coefficient alpha was derived. Table 39 shows item averages, item standard deviations, item correlation with total, and the scale alpha coefficients. Average scores are quite high, ranging from 4.39 to 4.55. "Correlations with total" values are reasonably high, providing evidence of the internal consistency of the scale. As might be expected, removing an item would not increase the coefficient alpha.

Table 39. Relationship Performance Scale Item Statistics

Scale Item Statistics (N = 173, Scale coefficient alpha = .67)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
RelaP1	4.55	.61	.41	.66
RelaP2	4.42	.68	.52	.51
RelaP3	4.39	.72	.51	.53

Eigenvalue analysis was conducted to test the dimensionality of the scale. The results are shown in Table 40. The only eigenvalue that is above 1.00 is with the first extracted component. The second component's eigenvalue is well below 1.00. These facts suggest that one component solution for the factor structure is recommended. Principal component analysis was conducted to further analyze the unidimensionality. Table 41 shows that all the items loaded significantly on the component. Items RelaP2 and RelaP3 with loadings of .60 seem to be contributing to scale a bit more than item RelaP1, with a loading of .53.

Table 40. Eigenvalue Analysis of Relationship Performance

Eigenvalues of the Correlation Matrix (N = 173)				
Component	Eigenvalue	Difference	Proportion	Cumulative
1	1.80	1.11	.60	.60
2	.69	.18	.23	.83
3	.51		.17	1.00

Both relationship performance and sales performance were measured by using a small number of scale items. The reliability[43] of the measures would benefit from using scales with a higher number of items. The reason for the use of scales with a

[43] Or at least the reliability in the light of the coefficient alpha.

minimal number of items is partly due to the questionnaire's length. It was hoped that the response rates would improve with a not too lengthy questionnaire. However, that was not the most important reason to use three item scales. The more important reason was to uphold the respondent's perception of a survey concentrating mainly on well-being at work rather than on job performance. In other words, the rationale to use short scales was to minimize the effects of responder biases on the research data and to increase response rate.

Table 41. Principal Component Analysis of Relationship Performance

Principal Components (N = 173)	
Item	Load
RelaP1	.53
RelaP2	.60
RelaP3	.60

Sales Performance

Sales performance was measured by using a modified performance scale originally developed by Sujan et al. (1994). The original scale went from -5 (much worse) to +5 (much better). The scale used in this research was a 5-point Likert scale going from 1 (Strongly disagree) to 5 (Strongly agree). The original scale consisted of seven items. In order to have a scale applicable to all types of industries, companies of all sizes, and all types of markets, four of the items were omitted. For example, the item "assisting your sales supervisor to meet his or her goals" could have been difficult to answer for the employee of a very small company, where no sales supervisors exist. Wording was modified slightly to better suit the different answer choices, the Finnish environment, and the key account management context. Coefficient alpha for the original seven item scale was found to be .91. The used sales performance items are:

How well do the following statements describe you?

SaleP1: The accounts I manage are financially important to my company.
SaleP2: I have a strong contribution to my company's good market share.
SaleP3: I exceed my sales targets.

Analysis of the sales performance scale was also conducted. Table 42 shows the item averages, item standard deviations, item correlations with total, and the scale alpha coefficient. Coefficient alpha is lower than the alpha for relationship performance. The low alpha (.56) raises questions about the internal consistency of the scale. The scale item average scores are somewhat lower than the respective averages for relationship performance.

Table 42. Sales Performance Scale Item Statistics

Scale Item Statistics (N = 173, Scale coefficient alpha = .56)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
SalesP1	4.58	.65	.36	.47
SalesP2	4.04	.87	.40	.41
SalesP3	3.80	.73	.35	.49

Table 43 shows the eigenvalue analysis of the sales performance scale. As may be expected, the analysis suggests a one component solution. The second extracted component has an eigenvalue of .74, which falls short of the 1.00 level, giving the one component solutions more credibility.

Table 43. Eigenvalue Analysis of Sales Performance

Eigenvalues of the Correlation Matrix (N = 173)				
Component	Eigenvalue	Difference	Proportion	Cumulative
1	1.60	.86	.53	.53
2	.74	.08	.25	.78
3	.66		.22	1.00

Principal component analysis of sales performance (Table 44) shows the loadings of the items on the sales performance factor. All the item loadings are above .55, suggesting a good factor structure. The loadings are all quite close to each other, with values ranging from .56 to .60.

Table 44. Principal Component Analysis of Sales Performance

Principal Components (N = 173)	
Item	Load
SalesP1	.57
SalesP2	.60
SalesP3	.56

Key Account Manager Job Performance

Key account manager job performance is a sum variable consisting of relationship performance and sales performance. The distribution statistics of the measure is presented in the following table (Table 45).

Table 45. Distribution Statistics of the Performance Measures

Norms of the Performance Measures (N = 173)				
Measure	Average	Standard deviation	Minimum	Maximum
Relationship Performance	13.36	1.57	9	15
Sales Performance	12.42	1.65	8	15
Key Account Manager Job Performance	25.79	2.79	18	30

As can be seen in Table 45, the maximum score for both, relationship and sales performance, is 15. The average scores of the sub dimensions are relatively close to each other (13.36 for relationship performance and 12.42 for sales performance). Thus, the weight of the two components stays close to 50 percent each. The average of relationship performance is slightly higher than the average of sales performance, so the weight of relationship performance is a bit higher than the weight of sales performance on key account manager job performance.

4.7.2. Independent Variables

In this research, personality traits are considered as independent variables. With correlation analysis, there is always the problem of causality (Chamorro-Premuzic, 2007, p. 35). What is the underlying causal path between the variables? Which variable affects the other, or is there perhaps a third variable that affects both of the

two first variables? In this research setting, the classification of variables to dependent and independent is clear. In personality research, the prevailing dispositional approach views personality as something consistent and unchanging (Chamorro-Premuzic, 2007, p. 14). A consistent and unchanging personality can, with comfort, be defined as the independent variable. Furnham (1992, p. 32) gives more validation to the definition by stating that in an organizational setting, personality (or more precisely personality scores) is nearly always the independent variable.

As discussed in Sub-chapter 2.3.1., the personality traits according to the Five Factor Model are extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. The personality traits were assessed by the inventory created for this purpose (see Chapter 3). The following table (Table 46) presents the measured variables and their scores and distribution statistics.

Table 46. Distribution Statistics of the Personality Traits

Distribution statistics				
Measure	Average	Standard deviation	Minimum	Maximum
Extraversion (N = 174)	30.49	3.76	20	38
Agreeableness (N = 175)	29.55	3.54	20	37
Conscientiousness (N = 173)	34.87	4.60	21	45
Emotional stability (N = 175)	28.89	4.79	13	39
Openness to experience (N = 175)	23.59	4.23	14	34

4.7.3. Background Variables

In the analysis, some traditional and context specific background variables are used. The typically used background variables include gender, age, and education level. Background variables that were specific to this research setting were the number of key accounts, work experience with the current employer, well-being at work, and customer work experience.

4.7.4. Socially Desirable Responding

Self-report surveys are widely used in management research (Thompson and Phua, 2005). In the present research, key account manager job performance is measured

and personalities are assessed with the help of self-report instruments. Self-reporting as a business research method has its advantages, but it also brings certain challenges. One of the challenges is socially desirable responding (Donaldson and Grant-Vallone, 2002; Thompson and Phua, 2005).

Socially desirable responding can be defined as an inclination to respond in a way that will present the respondent in a favorable manner (Beretvas et al., 2002; Krosnick, 1999; Thompson and Phua, 2005). With socially desirable responding, the respondent acts on the perceived need to obtain approval from the surrounding society. Donaldson and Grant-Vallone (2002) analyzed how a socially desirable responding tendency correlated with self-reports of job performance, citizenship behavior, vitality, drug use, tendency to loaf at work, and work attendance. They found that respondents who scored high on the social desirability scale rated themselves higher than average on their job performance, citizenship behavior, and vitality. Socially desirable responding showed also with self-reports of drug use and tendency to loaf at work; in these self-reports the respondents rated themselves lower than the average. Donaldson and Grant-Vallone (2002) could not identify a statistically significant difference with socially desirable responding and work attendance.

The most widely used and cited[44] social desirability scale was published by Crowne and Marlowe in 1960 (Thompson and Phua, 2005). Crowne and Marlowe (1960) started with 50 items they extracted from existing personality inventories. They analyzed the item pool with the help of a student population and were able to reduce the number of items to 33. The items were all true or false questions. They estimated the internal consistency of the 33 items as .88, and the test-retest correlation as .89[45] (Crowne and Marlowe, 1960).

Later, short versions of the Marlowe-Crowne scale were created (Ballard, 1992; Reynolds, 1982; Rudmin, 1999; Strahan and Gerbasi, 1972). The most popular versions were created by identifying the items that loaded strongest on the first latent factor of the principal components analysis (Barger, 2002).

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[44] Thompson and Phua (2005) reported more than 1,900 citations as a result from a query of "Marlowe-Crowne Scale" from the Social Science Citation Index for the time period 1974-2002.

[45] The internal consistency estimates were calculated using responses of 39 students and the test-retest correlation was calculated using the responses of only 31 students (Beretvas et al., 2002). The small number of responses may influence the reliability of the figures. Many of the subsequent validation studies fail to reach such high internal consistency estimates (Beretvas et al., 2002; Loo and Thorpe, 2000).

Social desirability measures, like the Marlowe-Crowne scale, are mainly used in the validation of survey responses (Beretvas et al., 2002). Beretvas et al. (2002) identify three main uses for the social desirability measures. The first use is to analyze the discriminant validity of a measuring instrument. The scores of the social desirability scales are correlated with the scores of the measuring instrument. In this case, non-substantial correlations provide the evidence of discriminant validity. The second use involves factor analysis in the similar fashion. A factor explaining responses to the social desirability measure is hoped to be discrete from the factors of other studied constructs. The last use for the social desirability scales is the screening of research data from the responses with a high social desirability score.

This research uses a short version of Marlowe-Crowne social desirability measure to analyze the discriminant validity of the personality scales constructed, as well as to screen the responses with elevated scores on the social desirability measure. The short-form Marlowe-Crowne scale that was used was developed by Rudmin (1999). Instead of the "true" and "false" answering choices used by Rudmin, a Likert scale was used. The reason for the different answering scale was mainly to better incorporate the scale into the questionnaire. The use of the Likert scale enabled the distribution of the Marlowe-Crowne items within the personality inventory items. By doing this, the Marlowe-Crowne items didn't stand out from the other items (also making the whole more coherent). The use of continuous (e.g., Likert scale) instead of dichotomous (e.g., true or false) scoring has been found more reliable. Stöber et al. (2002) found that the coefficient alphas were substantially higher with measures of socially desirable responding using continuous scoring[46]. Table 47 shows the distribution statistics of the Marlowe-Crowne social desirability scale that was used.

Table 47. Distribution Statistics of the Short-form Marlowe-Crowne Scale

Distribution Statistics (N = 179, Scale coefficient alpha = .60)				
Measure	Average	Standard deviation	Minimum	Maximum
Social desirability	6.95	4.51	-4	18

The theoretical minimum for the short-form Marlowe-Crowne scale is -20, and the theoretical maximum is 20. From the distribution statistics it can be seen that the

[46] The comparison was made by using measures with same items; only the answer choices were different (either continuous or dichotomous).

average is well above zero (at 6.95), while the minimum score was -4 and the maximum was 18.

Table 48 shows the correlations between social desirability and job performance. The weak correlation between relationship performance and social desirability and between overall job performance and social desirability might suggest that individuals with high socially desirable responding tendencies overestimate their job performance levels. Another explanation would be that socially desirable responding tendency shows somehow in key account manager work, making these individuals performing better[47].

Table 48. Correlation of Social Desirability and Job Performance

Correlation (N = 175)	Relationship performance	Sales performance	Overall performance
Pearson correlation	**.18**	.12	**.18**
Significance	.0144	.0879	.0173

Prob. > |r| under H0: Rho = 0

For screening purposes all the responses with socially desirable responding scores of 16, 17, 18, 19, or 20 were screened out from the data. Altogether, four responses were deleted on the basis of this rule.

4.7.5. Variable Relationships

Table 49 presents the intercorrelations between the studied variables. High correlations between overall job performance and relationships performance and sales performance (.86 and .88, respectively) can be explained by the fact the overall job performance is a sum variable of relationship performance and sales performance.

Extraversion had the highest intercorrelations between other personality traits. Three out of four intercorrelation were statistically significant, but the correlations were always under .35. Conscientiousness and openness to experience were the two personality traits with the lowest average intercorrelations with other traits.

[47] Or another variable exists that affects both social desirability response and job performance.

Table 49. Intercorrelations between the Variables

Variable	1	2	3	4	5	6	7
1. Extraversion	1.00						
2. Emotional stability	.19**	1.00					
3. Conscientiousness	.05	.25**	1.00				
4. Agreeableness	.34***	.20**	.10	1.00			
5. Openness to experience	.30***	.12	-.03	.01	1.00		
6. Relationship performance	.26***	.16**	.25***	.07	.16	1.00	
7. Sales performance	.28***	.22**	.25**	.09	.10	.51***	1.00
8. Overall job performance	.31***	.22**	.29***	.09	.15	.86***	.88***

*** = p<.001, ** = p<.01

Prob. > |r| under H0: Rho = 0

4.8. Data Screening and Validation

The data set was first screened for outliers. Plot graphs were used in the detection of outliers concerning the personality inventory and job performance measures. After the detection of an outlier it was decided to omit the data point in questions. Data imputation was considered as an alternative to omitting, however, it was found unnecessary because only three outliers were found.

The responses were screened for socially desirable responding. A short form Marlow-Crowne social desirability measure was used. As explained in Sub-chapter 4.7.4, the measure ranges from -20 to 20 (The positive 20 being the most socially desirable responding respondent). In the screening process the cutoff level was decided to be placed at 16, meaning that if a respondent got a social desirability score of 16, 17, 18, 19, or 20 the whole response would be removed from the data set. When the data was analyzed, four responses were found which met the cut out criteria. In all the deleted responses the respondents rated themselves above the average on job performance. This gives evidence that the screening process improves the data quality.

The personality inventory included control questions where the same statement was first worded positively and in other questions the same statement was worded negatively. If the respondent then answered to both questions with the same extreme answer choice, e.g., “strongly agree” and “strongly disagree”, it then might be

theorized that the respondent didn't pay enough attention to the questions which is causing unnecessary bias to the research data. The inventory included two pairs of control questions. If the respondent answered with the same extreme answer choice to either one of the pairs, then the response was screened out. When the key account manager data was analyzed, no responses were found to be suspicious in this respect.

As mentioned earlier, there were two cases of missing scores (more than one missing score) in the performance measurement items, and one case of missing scores in both personality and job performance measures. These three responses were obviously omitted from the analysis of personality's effects on job performance.

To summarize, from the original 188 responses 8 were identified in the initial screening as incomplete answers. From the resulted 180 responses four were omitted as being social desirability responses, and three were omitted because of having too many missing scores. This left 173 responses. Depending on the outliers, there exist 171 to 173 data points available for the analysis of individual personality traits effects on job performance measures.

4.9. Data Analysis

In order to test the research hypotheses, different analyses were conducted. The analysis tools can be divided into those used in construct definition, and to those used in the study of the relationships between variables of interest. The analysis tools used in the construct definition are explained in Sub-chapter 3.2. This chapter concentrates on the data analysis tools used with the key account manager data.

In this research, data analysis methods are used to clarify the relationships between the dependent variables (relationship performance, sales performance, and key account manager overall job performance) and the independent variables (extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience). The relationship between job performance and the background variables was also studied. First, correlation analyses were conducted between the independent, the background, and the dependent variables. Statistical significances of the correlations were also studied. After that, regression analyses were conducted between independent and dependent variables.

4.10. Validity and Reliability of the Dependent Variables

A number of potential biases can diminish the validity of the dependent variables[48] (i.e., the job performance measures, including relationship performance, sales performance, and overall job performance). As mentioned previously, the social response bias can occur with self-reports. In order to improve the validity of the measure, a social desirability measure was used to screen the data from potentially biased responses. Another way to reduce the effects of social desirability response bias was the masking of the performance topic in the questionnaire.

Where scale measures are concerned, the following validities can be assessed: content, criterion, construct, convergent, and nomological validity (Malhotra, 2010, pp. 320-321). Different types of validities were described earlier in detail in Sub-chapter 3.5.4.

Content validity can be considered to be good since the measure items were individually evaluated to fit the Finnish key account manager context. The construct validity[49] of the job performance measures is based on the theoretical model of key account manager job performance presented in Sub-chapter 2.2.2. Convergent validity can be shown in the quite strong correlation between the relationship performance and sales performance (Table 49).

Reliability is positively affected by the relatively high response rate and the effort respondents invested in filling in the questionnaire. The missing answers accounted for less than .1 percent. In addition, the open questions often received long answers. Internal consistency was analyzed by calculating the coefficient alphas. Relationship performance had a coefficient alpha of .67 and sales performance of .56. The quite low coefficient alphas are partly due to the small number of items the measures included. The small number of items does not fully explain the low coefficient alphas. For example, the original English version of the relationship performance measure was reported as having a coefficient alpha of .79.

[48] The validity and reliability analysis of the independent variables is presented in Sub-chapter 3.5.
[49] Construct validity refers to correspondence of construct and a measure (see e.g., Peter, 1981).

5. PERSONALITY AND KEY ACCOUNT MANAGER JOB PERFORMANCE

"How can one know anything at all about people?"
- Anna Freud

This chapter describes the results of the analysis of the key account manager questionnaire data. The objective of the research was to examine the relationship between personality traits and key account manager job performance. Before the examination of the correlation between personality traits and job performance, the correlations between job performance and background variables, like age, gender, and work experience are presented. After the results of the correlations analyses, the results of the regression analyses are exhibited. The results include numerical values of correlation statistics and graphs showing the data points and regression lines. This is followed by the comparison of the results of the current research and relevant prior research. The chapter ends with a summary and discussion of the results.

5.1. Correlation of Background Variables and Key Account Manager Job Performance

Table 50 shows the correlations between the background variables and key account manager job performance. Correlations were calculated with the overall job performance and two of its dimensions; relationship performance and sales performance. Spearman correlations were calculated between job performance and gender, education level, and number of key accounts. This was because gender, education level, and number of key accounts were not continuous variables. For the other variables, the more common Pearson correlation calculation method was used.

The correlations between job performance and age, gender, education level, customer work experience, and number of key accounts were not statistically significant. The closest to the significant levels were correlations between education level and relationship performance. Somewhat surprisingly, the correlation was negative .13, suggesting that higher education level was not a factor in key account manager performance. Also surprising was the lack of correlation between customer work experience and job performance. The results suggest that life experience or experience working with customers does not necessarily mean a better-performing key account manager.

Table 50. Correlation of Background Variables and Performance

Correlation of Background Variables and Performance

Background variable	Statistic	Relationship performance	Sales performance	Overall performance
Age (N = 172)	Pearson correlation	.03	-.06	-.02
	Significance	.7311	.4196	.7762
Gender (N = 173)	Spearman corr.	-.05	-.04	-.06
	Significance	.5502	.6231	.4600
Education (N = 173)	Spearman corr.	-.13	-.08	-.11
	Significance	.0972	.2921	.1338
Work experience with company (N = 173)	Pearson correlation	**.18**	.05	.13
	Significance	.0162	.4825	.0784
Customer work experience (N = 173)	Pearson correlation	.04	-.05	-.01
	Significance	.6197	.5059	.9088
Number of key accounts (N = 173)	Spearman corr.	.05	-.04	.02
	Significance	.5105	.5965	.8335
Well being at work (N = 173)	Pearson correlation	.02	**.24**	**.15**
	Significance	.7772	.0016	.0444

Prob. > |r| under H0: Rho = 0

The only significant correlations were between work experience with the company and relationship performance and between well-being at work and sales and overall performance. Correlation between work experience with the company and relationship performance is .18 at the significance level of <.05. Still, the work experience with the company does not have correlation with sales performance or overall performance. The results suggest that a longer work experience with the company helps key account managers to perform in relationship building and management. The work experience, on the other hand, does not contribute to sales performance aspects.

Well-being at work is positively correlated to sales performance and overall job performance. The correlation between well-being at work and sales performance is .24 at the significance level of <.01. The correlation between well being at work and overall job performance is .15 at the significance level of <.05. Unlike with work experience with the company, the problem of causality comes in to consideration with well-being at work and job performance. It could be hypothesized that well-being at work affects job performance and also vice versa. Well-being at work can improve an individual's ability and willingness to work harder. On the other hand, success in one's work can contribute to well-being at work. Success can affect the individual's salary or the compliments received from coworkers and supervisors.

5.2. Influence of Personality on the Job Performance of Key Account Managers

This sub-chapter presents the results of the key account manager research regarding the personality's effects on job performance. The results will also provide empirical evidence to evaluate, accept or reject, the research hypotheses that were postulated in Sub-chapter 2.4. The rest of this sub-chapter progresses through the five personality traits and corresponding hypotheses 1 to 5. Table 51 summarizes the previously presented research hypotheses.

Table 51. Research Hypotheses

Hypothesis 1	Extraversion is positively related to (a) sales performance (b) relationship performance (c) overall job performance
Hypothesis 2	Agreeableness is positively related to (a) relationship performance (b) overall job performance
Hypothesis 3	Conscientiousness is positively related to (a) relationship performance (b) sales performance (c) overall job performance
Hypothesis 4	Emotional stability is not related to job performance.
Hypothesis 5	Openness to experience is not related to job performance.

5.2.1. Extraversion

When the key account manager survey data was analyzed, strong correlations were found between extraversion and relationship performance and between sales performance and overall performance. From Table 52 it can be seen that all correlations are statistically significant at the <.001 level. The correlation between extraversion and relationship performance is .26. Based on this, hypothesis 1a: *Extraversion is positively related with sales performance* can be accepted. A slightly stronger correlation of .28 exists between extraversion and sales performance. Correspondingly, hypothesis 1b: *Extraversion is positively related with relationship performance* is accepted. Lastly, the correlation between extraversion and overall job performance is .31. Therefore, hypothesis 1c: *Extraversion is positively related with overall job performance* is also accepted. Based on the results, it can be concluded that extraversion is clearly a contributing factor on key account manager job performance. From the five personality traits, extraversion showed the strongest relationships with job performance.

Table 52. Correlation of Extraversion and Job Performance

Correlation (N = 172)	Relationship performance	Sales performance	Overall performance
Pearson correlation	**.26**	**.28**	**.31**
Significance	.0007	.0002	<.0001

Prob. > |r| under H0: Rho = 0

5.2.2. Agreeableness

Hypothesis 2a: *Agreeableness is positively related with relationship performance* is supported with the results of correlation analysis (Table 53). The correlation coefficient between agreeableness and relationship performance is .17 at the significance level <.05. A stronger relationship was found between agreeableness and overall job performance. The coefficient is .22 at the <.01 significance level. Therefore, the research hypothesis 2b: *Agreeableness is positively related with overall job performance* is accepted. Also an unhypothesized correlation between agreeableness and sales performance was found. The correlation between the two variables is .22, with the significance level of <.01. Agreeableness showed the third strongest correlation with job performance, after extraversion and conscientiousness.

Table 53. Correlation of Agreeableness and Job Performance

Correlation (N = 173)	Relationship performance	Sales performance	Overall performance
Pearson correlation	**.17**	**.22**	**.22**
Significance	.0396	.0038	.0041

Prob. > |r| under H0: Rho = 0

5.2.3. Conscientiousness

When the relationship between conscientiousness and job performance was analyzed, statistically strong correlations were found (Table 54). The correlation between conscientiousness and relationships performance is .25 at the <.001 level. Therefore, hypothesis 3a: *Conscientiousness is positively related with relationship performance* is accepted. The correlation between sales performance and conscientiousness was almost as strong, being .24 at the <.01 level. Based on this result, hypothesis 3b: *Conscientiousness is positively related with sales performance* is accepted. Conscientiousness has almost as strong a relationship to overall job performance as extraversion does. The correlation between conscientiousness and overall job performance is .29. This leads to the acceptance of hypothesis 3c: *Conscientiousness is positively related with overall job performance*. The correlations between conscientiousness and job performance are all relatively strong. Only the correlation between extraversion and job performance was higher. The correlation between overall job performance and extraversion was .31.

Table 54. Correlation of Conscientiousness and Job Performance

Correlation (N = 171)	Relationship performance	Sales performance	Overall performance
Pearson correlation	**.25**	**.24**	**.29**
Significance	.0009	.0011	.0001

Prob. > |r| under H0: Rho = 0

5.2.4. Emotional Stability

The analysis didn't reveal statistically significant relationships between emotional stability and job performance (Table 55). The correlation coefficients range from .07

to .09. On basis of this, hypothesis 4: *Emotional Stability is not related to job performance* is accepted.

Table 55. Correlation of Emotional Stability and Job Performance

Correlation (N = 173)	Relationship performance	Sales performance	Overall performance
Pearson correlation	.07	.09	.09
Significance	.3663	.2523	.2365

Prob. > |r| under H0: Rho = 0

5.2.5. Openness to Experience

It was hypothesized that *openness to experience is not related to job performance* (hypothesis 5). Nevertheless, the analysis (Table 56) revealed a correlation of .16 between openness to experience and relationship performance at the significance level of <.05. Sales performance and overall job performance, on the other hand, didn't show statistically significant relationships with openness to experience. The reason for the positive correlation between relationship performance and openness to experience could be explained by the key account manager tasks, where achieving customer satisfaction might sometimes require very innovative solutions. Openness to experience might help the key account manager to be more innovative.

Table 56. Correlation of Openness to Experience and Job Performance

Correlation (N = 173)	Relationship performance	Sales performance	Overall performance
Pearson correlation	**.16**	.10	.15
Significance	.0352	.2065	.0537

Prob. > |r| under H0: Rho = 0

5.3. Regression Analysis

Tables 57 through 61 present the results of the regression analysis of individual personality traits and job performance. Only the overall job performance, and not its

components relationship and sales performance, is used in the analyzes. The results show the parameter estimates, standard errors, t-values, and probabilities. Figures 35 through 39 show the scatter plots and regression lines between the personality traits and job performance.

Table 57. Regression Analysis: Extraversion and Job Performance

Regression Analysis of Extraversion and Job Performance (N = 172)				
Variable	Parameter estimate	Standard error	t Value	Prob. > |t|
Intercept	18.91	1.62	11.65	<.0001
Extraversion	.23	.05	4.30	<.0001

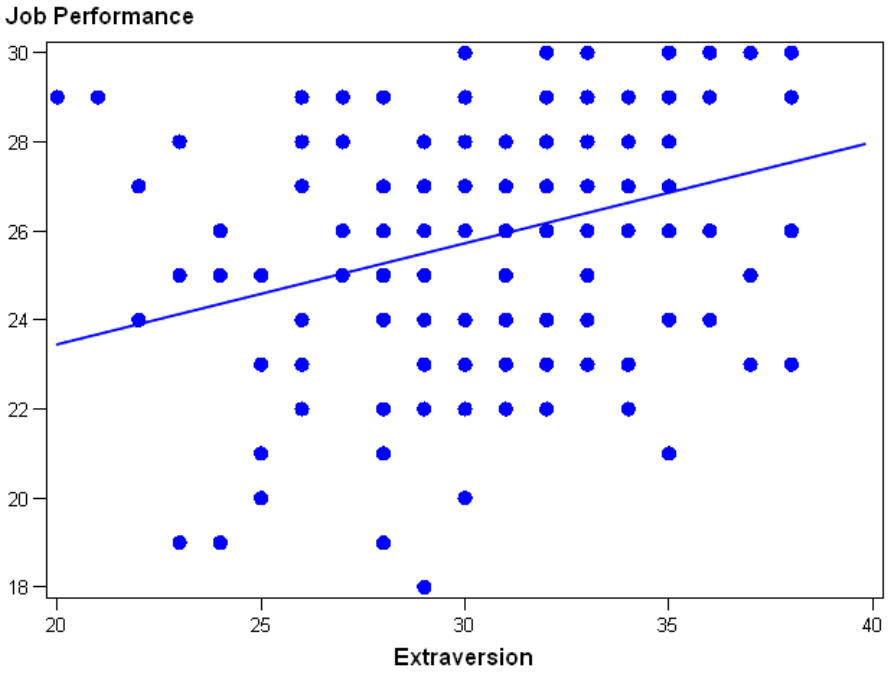


Figure 35. Scatter Plot and Regression Line of Extraversion and Job Performance

$Y = 0.227X + 18.910$

Table 58. Regression Analysis: Agreeableness and Job Performance

Regression Analysis of Agreeableness and Job Performance (N = 173)				
Variable	Parameter estimate	Standard error	t Value	Prob. > |t|
Intercept	20.75	1.74	11.91	<.0001
Agreeableness	.17	.06	2.91	.0041

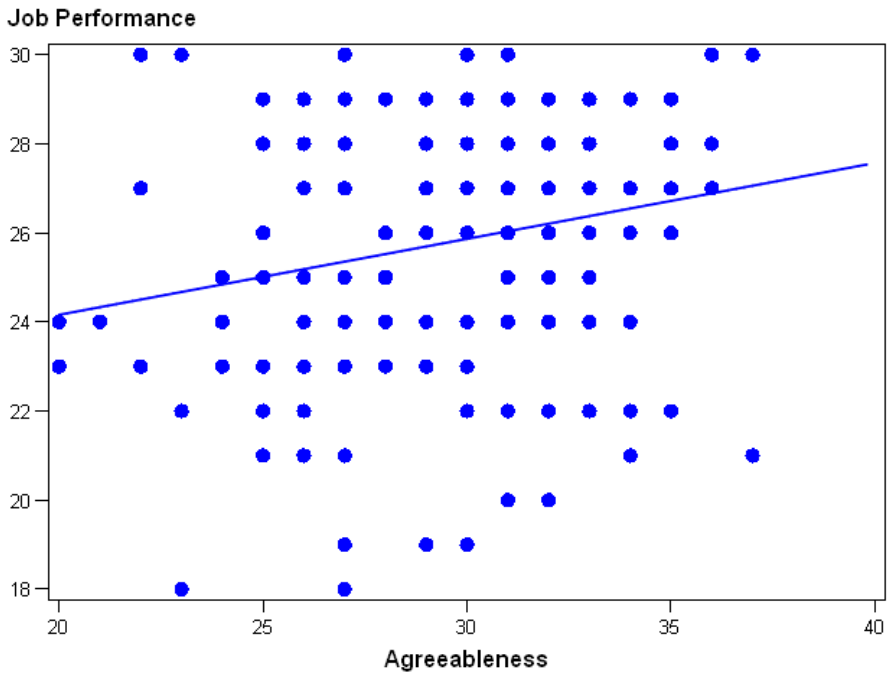


Figure 36. Scatter Plot and Regression Line of Agreeableness and Job Performance

$Y = 0.170X + 20.753$

Table 59. Regression Analysis: Conscientiousness and Job Performance

Regression Analysis of Conscientiousness and Job Performance (N = 171)				
Variable	Parameter estimate	Standard error	t Value	Prob. > |t|
Intercept	19.88	1.54	12.95	<.0001
Conscientiousness	.17	.04	3.91	.0001

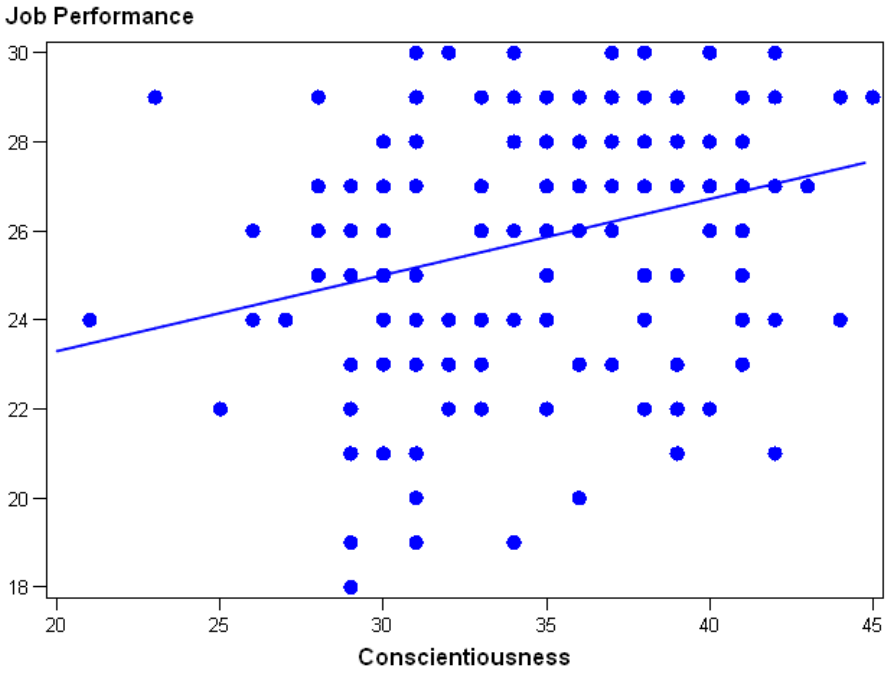


Figure 37. Scatter Plot and Regression Line of Conscientiousness and Job Performance

$Y = 0.171X + 19.883$

Table 60. Regression Analysis: Emotional Stability and Job Performance

Regression Analysis of Emotional Stability and Job Performance (N = 173)

Variable	Parameter estimate	Standard error	t Value	Prob. > |t|
Intercept	24.27	1.30	18.71	<.0001
Emotional stability	.05	.04	1.19	.2365

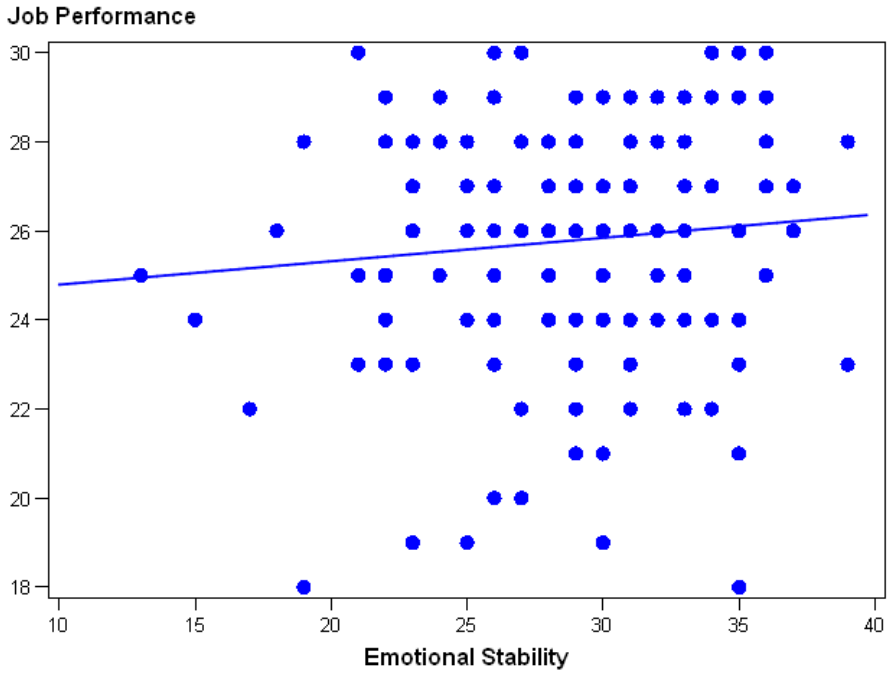


Figure 38. Scatter Plot and Regression Line of Emotional Stability and Job Performance

$Y = 0.0526X + 24.266$

Table 61. Regression Analysis: Openness to Experience and Job Performance

Regression Analysis of Openness to Experience and Job Performance (N = 173)				
Variable	Parameter estimate	Standard error	t Value	Prob. > |t|
Intercept	23.50	1.20	19.62	<.0001
Openness to experience	.10	.05	1.94	.0537

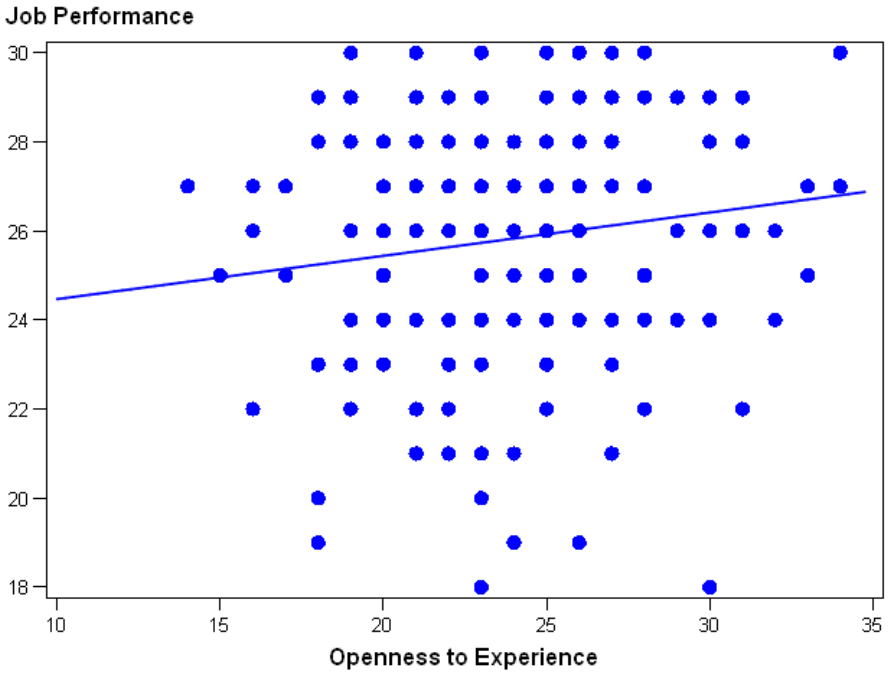


Figure 39. Scatter Plot and Regression Line of Openness to Experience and Job Performance

$$Y = 0.097X + 23.496$$

5.4. Comparison of the Results to the Existing Knowledge

In this chapter, the results of the current research are compared to results of previous research. The previous research results presented here are mainly meta-analytical studies concerning job performance of key account manager related fields. The reason for this is that no prior research results exist on the relationship between key account manager job performance and personality traits. The results are compared in personality trait order, extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience.

5.4.1. Extraversion and Job Performance

The results of the relationship between extraversion on key account manager job performance are somewhat in line with earlier research (Table 62). The previous research quite consistently show a positive relationship between key account manager related tasks and job performance. The only exception is Salgado's (1997) result, where the relationship between sales job performance and extraversion was negative. The difference compared to previous research is that the current research finds the relationships between extraversion and job performance to be much stronger. This could be explained by the job tasks of key account managers. Building trust and overall communication with the key account is essential. Extraversion may, therefore, help the key account managers perform better compared to "normal" sales people or managers.

Table 62. Extraversion and Job Performance

Item	Correlation with Extraversion
Key Account Manager Relationship Performance	.26
Key Account Manager Sales Performance	.28
Key Account Manager Job Performance	.31
Barrick and Mount (1991), Manager Job Performance	.18
Barrick and Mount (1991), Sales Job Performance	.15
Tett et al. (1991), Job Performance	.16
Salgado (1997), Manager Job Performance	.05
Salgado (1997), Sales Job Performance	-.11
Hurtz and Donovan (2000), Manager Job Performance	.12
Hurtz and Donovan (2000), Sales Job Performance	.15
Hurtz and Donovan (2000), Customer Service Job Performance	.11

Note: The results of meta-analysis of Barrick and Mount, Tett et al., Salgado and Hurtz, and Donovan are predictor, criteria and for most cases range restriction corrected correlations. The results include all job performance criterion types (e.g., job proficiency, training proficiency, and personnel data).

5.4.2. Agreeableness and Job Performance

The identified relationship between agreeableness and job performance (Table 63) was almost nonexistent in the previous research. Only Tett et al. (1991) and Hurtz and Donovan (2000) found a similar relationship between customer service job

performance and agreeableness. The Hurtz and Donovan (2000) similarity might be explained by the fact that the key account manager job is in some part a customer service job. The results of the current research are interesting because, for example, key account manager sales performance has a quite strong relationship between agreeableness, while the Salgado (1997), Barrick and Mount (1991), and Hurtz and Donovan (2000) analyses indicate that sales job performance has no relationship with agreeableness.

Table 63. Agreeableness and Job Performance

Item	Correlation with Agreeableness
Key Account Manager Relationship Performance	.17
Key Account Manager Sales Performance	.22
Key Account Manager Job Performance	.22
Barrick and Mount (1991), Manager Job Performance	.10
Barrick and Mount (1991), Sales Job Performance	.00
Tett et al. (1991), Job Performance	.33
Salgado (1997), Manager Job Performance	-.04
Salgado (1997), Sales Job Performance	.02
Hurtz and Donovan (2000), Manager Job Performance	-.04
Hurtz and Donovan (2000), Sales Job Performance	.05
Hurtz and Donovan (2000), Customer Service Job Performance	.17

Note: The results of meta-analysis of Barrick and Mount, Tett et al., Salgado and Hurtz, and Donovan are predictor, criteria and for most cases range restriction corrected correlations. The results include all job performance criterion types (e.g., job proficiency, training proficiency, and personnel data).

5.4.3. Conscientiousness and Job Performance

Table 64 shows the research results concerning conscientiousness and job performance. The positive relationship between the constructs was expected. The results of the current research are perfectly in line with those of previous research. In some cases, the identified correlations were slightly higher than the correlations found in the previous research (Salgado, 1997; Tett et al., 1991)

Table 64. Conscientiousness and Job Performance

Item	Correlation with Conscientiousness
Key Account Manager Relationship Performance	.25
Key Account Manager Sales Performance	.24
Key Account Manager Job Performance	.29
Barrick and Mount (1991), Manager Job Performance[50]	.22
Barrick and Mount (1991), Sales Job Performance	.23
Tett et al. (1991), Job Performance	.18
Salgado (1997), Manager Job Performance	.16
Salgado (1997), Sales Job Performance	.18
Hurtz and Donovan (2000), Manager Job Performance	.17
Hurtz and Donovan (2000), Sales Job Performance	.26
Hurtz and Donovan (2000), Customer Service Job Performance	.25

Note: The results of meta-analysis of Barrick and Mount, Tett et al., Salgado and Hurtz, and Donovan are predictor, criteria and for most cases range restriction corrected correlations. The results include all job performance criterion types (e.g., job proficiency, training proficiency, and personnel data).

5.4.4. Emotional Stability and Job Performance

Table 65 shows the research results between emotional stability and job performance. Salgado (1997) sales job performance and Tett et al. (1991) job performance were the results that differed from the rest. Salgado (1997) finds a small negative correlation and Tett et al. (1991) find a stronger positive relationship. In general, no strong relationships were found between emotional stability and job performance either in the current research or in the previous ones.

[50] Mount and Barrick (1995) re-examined conscientiousness's relationship with job performance. They found that the correlation would probably be higher than their original research suggested. The revised correlation between conscientiousness and job performance, according to Mount and Barrick is .31.

Table 65. Emotional Stability and Job Performance

Item	Correlation with Emotional Stability
Key Account Manager Relationship Performance	.07
Key Account Manager Sales Performance	.09
Key Account Manager Job Performance	.09
Barrick and Mount (1991), Manager Job Performance	.08
Barrick and Mount (1991), Sales Job Performance	.07
Tett et al. (1991), Job Performance	.22
Salgado (1997), Manager Job Performance	.12
Salgado (1997), Sales Job Performance	-.07
Hurtz and Donovan (2000), Manager Job Performance	.12
Hurtz and Donovan (2000), Sales Job Performance	.13
Hurtz and Donovan (2000), Customer Service Job Performance	.12

Note: The results of meta-analysis of Barrick and Mount, Tett et al., Salgado and Hurtz, and Donovan are predictor, criteria and for most cases range restriction corrected correlations. The results include all job performance criterion types (e.g., job proficiency, training proficiency, and personnel data).

5.4.5. Openness to Experience and Job Performance

Table 66 presents the research results concerning job performance and openness to experience. The most surprising result of the current research was the relationship between openness to experience and key account manager job performance (in particular, the relationship between key account manager relationship performance and openness to experience, which was statistically significant). Again, only in Tett et al. (1991) and Hurtz and Donovan (2000) results did customer service job performance have similar relationships between openness to experience. Tett et al. (1991) seem to find relatively strong relationships between all the personality traits and job performance, so it clearly stands out from all the rest of the research results. The Hurtz and Donovan (2000) identification of relationship between openness to experience and customer service job performance is a second time where a similarity is found between customer service job performance and key account manager job performance. This might give evidence of a similarity between customer service job and key account manager job.

Table 66. Openness to Experience and Job Performance

Item	Correlation with Openness to Experience
Key Account Manager Relationship Performance	.16
Key Account Manager Sales Performance	.10
Key Account Manager Job Performance	.15
Barrick and Mount (1991), Manager Job Performance	.08
Barrick and Mount (1991), Sales Job Performance	-.02
Tett et al. (1991), Job Performance	.27
Salgado (1997), Manager Job Performance	.03
Salgado (1997), Sales Job Performance	N/A
Hurtz and Donovan (2000), Manager Job Performance	-.03
Hurtz and Donovan (2000), Sales Job Performance	.04
Hurtz and Donovan (2000), Customer Service Job Performance	.15

Note: The results of meta-analysis of Barrick and Mount, Tett et al., Salgado and Hurtz, and Donovan are predictor, criteria and for most cases range restriction corrected correlations. The results include all job performance criterion types (e.g., job proficiency, training proficiency, and personnel data).

5.4.6. Summary of the Results and Discussion

In this sub-chapter the results of the research are summarized and discussed. The following table (Table 67) summarizes the results of the research. The table also indicates which results are supported by the previous research (Barrick and Mount, 1991; Hurtz and Donovan, 2000; Salgado, 1997; Tett et al., 1991), partly supported, and also which results are totally new. The results regarding relationship performance are all classified as new results. This means that in these cases there haven't actually been any previous research that the current results could be compared with. The only contradicting results were the relationships between agreeableness and job performance. Only Tett et al. (1991) and Hurtz and Donovan (2000) found a relationship between agreeableness and job performance. It is useful to note that the Tett et al. (1991) results are all above .16 (averaging .23), and that they clearly differ from all the other results. In addition, the Hurtz and Donovan (2000) results identified the relationship only with regards to customer service job performance and not the manager or sales performances.

Table 67. Summary of the Results

Result of the study	Supported	Partly supported	Contra-dicted	New result
Significant, positive correlation between:				
Extraversion and sales performance		X		
Extraversion and relationship performance				X
Extraversion and job performance		X		
Agreeableness and sales performance			X	
Agreeableness and relationship performance				X
Agreeableness and job performance			X	
Conscientiousness and sales performance	X			
Conscientiousness and relationship performance				X
Conscientiousness and job performance	X			
Openness to experience and relationship performance				X
No significant correlation between:				
Emotional stability and job performance	X			

As the Table 52 shows, extraversion was found to have a statistically strong correlation with all types of job performance. This result was partly supported by previous research (see Table 62). The same relationships were identified, but the strength of the relationships was lower. The reason for the strong relationships in the key account manager context might be the unique job description. The key account manager job requires an outgoing personality. Managing a key account team and communicating with different parties in own and customer organization are just some of the job tasks that might benefit from being more extravert. Ability to identify and uncover actual customer needs may also benefit from extraversion. In some cases, being extravert might affect the likeability of a person; this may help, for example, in sales situations.

The previous research generally didn't find relationships between agreeableness and job performance (Barrick and Mount, 1991; Hurtz and Donovan, 2000; Salgado, 1997; Tett et al., 1991). In the key account manager context, agreeableness showed statistically significant correlations with all the measured aspects of job performance.

In getting along with all different stake holders, being agreeable can certainly be helpful. Therefore, the correlation with relationship performance and agreeableness is easily explained. The strong relationship between agreeableness and sales performance was one of the most surprising results of the current study. In the previous research, that relationship was consistently found to be nonexistent. It could be that the sales process and sales tasks in the key account management context differ from those in the more straightforward sales jobs. The longer customer relationships with key account management might require a different personality to perform in sales tasks. The ability to sell to the same customers time after time might require a more agreeable person than, for example, selling to new customers does.

Conscientiousness seems to play a strong role in job performance across professions according to all the previous research (Barrick and Mount, 1991; Hurtz and Donovan, 2000; Salgado, 1997; Tett et al., 1991). It is, therefore, no surprise that the current study revealed the same results. The typical workplace characteristics of a conscientious person include tidy, well organized, reliable, and hardworking. A logical assumption is that these characteristics help in performing in a job. It might be possible that too-high scores of conscientiousness might start hurting the job performance. Too organized, perfectionist, or too neat a worker might have difficulties in certain situations. When this reasoning is followed, the linear relationship assumed by the correlation analysis becomes questionable. An exponential or Gaussian model with an optimal value might become more appropriate to explain the relationship between a personality trait and job performance.

In this research, emotional stability didn't show statistically significant relationships with the aspects of job performance. Similar results were found in the previous research (Barrick and Mount, 1991; Hurtz and Donovan, 2000; Salgado, 1997). Some contradicting results emerged in the customer work specific study by Barrick et al. (1998). They found that some customer jobs, like bank teller or cashier at a supermarket, might benefit from emotional stability. Also Tett et al. (1991) identified a relationship between emotional stability and job performance.

Openness to experience was found to have a statistically significant relationship with relationship performance. From among many studies the only support for this relationship comes from the Tett et al. (1991) meta-analytical study. An explanation for this unexpected result could be that sometimes in key account manager work the customers' problems need to be solved in new, imaginative, and unorthodox ways.

In most of the cases, the results of the current study are supported by previous research. The replication of the research with the use of actual performance data would provide more evidence to validate the results. A good way to repeat the research would be doing it by obtaining objective measurements of job performance. This might be possible to achieve by cooperating with some large companies employing a sufficient number of key account managers. The sales performance component could be measured by the use of actual sales data of individual key account managers. Relationship performance would be harder to measure. It is possible that some key account retention data or key account satisfaction measures could be used to obtain reliable measures.

6. CONCLUSIONS

"…now, think carefully, Jack.
Would you do the whole thing all over again,
Knowing what you know now,
knowing what you knew then?
And he smiled, like the old Pumpkin King that I knew,
then turned and asked softly of me, wouldn't you?"

- Nightmare Before Christmas

"Soft" issues concerning KAM and key account managers have received little attention from academia (Guenzi et al., 2007; Zupancic, 2008). This research addresses the soft issues by examining the key account managers' personalities. More specifically, the purpose of this research is to identify the relationship between personality traits and key account manager job performance. The research question was answered by a quantitative survey research of 180 Finnish key account managers. Before the survey research, the relevant constructs were defined, and the necessary measuring instruments were identified and developed.

This dissertation is divided to six chapters. Chapter 1 identifies the backgrounds of the research, research philosophies, and methods. The research question is also identified in Chapter 1. Chapter 2 addresses the relevant theoretical basis for the research. Theories of KAM, key account manager roles and skills, key account manager job performance, personality, and personality traits are covered. After the theoretical background, Chapter 2 ends with the postulation of research hypotheses. Chapter 3 describes research methods used in the development of a personality inventory, and also describes the whole process of personality inventory development. After creating a theoretical model, statistical analysis was used to develop and finally validate the inventory. Sample sizes used in the pilot model, final model and validation are N = 119, N = 347, and N = 255, respectively. The finalized model shows good validity and internal reliability. Some evidence of the external validity is also shown.

In Chapter 4, a profile of the Finnish key account manager is drawn on the basis of the key account manager survey. It was found that the key account manager profile was well in line with the theoretical model that is described in Chapter 2. Chapter 4 describes different research methods, and provides a rationale for the selected research methods for the key account manager research. In Chapter 4, the independent, dependent, and control variables that were used in the research are also introduced. Chapter 5 presents the results of the key account manager research. The research hypotheses are evaluated with the help of the empirical survey research results. This final chapter describes the theoretical contribution of the research, its theoretical and managerial implications, as well as the need and recommendations for future research.

6.1. Theoretical Contribution of the Research

The theoretical contribution of this research can be divided into inventory development and relationship identifications. With this division in mind, the remainder of this sub-chapter includes the following two parts: Firstly, the personality inventory development is presented. Secondly, the relationships between personality traits and key account manager job performance are identified.

The first important theoretical contribution of this research is the short Finnish FFM personality assessment inventory. The inventory consists of 40 items for the five personality traits: eight items each for extraversion, agreeableness, and emotional stability, nine items for conscientiousness and, finally, seven items for openness to experience. The inventory is intended for use in statistical research. In the analysis, evidence of the validity of the inventory was found. The inventory's reliability is comparable to the commercial short English-language FFM versions. Even with the validity for statistical research, the developed inventory, as with any short personality inventory, it is not suggested for use in in-depth analysis of single individuals.

The second theoretical contribution comes from the clarification of the relationship between personality traits and key account manager job performance. The extraversion trait was found to have the strongest relationship with key account manager job performance. Prior meta-analytical studies have shown a positive relationship between performance in sales work and extraversion (Barrick and Mount, 1991; Hurtz and Donovan, 2000; Salgado, 1997; Tett et al., 1991). The current research further confirms this, and identifies a link between extraversion and

relationship performance. One notable result of the research was the strengths of the relationships between extraversion and job performances (sales performance, relationship performance, and overall job performance). The correlations were at the .30 levels, which are notably higher than the results of the earlier research.

The agreeableness trait is also found to have a statistically significant, positive relationship with key account manager job performance and its two sub components. The relationship is not as strong as the relationships between key account manager job performance and extraversion or between job performance and conscientiousness. Previous research generally fails to find a relationship between job performance and agreeableness. The reason, why a relationship between key account manager performance and agreeableness was found, might be the unique job profile and tasks of the key account manager, where getting along with very different stakeholders is essential. These stakeholders include, for example, the individual's own organization as well as members of the customer and supplier organizations.

Previous meta-analytical research has consistently shown a positive relationship between conscientiousness and job performance (Barrick and Mount, 1991; Hurtz and Donovan, 2000; Salgado, 1997; Tett et al., 1991). This research confirms that relationship. The key account manager job performance and its sub-components (relationship performance and sales performance) all have statistically significant correlations with conscientiousness at the significance level of <.001.

Another result that was expected on the basis of earlier research was the nonexistent relationship with key account manager job performance and emotional stability (Barrick and Mount, 1991; Hurtz and Donovan, 2000; Salgado, 1997). It is possible that people with low emotional stability will have a strong tendency not to apply or qualify for a key account manager position. This might bias the results, especially in case of non-linear relationships between emotional stability and key account manager job performance. An example of this would be a relationship where a certain threshold score of emotional stability is needed to perform well in a key account manager's job.

Surprisingly, the openness to experience trait exhibits a statistically significant, positive correlation with relationship performance. It might be because the relationship management sometimes demands very innovative and imaginative approaches. In previous meta-analytical research, a relationship has been found mainly between customer service job and openness to experience, but not consistently between sales performance and openness to experience or between

manager performance and openness to experience (Barrick and Mount, 1991; Hurtz and Donovan, 2000; Salgado, 1997; Tett et al., 1991).

6.2. Managerial Implications

This research has shown that in order to build a successful key account management program a company needs to concentrate on finding the right people (with regards to their personality). From all the analyzed factors, the strongest relationships with key account manager job performance were with certain personality traits. Moreover, the result showed that age, gender, education level, customer work experience, or the number of key accounts didn't have a significant effect on the job performance. Work experience with the current company showed only a weak positive correlation with relationship performance and no correlation with sales performance. In addition to personality, the only other variable that sales performance was linked to was well-being at work. However, in this case it is not clear whether sales performance causes well-being at work or whether it is the other way around. All in all, it is evident that companies should pay a great deal of attention to the employee selection processes personality-wise. The most important personality traits the companies should look for in potential employees are extraversion, conscientiousness, and agreeableness.

In addition to improving the employee selection process, the companies could concentrate their training efforts on activities that might encourage behaviors that mimic the natural responses of certain personality traits. Employees could, for example, be trained to be more careful with details, more socially open, polite, or concerned with other people's feelings or interests. Some behaviors could be described in the work manuals, and should be introduced to new employees in their orientation phase. Companies could create measures on the basis of some of the desired behaviors, and, for example, base some part of employee compensation on these measures.

6.3. Limitations of the Research

The major limitation of the research is that the sample consists of individuals from only one country. Even though the profile of Finnish key account managers was

found to be in line with the theoretical models presented in Western literature, it is possible that some tasks or requirements are more important in a Finnish context than, for example, in the United States.

Some of the personality theorists consider personality traits to be universal (McCrae and Costa, 2007). However, what may limit the generalizability of the results are the possible different effects of personality traits in job performance in different cultures or countries. It could be that in some cultures extraversion or emotional stability is more important in order to achieve good job performance. In other cultures, agreeableness could be the key trait. These possible cultural differences could also limit the possibility to generalize the results.

6.4. Suggestions for Future Research

As mentioned in the previous sub-chapter, the necessary traits for key account manager performance could easily vary across cultures. It would be interesting to see comparative studies where the success factors for key account manager job performance are compared in different cultures or countries. It is clear that cultural differences exist, but it is unclear as to whether they have effects on the required personalities, behaviors, or skills of key account managers.

The definition of key account manager job performance used in this research is not comprehensive. Compromises had to be taken in order to achieve a widely applicable definition of key account manager job performance. For use in assessing individuals, a more comprehensive model should be created. Emphasis should also be paid to valid and reliable measures that could be used in the research.

With self-reporting respondents, the research results may have many possible biases. Even when the results are supported by previous research and logical reasoning, the replication of the research with actual performance data would give more valuable evidence on this research issue. A good way to repeat the research would be doing it by obtaining objective measures of sales performance. This might be possible to achieve by cooperating with some larger companies employing a large number of key account managers. Relationship performance would be harder to measure. The length of a key account relationship or key account satisfaction measures could be used to obtain useful data.

One could assess the key account manager relationship performance by interviewing the key account itself. This line of research opens interesting possibilities, starting with the definition of key account manager performance. What do key accounts consider to be a high performing key account manager? What are the expected and desired personal qualities, skills, and behaviors? An interesting situation would be to examine the self-reports of key account manager performance and the key accounts' evaluations of the same manager's performance.

In the relationships analysis of certain personality traits (like agreeableness) and job performance, the hypothesis of threshold values was brought up. It could be possible that in some traits a threshold value exists, after which the performance level is raised directly to certain level and values below the threshold would correspond to a low level of performance. Traits like extraversion or emotional stability might exhibit this kind of behavior. One challenge that would probably arise when this theory is investigated is the difficulty to obtain relevant data. It might be that individuals with a low score in emotional stability never get accepted for the job or don't manage to hold on to the job for a long time.

On the high end of a personality scale, something similar to thresholds might be experienced; too high scores might lower the work performance. While high conscientiousness is clearly related to better job performance, an individual who is too much of a perfectionist might have difficulties in certain job-related situations. Similarly, an excessively extravert person might be considered as an annoyance instead of an open and friendly person. Both of these issues (thresholds and negative effects of higher scores) make the linear model assumed by correlation analysis questionable. Suggestion for further research would be the analysis of the relationships between personality traits and job performance with models other than linear, such as exponential or Gaussian.

Another interesting research focus could be the profiling of the well performing key account manager. Do the best performing key account managers share a common combination of traits? Cluster analysis might be a useful tool in analyzing this hypothesis. A profile of an average key account manager could also prove to be an interesting topic for research. Does the average or normal key account manager differ from other managers or from the rest of the working population? This result might shed light on possible selection effects. Do only certain kinds of people apply, get hired, and remain in the key account manager profession.

It would be beneficial to the research community to know more of the personal aspects that influence key account manager job performance. The current study concentrates only on the Five Factor Model of personality affecting job performance. Effects of motivation, intelligence, locus of control, ability, or narrow personality traits concerning job performance could be found beneficial to analyze.

The final suggested avenue of future research is the interaction effects of certain variables on personality's relationship with job performance. It is likely that some of the variables, like motivation, well-being at work, physical, or psychological well-being have interaction effects on the relationship between personality traits and job performance. Even some of the personality traits may have interaction effects on other traits' relationships with job performance.

REFERENCES

Abbratt, R. and Kelly, P. (2002), "Customer-supplier partnerships: Perceptions of a successful key account management programs", *Industrial Marketing Management*, Vol. 31(5), pp. 467-476.

Allport, G. (1937), *Personality: A Psychological Interpretation*, Henry Holt and Company, New York, New York, United States, 588 p.

Anderson, J. and Gerbing, D. (1998), "Structural equation modeling in practice: a review and recommended two-step approach", *Psychological Bulletin*, Vol. 103(3), pp. 411-423.

Anderson, J., Håkansson, H., and Johanson, J. (1994), "Dyadic business relationships within a business network context", *Journal of Marketing*, Vol. 58(4), pp. 1-15.

Anderson, J., Narus, J., and Narayandas, D. (2009), *Business Market Management, Understanding, Creating, and Delivering Value*, 3rd ed., Pearson Education, Upper Saddle River, New Jersey, United States, 470 p.

Arndt, J. (1985), "On making marketing science more scientific: role of orientations, paradigms, metaphors, and puzzle solving", *Journal of Marketing*, Vol. 49(3), pp. 11-23.

Ashton, M. (1998), "Personality and job performance: the importance of narrow traits", *Journal of Organizational Behavior*, Vol. 19(3), pp. 289-303.

Ashton, M. and Lee, K. (2008), "The HEXACO model of personality structure", pp. 239-260, In Boyle, G., Matthews, G. and Saklofske, D. (Eds.), *The SAGE Handbook of Personality Theory and Assessment, Vol 2: Personality Measurement and Testing*, SAGE Publications Limited, London, United Kingdom, 717 p.

Ashton, M. and Lee, K. (2009), "An investigation of personality types within the HEXACO personality framework", *Journal of Individual Differences*, Vol. 30(4), pp. 181-187.

Ashton, M. and Lee, K. (2010), "Empirical, theoretical, and practical advantages of the HEXACO model of personality structure", *Personality and Social Psychology Review*, Vol. 11(2), pp. 150-166.

Bailey, C. (1983), *The Measurement of Job Performance*, Gower Publishing Company Limited, Hampshire, United Kingdom, 238 p.

Ballard, R. (1992), "Short forms of the Marlowe-Crowne social desirability scale", *Psychological Reports*, Vol. 71(3), pp. 1155-1160.

Barger, S. (2002), “The Marlowe-Crowne affair: Short forms, psychometric structure, and social desirability”, *Journal of Personality Assessment*, Vol. 79(2), pp. 286-305.

Barling, J. and Beattie, R. (1983), “Self-efficacy beliefs and sales performance”, *Journal of Organizational Behavior Management*, Vol. 5(1), pp. 41-51.

Barrick, M. and Mount, M. (1991), "The Big Five personality dimensions and job performance: A meta-analysis”, *Personnel Psychology*, Vol. 44(1), pp. 1-26.

Barrick, M., Mount, M., and Stewart, G. (1998), “Five-factor model of personality and performance in jobs involving interpersonal interactions”, *Human Performance*, Vol. 11(2/3), pp. 145-165.

Barrick, M., Piotrowski, M., and Stewart, G. (2002), “Personality and job performance: test of mediating effects of motivation among sales representatives”, *Journal of Applied Psychology*, Vol. 87(1), pp. 43-51.

Benson, L. (1946), “Mail surveys can be valuable”, *The Public Opinion Quarterly*, Vol. 10(2), pp. 234-241.

Bentler, P. (1990), “Comparative fit indexes in structural models”, *Psychological Bulletin*, Vol. 107(2), pp. 238-246.

Bentler, P. and Bonnet, D. (1980), "Significance tests and goodness of fit in the analysis of covariance structures," *Psychological Bulletin*, Vol. 88 (3), pp. 588-606.

Beretvas, N., Meyers, J., and Leite, W. (2002), “A reliability generalization study of the Marlowe-Crowne social desirability scale”, *Educational and Psychological Measurement*, Vol. 62(4), pp. 570-589.

Bingham, F. Jr. and Gomes, R. (2001), *Business Marketing*, 2nd ed., NTC/Contemporary Publishing Group, Incorporated, Chicago, Illinois, United States, 425 p.

Blumberg, B., Cooper, D., and Schindler, S. (2008), *Business Research Methods, Second European Edition*, McGraw-Hill Education, Berkshire, United Kingdom, 685 p.

Boles, K., Yoo, T-Y., Ebacker, A., Lee, K., and Ashton, M. (2004), “Validity studies: Psychometric properties of scores of the French and Korean versions of the HEXACO personality inventory”, *Educational & Psychological Measurement*, Vol. 64(6), pp. 992-1006.

Bollen, K. and Lennox, R. (1991), “Conventional wisdom on measurement: A structural equation perspective”, *Psychological Bulletin*, Vol. 110(2), pp. 305-314.

Borgatta, E. (1968), "Trait and persons", pp. 510-528, In Borgatta, E. and Lambert, W. (Eds.), *Handbook of Personality Theory and Research*, Rand McNally & Company, Chicago, Illinois, United States, 1232 p.

Brehmer, P.-O. and Rehme, J. (2009), "Proactive and reactive: drivers for key account management programmes", *European Journal of Marketing*, Vol. 43(7/8), pp. 961-984.

Browne, M. and Cudeck, R. (1993), "Alternative ways of assessing model fit", pp. 136-162, In Bollen, K. and Long, J. (Eds.), *Testing Structural Equation Models*, SAGE Publications Incorporated, Newbury Park, California, United States, 308 p.

Bryman, A. and Cramer, D. (2005), *Quantitative Data Analysis with SPSS 12 and 13: A Guide for Social Scientist*, Routledge, Hove, East Sussex, United Kingdom, 368 p.

Bucklin, L. and Sengupta, S. (1993), "Organizing successful co-marketing alliances", *Journal of Marketing*, Vol. 57(2), pp. 32-46.

Burnham, J. (1968), "Historical background for the study of personality", pp. 3-81, In Borgatta, F. and Lambert, W. (Eds.), *Handbook of Personality Theory and Research*, Rand McNally & Company, Chicago, Illinois, United States, 1232 p.

Burns, A. and Bush, R. (2010), *Marketing Research*, 6th ed., Pearson Education, Incorporated, Upper Saddle River, New Jersey, United States, 695 p.

Buttle, F. (2009), *Customer Relationship Management, Concepts and Technologies*, Elsevier Limited, Oxford, United Kingdom, 500 p.

Byrne, B. (2001), *Structural Equation Modeling with AMOS, Basic Concepts, Applications, and Programming*, Lawrence Erlbaum Associates, Incorporated, Mahwah, New Jersey, United States, 338 p.

Calder, B., Phillips, L., and Tybout, A. (1982), "The concept of external validity", *Journal of Consumer Research*, Vol. 9(3), pp. 240-245.

Capon, N. (2001), *Key Account Management and Planning*, The Free Press, New York, New York, United States, 462 p.

Carmines, E. and Zeller, R. (1979), *Reliability and Validity Assessment*, SAGE Publications, Incorporated, Beverly Hills, California, United States, 71 p.

Cattell, R. and Cattell, H. (1995), "Personality structure and the new fifth edition of the 16PF", *Educational and Psychological Measurement*, Vol. 55(6), pp. 926-937.

Cattell, H. (2004), "The sixteen personality factor (16PF) questionnaire", pp. 39-50, In Hersen, M. (Ed.), *Comprehensive Handbook of Psychological Assessment: Personality Assessment*, Vol. 2, John Wiley and Sons, Incorporated, Hoboken, New Jersey, United States, 688 p.

Chamorro-Premuzic, T. (2007), *Personality and individual differences*, Blackwell Publishing, Malden, Massachusetts, United States, 195 p.

Charcot, J. (1877), "Lectures on the Diseases of the Nervous System", Delivered at La Salpêtrière, 2nd ed., (translated by Seigerson, G), *The American Journal of the Medical Sciences*, Vol. 74(148), pp. 532-534.

Cheverton, P. (2004), *Key Account Management, A Complete Action Kit of Tools and Techniques for Achieving Profitable Key Supplier Status*, 3rd ed., Kogan Page, London, United Kingdom, 356 p.

Cheverton, P. (2008), *Key Account Management, Tools and Techniques for Achieving Profitable Key Supplier Status*. 4th ed., Kogan Page, London, United Kingdom, 379 p.

Church, T. and Burke, P. (1994), "Exploratory and confirmatory test of the Big Five and Tellegen's three and four-dimensional models", *Journal of Personality and Social Psychology*, Vol. 66(1), pp. 93-114.

Cole, D. (1987), "Utility of confirmatory factor analysis in test validation research", *Journal of Consulting and Clinical Psychology*, Vol. 55(4), pp. 584-594.

Comte, A. (1865), *General View of Positivism* (translated by Bridger, J. from Comte, A. (1851), *Treatise on Positive Polity, Vol 1.)*, Trübner and Company, London, United Kingdom, 426 p.

Costa, P. and McCrae, R. (2006), *Revised NEO Personality Inventory (NEO PI-R) Manual (UK Edition)*, Hogrefe, Oxford, United Kingdom, 80 p.

Costa, P., McCrae, R., and Jonsson, F. (2002), "Validity and utility of the revised NEO personality inventory: Examples from Europe", pp. 61-77, In Raad, B and Perugini, M. (Eds.), *Big Five Assessment*, Hogrefe & Huber Publishers, Kirkland, Washington, United States, 491 p.

Costello, A. and Osborne, J. (2005), "Best practices in exploratory factor analysis: four recommendations for getting the most from your analysis", *Practical Assessment, Research & Evaluation*, Vol. 10(7), pp. 1-9.

Cronbach, L. (1951), "Coefficient alpha and the internal structure of tests", *Psychometrika*, Vol. 16(3), pp. 297-334.

Crowne, D. and Marlowe, D. (1960), "A new scale of social desirability independent of psychopathology", *Journal of Consulting Psychology*, Vol. 24(4), pp. 349-354.

Davies, I. and Ryals, L. (2009), "A stage model for transitioning to KAM", *Journal of Marketing Management*, Vol. 25(9-10), pp. 1027-1048.

Donaldson, S. and Grant-Vallone, E. (2002), "Understanding self-report bias in organizational behavior research", *Journal of Business and Psychology*, Vol. 17(2), pp. 245-260.

Dwyer, F., Schurr, P., and Oh, S. (1987), "Developing buyer-seller relationships", *Journal of Marketing*, Vol. 51(2), pp. 11-27.

Edwards, P., Roberts, I., Clarke M., DiGuiseppi, C., Wentz, R., Kwan, I., Cooper, R., Felix, L., and Pratap, S. (2009), "Methods to increase response to postal and electronic questionnaires", *Cochrane Database of Systematic Reviews*, Issue 3. Art. No.: MR000008. DOI: 10.1002/14651858. MR000008.pub4.

Engler, B. (2009), *Personality Theories, An Introduction*, 8th ed., Wadsworth, Belmont, California, United States, 554 p.

Ford, D. (1980), "The development of buyer-seller relationship in industrial markets", *European Journal of Marketing*, Vol. 14(5/6), pp. 339-353.

Freud, S. (1905), "Three essays on the theory of sexuality", *Standard Edition*, Vol. 7, pp. 135-243.

Freud, S. (1927), *The Ego and the Id*. (translated by Riviere, J. from Freud, S. (1923) *Das Ich und das Es*) Hogarth Press, Institute of Psycho-Analysis, London, United Kingdom, 88 p.

Fruyt, F., McCrae, R., Szirmak, Z., and Nagy, J. (2004), "The Five-Factor Personality Inventory as a measure of the Five-Factor Model: Belgian, American, and Hungarian comparisons with the NEO-PI-R", *Assessment*, Vol. 11(3), pp. 207-215.

Furnham, A. (1992), *Personality at Work, The Role of Individual Differences in the Workplace*, Routledge, London, United Kingdom, 423 p.

Gerbing, D. and Anderson, J. (1988), "An updated paradigm for scale development incorporating unidimensionality and its assessment", *Journal of Marketing Research*, Vol. 25(2), pp. 186-192.

Goldberg, L. (1981), "Language and individual differences: The search for universals in personality lexicons", pp. 141-165, In Wheeler, L. (Ed.), *Review of Personality and Social Psychology*, Vol. 2, SAGE Publishing, Incorporated, Beverly Hills, California, United States, 295 p.

Goldberg, L. (1999), "A broad-bandwidth, public-domain, personality inventory measuring the lower-level facets of several five-factor models", pp. 7-28, In Mervielde, I., Deary, I., De Fruyt, F., and Ostendorf, F. (Eds.), *Personality Psychology in Europe*, Vol. 7, Tilburg University Press, Tilburg, The Netherlands, 399 p.

Goldberg, L., Johnson, J., Eber, H., Hogan, R., Ashton, M., Cloninger, C., and Gough, H. (2006), "The International Personality Item Pool and the future of public-domain personality measures", *Journal of Research in Personality*, Vol. 40, pp. 84-96.

Grønhaug, K., Henjesand, I., and Koveland, A. (1999), “Fading relationships in business markets: an exploratory study”, *Journal of Strategic Marketing*, Vol. 7(3), pp. 175-190.

Guenzi, P., Pardo, C., and Georges, L. (2007), “Relational selling strategy and key account managers’ relational behaviors: An exploratory study”, *Industrial Marketing Management*, Vol. 36(1), pp. 121 -133.

Guesalaga, R. and Johnston, W. (2010), “What's next in key account management research? Building the bridge between the academic literature and the practitioners' priorities”, *Industrial Marketing Management*, Article in press, available online 8th February 2010, pp. 1-6.

Hair, J. Jr., Black, W., Babin, B., and Anderson, R. (2010), *Multivariate Data Analysis, A Global Perspective*, 7th ed., Pearson Education, Incorporated, Upper Saddle River, New Jersey, United States, 800 p.

Hair, J. Jr., Black, W., Babin, B., Anderson, R., and Tatham, R. (2006), *Multivariate Data Analysis*, 6th ed., Pearson Education, Incorporated, Upper Saddle River, New Jersey, United States, 899 p.

Hannah, G. (1997), “From transactions to relationships: study reveals the NAMs fundamental challenges”, *NAMA Journal*, Vol. 33(Spring), pp. 4-6.

Hatcher, L. (1994), *A Step-by-Step Approach to Using SAS for Factor Analysis and Structural Equation Modeling*. SAS Institute Incorporated, Cary, North Carolina, United States, 588 p.

Heberlein, T. and Baumgartner, R. (1978), “Factors affecting response rates to mailed questionnaires: a quantitative analysis of the published literature”, *American Sociological Review*, Vol. 43(4), pp. 447-462.

Heuchert, J., Parker, W., Stumpf, H., and Myburgh, C. (2000), “The Five-Factor Model of personality in South African college students”, *American Behavioral Scientist*, Vol. 44(1), pp. 112-125.

Higgins, D., Peterson, J., Pihl, R., and Lee, A. (2007), “Prefrontal cognitive ability, intelligence, Big Five personality and the prediction of advanced academic and workplace performance”, *Journal of Personality and Social Psychology*, Vol. 93(2), pp. 298-319.

Hirschman, E. (1986), "Humanistic enquiry in marketing research: philosophy, method and criteria", *Journal of Marketing Research*, Vol. 23(3), pp. 237-249.

Homburg, C., Workman, J. Jr., and Jensen, O. (2000), “Fundamental changes in marketing organization: The movement toward a customer-focused organizational structure”, *Journal of the Academy of Marketing Science*, Vol. 28(4), pp. 459-478.

Homburg, C., Workman, J., and Jensen, O. (2002), "A configurational perspective on key account management", *Journal of Marketing*, Vol. 66(2), pp. 38-60.

Hong, R., Paunonen, S., and Slade, H. (2008), "Big Five personality factors and the prediction of behavior: A multitrait-multimethod approach", *Personality and Individual Differences*, Vol. 45(2), pp. 160-166.

Hooper, D., Coughlan, J., and Mullen, M. (2008), "Structural equation modeling: Guidelines for determining model fit", *Electronic Journal of Business Research Methods*, Vol. 6(1), pp. 53-60.

Hothersall, D. (1995), *History of Psychology*, 3rd ed., McGraw-Hill Incorporated, New York, New York, United States, 610 p.

Howell, D. (1997), *Statistical Methods for Psychology*, 4th ed., Wadsworth Publishing Company, Belmont, California, United States, 724 p.

Hu, L. and Bentler, P. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives", *Structural Equation Modeling*, Vol. 6(1), pp. 1-55.

Hunt, S. (1993), "Objectivity in marketing theory and research", *Journal of Marketing*, Vol. 57(2), pp. 76-91.

Hurtz, G. and Donovan J. (2000), "Personality and job performance: The Big Five revisited", *Journal of Applied Psychology*, Vol. 85(6), pp. 869-879.

Hutt, M. and Walker, B. (2006), "A network perspective of account manager performance", *Journal of Business & Industrial Marketing*, Vol. 21(7), pp. 466-473.

Ivens, B. and Pardo, C. (2007), "Are key account relationships different? Empirical results on supplier strategies and customer reactions", *Industrial Marketing Management*, Vol. 36(4), pp. 470-482.

Ivens, B. and Pardo, C. (2008), "Key-account-management in business markets: an empirical test of common assumptions", *Journal of Business & Industrial Management*, Vol. 23(5), pp. 301-310.

John, O. and Srivastava, S. (1999), "The Big Five trait taxonomy: History, measurement, and theoretical perspectives", pp. 102-138, In Pervin, L. and John, O. (Eds.), *Handbook of Personality: Theory and Research*, 2nd ed., Guilford Press, New York, New York, United States, 738 p.

Johnson, E. (2001), "Digitizing consumer research", *Journal of Consumer Research*, Vol. 28(2), pp. 331-336.

Kasanen, E., Lukka, K., and Siitonen, A. (1993), "The constructive approach in management account research", *Journal of Management Accounting Research*, Vol. 5(1), pp. 243-264.

Kelloway, K. (1998), *Using LISREL for Structural Equation Modeling, A Researchers Guide*, SAGE Publications, Incorporated, Thousand Oaks, California, United States, 147 p.

Kline, R. (2005), *Principles and Practice of Structural Equation Modeling*. The Guilford Press, New York, New York, United States, 366 p.

Kotler, P. and Keller, K. (2007), *A Framework for Marketing Management*, 3rd ed., Pearson Education, Incorporated, Upper Saddle River, New Jersey, United States, 360 p.

Krosnick, J. (1999), "Survey research", *Annual Review of Psychology*, Vol. 50, pp. 537-567.

Kuratko, D., Rav, M., and Hornsby, J. (1990), "Developing an intrapreneurial assessment instrument for an effective corporate entrapreneurial environment", *Strategic Management Journal*, Vol. 11(5), pp. 49-58.

Larson, P. (2005), "A note on mail surveys and response rates in logistics research", *Journal of Business Logistics*, Vol. 26(2), pp. 211-222.

Lee, C., Ashford, S., and Bobko, P. (1990), "Interactive effect of "Type A" behavior and perceived control on worker performance, jobs satisfaction, and somatic complaints", *The Academy of Management Journal*, Vol. 33(4), pp. 870-881.

Lee, C. and Gillen, D. (1989), "Relationship of type A behavior pattern, self-efficacy perceptions on sales performance", *Journal of Organizational Behavior*, Vol. 10(1), pp. 75-81.

Lim, B-C. and Ployhart, R. (2006), "Assessing the convergent and discriminant validity of Goldberg's international personality item pool: A multitrait-multimethod examination", *Organizational Research Methods*, Vol. 9(1), pp. 29-54.

Loo, R. and Thorpe, K. (2000), "Confirmatory factor analyses of the full and short versions of the Marlowe-Crowne social desirability scale", *The Journal of Social Psychology*, Vol. 140(5), pp. 628-635.

Lubin, R., Larsen, R., and Matarazzo, J. (1984), "Patterns of psychological test usage in the United States: 1935-1982", *American Psychologist*, Vol. 39(4), pp. 451-454.

Lönnqvist, J.-E. and Tuulio-Henriksson, A. (2008), *NEO-PI-R Persoonallisuus-mittarin Suomenkielisen Käännöksen Validointi* (in Finnish), Publications of the National Public Health Institute B, 33/2008, National Public Health Institute, Helsinki, Finland, 12 p.

Lönnqvist, J.-E., Verkasalo, M., and Leikas, S. (2008), "Viiden suuren persoonallisuusfaktorin 10, 60, ja 300 osion julkiset mittarit" (in Finnish), *Psykologia*, 5, pp. 328-341.

Lööf, A. (2008), “Internet usage in 2008 – Households and Individuals”, Eurostat, 46/2008, Internet source http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-QA-08-046/EN/KS-QA-08-046-EN.PDF, accessed 2010-03-04.

Mahlamäki, T. (2001), *Challenges of Online Market Research*, Master of Science Theses, Tampere University of Technology, Industrial Management, 85 p.

Mahlamäki, T. and Leppänen, M. (2009), "Key Account Manager well-being at work and its development" (in Finnish), Työelämän tutkimuspäivät, Tampere, 13 p.

Malhotra, N. (2010), *Marketing Research, An Applied Orientation Global Edition*, 6th ed., Pearson Education Incorporated, Upper Saddle River, New Jersey, United States, 929 p.

Malhotra, N. and Birks, D. (2000), *Marketing Research, An Applied Approach, European Edition*, Pearson Education Limited, Harlow, Essex, United Kingdom, 731 p.

Marsden, D. and Littler, D. (1996), “Evaluating alternative research paradigms: a market-oriented framework”, *Journal of Marketing Management*, Vol. 12(7), pp. 645-655.

Matteson, M., Ivancevich, J., and Smith, S. (1984), “Relation of type A behavior to performance and satisfaction among sales personnel”, *Journal of Vocational Behavior*, Vol. 25(2), pp. 203-214.

McCrae, R. and Costa, P. (1997), “Personality trait structure as a human universal”, *American Psychologist*, Vol. 52(5), pp. 509-516.

McCrae, R. and Costa, P. (2004), “A contemplated revision of the NEO Five-Factor Inventory”, *Personality and Individual Differences*, Vol. 36(3), pp. 587-596.

McCrae, R. and Costa, P. (2007), “Brief Versions of the NEO-PI-3”, *Journal of Individual Differences*, Vol. 28(3), pp. 116-128.

McCrae, R., Costa, P., Hrebickova, M., Urbanek, T., Martin, T., Oryol, V., Rukavishnikov, A., and Senin, I. (2004), “Age differences in personality traits across cultures: Self-report and observer perspectives”, *European Journal of Personality*, Vol. 18(2), pp. 143-157.

McCrae, R., Costa, P., Pillar, G., Rolland, J-P., and Parker, W. (1998), “Cross-cultural assessment of the Five-Factor Model: The revised NEO Personality Inventory”, *Journal of Cross-Cultural Psychology*, Vol. 29(1), pp. 171-188.

McCrae, R., Zonderman, A., Costa, P., Bond, M., and Paunonen, S. (1996), "Evaluating replicability of factors in the revised NEO personality inventory: Confirmatory factor analysis versus procrustes rotations", *Journal of Personality and Social Psychology*, Vol. 70(3), pp. 552-566.

McDonald, M., Millman, T., and Rogers, B. (1997), "Key account management: theory, practice and challenges", *Journal of Marketing Management*, Vol. 13(8), pp. 737-757.

McDonald, M. and Rogers, B. (1998), *Key Account Management: Learning From Supplier and Customer Perspectives*, Butterworth-Heinemann, Oxford, United Kingdom, 194 p.

McDonald, M. and Woodburn, D. (2007), *Key Account Management, The Definitive Guide*, 2nd ed., Elsevier, Oxford, United Kingdom, 389 p.

McGivern, Y. (2006), *The Practice of Market and Social Research*, 2nd ed., Pearson Education Limited, Harlow, Essex, United Kingdom, 553 p.

Mick, D. (1986), "Consumer research and semiotics: exploring the morphology of signs, symbols, and significance", *Journal of Consumer Research*, Vol. 13(2), pp. 196-213.

Millman, T. (1996), "Global key account management and systems selling", *International Business Review*, Vol. 5(6), pp. 631-645.

Millman, T. and Wilson, K. (1995), "From key account selling to key account management", *Journal of Marketing Practice: Applied Marketing Science*, Vol. 1(1), pp. 9-21.

Millman, T. and Wilson, K. (1999), "Processual issues in key account management: underpinning the customer-facing organization", *Journal of Business & Industrial Marketing*, Vol. 148(4), pp. 328-337.

Mohr, J., Fisher, R., and Nevin, J. (1996), "Collaborative communication in interfirm relationships: moderating effects of integration and control", *Journal of Marketing*, Vol. 60(3), pp. 103-115.

Montgomery, D. and Yip, G. (2000), "The challenge of global customer management", *Marketing Management*, Vol. 9(4), pp. 22-29.

Moorman, R. and Podakoff, P. (1992), "A meta-analytic review and empirical test of the potential confounding effects of social desirability response sets in organizational behaviour research", *Journal of Occupational and Organizational Psychology*, Vol. 65(2), pp. 131-149.

Mount, M. and Barrick, M. (1995), "The Big Five personality dimensions: Implications for research and practice in human resource management", pp. 153-200, In Ferris, G. (ed.): *Research in Personnel and Human Resource Management*, Vol. 13, JAI Press, Greenwich, Connecticut, United States, 316 p.

Murphy, K. (2008), "Explaining the weak relationship between job performance and ratings of job performance", *Industrial and Organizational Psychology*, Vol. 1(2), pp. 148-160.

Napolitano, L. (1997), "Customer-supplier partnering: a strategy whose time has come", *Journal of Personal Selling & Sales Management*, Vol. 17(4), pp. 1-8.

Neilimo, K. and Näsi, J. (1980), *Nomoteettinen tutkimusote ja suomalainen yrityksen taloustiede: Tutkimus positivismin soveltamisesta* (in Finnish), Tampereen Yliopisto, Yrityksen taloustieteen ja yksityisoikeuden laitoksen julkaisuja, Sarja A2: Tutkielmia ja raportteja 12, University of Tampere, Tampere, Finland, 82 p.

Noller, P., Law, H., and Comrey, A. (1987), "Cattell, Comrey, and Eysenck personality factors compared: More evidence for the five robust factors?", *Personality and Social Psychology*, Vol. 53(4), pp. 775-782.

Nunnally, J. (1978), *Psychometric Theory*, McGraw-Hill, New York, New York, United States, 701 p.

Nye, C., Roberts, B., Saucier, G., and Zhou, X. (2008), "Testing the measurement equivalence of personality adjective items across cultures", *Journal of Research in Personality*, Vol. 42(6), pp. 1524-1536.

Nätti, S., Halinen, A., and Hanttu, N. (2006), "Customer knowledge transfer and key account management in professional service organizations", *International Journal of Service Industry Management*, Vol. 17(4), pp. 304-319.

Ojasalo, J. (2001), "Key account management at company and individual levels in business-to-business relationships", *Journal of Business & Industrial Marketing*, Vol. 16(3), pp. 199-218.

Ones, D. and Viswesvaran, C. (1996), "Bandwidth-fidelity dilemma in personality measurement for personnel selection", *Journal of Organizational Behavior*, Vol. 17(6), pp. 609-626.

Organ, D. and Lingl, A. (1995), "Personality, satisfaction, and organizational citizenship behavior", *Journal of Social Psychology*, Vol. 135(3), pp. 339-350.

Pardo, C., Henneberg, S., and Mouzas, S. (2006), "Unpicking the meaning of value in key account management", *European Journal of Marketing*, Vol. 40(11/12), pp. 1360-1374.

Parker, P., Martin, A., and Marsh, H. (2008), "Factors predicting life satisfaction: A process model of personality, multidimensional self-concept, and life satisfactions", *Australian Journal of Guidance & Counselling*, Vol. 18(1), pp. 15-29.

Pegram, R. (1972), "Selling and servicing the national account", Report No. 557, The Conference Board, New York, New York, United States, 106 p.

Pervin, L. (2003), *The Science of Personality*, 2nd ed., Oxford University Press, Incorporated, New York, New York, United States, 528 p.

Peter, J. (1981), "Construct validity: A review of basic issues, and marketing practices", *Journal of Marketing Research*, Vol. 18(2), pp. 133-145.

Piercy, N., Cravens, D., and Morgan, N. (1998), "Salesforce performance and behavior-based management processes in business-to-business sales organizations", *European Journal of Marketing*, Vol. 32(1/2), pp.79-100.

Piercy, N. and Lane, N. (2006), "The underlying vulnerabilities in key account management strategies", *European Management Journal*, Vol. 24(2-3), pp. 151-162.

Rasinski, K., Visser, P., Zagatsky, M., and Rickett, E. (2005), "Using implicit goal priming to improve the quality of self-report data", *Journal of Experimental Social Psychology*, Vol. 41(3), pp. 321-327.

Reilly, R. and Chao, G. (1982), "Validity and fairness of some alternative employee selection procedures", *Personnel Psychology*, Vol. 35(1), pp. 1-62.

Reisel, W., Chia, S-L., and Maloles, C. (2005), "Job insecurity spillover to key account management: negative effects on performance, effectiveness, adaptiveness, and esprit de corps", *Journal of Business and Psychology*, Vol. 19(4), pp. 483-503.

Reynolds, W. (1982), "Development of reliable and valid short forms of the Marlowe-Crowne social desirability scale", *Journal of Clinical Psychology*, Vol. 38(1), pp. 191-125.

Robinson, J., Shaver, P., and Wrightsman, L. (1991), "Criteria for scale selection and evaluation", pp. 1-16, In Robinson, J., Shaver, P., and Wrightsman, L. (Eds.), *Measures of Personality and Social Psychological Attitudes: Volume 1: Measures of Social Psychological Attitudes*, Academic Press, San Diego, CA, United States, 753 p.

Roth, W. and Mehta, L. (2002), "The Rashomon effect: combining positivist and interpretivist approaches in the analysis of contested events", *Sociological Methods Research*, Vol. 31(2), pp. 131-173.

Rudmin, F. (1999), "Norwegian short-form of the Marlowe-Crowne social desirability scale", *Scandinavian Journal of Psychology*, Vol. 40(3), pp. 229-233.

Ryals, L. and Holt, S. (2007), "Creating and capturing value in KAM relationships", *Journal of Strategic Marketing*, Vol. 15(5), pp. 403-420.

Ryals, L. and Rogers, B. (2007), "Key account planning: benefits, barriers and best practice", *Journal of Strategic Marketing*, Vol. 15(2-3), pp. 209-222.

Salgado, J. (1997), "The Five Factor Model of personality and job performance in the European Community", *Journal of Applied Psychology*, Vol. 82(1), pp. 30-43.

Salgado, J. (2003), "Predicting job performance using FFM and non-FFM personality measures", *Journal of Occupational and Organizational Psychology*, Vol. 76(3), pp. 323-346.

Salonen, T. (2001), *Tieteen Filosofia* (in Finnish), Lapin yliopisto, Rovaniemi, Finland, 149 p.

Saucier, G. and Goldberg, L. (2002), "Assessing the Big Five: Applications of 10 psychometric criteria to the development of marker scales", pp. 29-58, In Raad, B and Perugini, M. (Eds.), *Big Five Assessment*, Hogrefe & Huber Publishers, Kirkland, Washington, United States, 491 p.

Schmitt, N., Gooding, R., Noe, R., and Kirsch, M. (1984), "Metaanalyses of validity studies published between 1964 and 1982 and the investigation of study characteristics", *Journal of Applied Psychology*, Vol. 37(3), pp. 407-422.

Scroggins, W., Thomas, S., and Morris, J. (2009), "Psychological testing in personnel selection, part III: The resurgence of personality testing", *Public Personnel Management*, Vol. 38(1), pp. 67-77.

Segal, D. and Coolidge, F. (2004), "Objective assessment of personality and psychopathology: An overview", pp. 3-14, In Hersen, M. (Ed.), *Comprehensive Handbook of Psychological Assessment: Personality assessment*, Vol. 2, John Wiley and Sons, Incorporated, Hoboken, New Jersey, United States, 688 p.

Sells, S., Demaree, R., and Will, D. (1970), "Dimensions of personality: Conjoint factor structure of Guilford and Cattell trait markers", *Multivariate Behavioral Research*, Vol. 5(4), pp. 391-422.

Sengupta, S., Krapfel, R., and Pusateri, M. (2000), "An empirical investigation of key account salesperson effectiveness", *Journal of Personal Selling & Sales Management*, Vol. 20(4), pp. 253-261.

Sharma, A. (2006), "Success factors in key accounts", *Journal of Business & Industrial Marketing*, Vol. 21(3), pp. 141-150.

Sherry, S., Hewitt, P., Flett, G., Lee-Baggley, D., and Hall, P. (2007), "Trait perfectionism and perfectionistic self-presentation in personality pathology", *Personality and Individual Differences*, Vol. 42(3), pp. 477-490.

Shi, L., Zou, S., and Cavusgil, T. (2004), "A conceptual framework of global account management capabilities and firm performance", *International Business Review*, Vol. 13(5), pp. 539-553.

Shultz, R. and Evans, K. (2002), “Strategic collaborative communication by key account representatives”, *Journal of Personal Selling & Sales Management*, Vol. 22(1), pp. 23-31.

Smith, P. (1976), “Behaviors, results, and organizational effectiveness: the problem of criteria”, pp. 745-775, In Dunette, M. (Ed.): *The Handbook of Industrial and Organizational Psychology*, *Vol. 1, Personnel Psychology*, Rand McNally College Publishing Company, Chicago, Illinois, United States, 1740 p.

Spector, P. (1992), *Summated Rating Scale Construction, An Introduction*, SAGE Publications, Incorporated, Newbury Park, California, United States, 72 p.

Srivastava, R., Shervani, T., and Fahey, L. (1999), “Marketing, business processes, and shareholder value: An organizationally embedded view of marketing activities and the discipline of marketing”, *Journal of Marketing*, Vol. 63(4), pp. 168-179.

Strahan, R. and Gerbasi, K. (1972), “Short, homogeneous versions of the Marlowe-Crowne social desirability scale”, *Journal of Clinical Psychology*, Vol. 28(2). pp. 191-193.

Stöber, J., Dette, D., and Musch, J. (2002), “Comparing continuous and dichotomous scoring of the balanced inventory of desirable responding, *Journal of Personality Assessment*, Vol. 78(2), pp. 370-389.

Sujan, H., Weitz, B., and Kumar, N. (1994), “Learning orientation, working smart, and effective selling”, *Journal of Marketing*, Vol. 58(3), pp. 39-52.

Tapaninen, A., Auer, H., Heiskari, P., Honkaniemi, L., Junnila, K., Kaukonen, T., Lehtinen, T. and Levo, A. (Workgroup). (2007), *PK5 – Persoonallisuustestin käsikirja* (in Finnish), Psykologien Kustannus Oy, 173 p.

Tempelaar, D., Gijselaers, W., Loeff, S., and Nijhuis, J. (2007), "A structural equation model analyzing the relationship of student achievement motivations and personality factors in a range of academic subject-matter areas", *Contemporary Education Psychology*, Vol. 32(1), pp. 105-131.

Tett, R., Jackson, D., and Rothstein, M. (1991), “Personality measures as predictors of job performance: A meta-analytic review”, *Personnel Psychology*, Vol. 44(1), pp. 703-742.

Tett, R., Jackson, D., Rothstein, M., and Reddon, J. (1999), “Meta-analysis of bidirectional relations in personality-job performance research”, *Human Performance*, Vol. 12(1), pp. 1-29.

Tett, R., Steele, J., and Beauregard, R. (2003), “Broad and narrow measures on both sides of the personality-job performance relationship”, *Journal of Organizational Behavior*, Vol. 24(3), pp. 335-356.

Tews, M. and Tracey, B. (2008), "An empirical examination of posttraining on-the-job supplements for enhancing the effectiveness of interpersonal skills training", *Personnel Psychology*, Vol. 61(2), pp. 375-401.

Thompson, E. and Phua, F. (2005), “Reliability among senior managers of the Marlowe-Crowne short-form social desirability scale”, *Journal of Business and Psychology*, Vol. 19(4), pp. 541-554.

Tilastokeskus (2008), “Väestön koulutusrakenne 1998-2007 vuoden 2008 aluejaolla” (in Finnish), Internet source http://pxweb2.stat.fi/Dialog/Varvalagg.asp?ma=010_vkour_tau_101_fi&ti=V%E4est%F6n+koulutusrakenne+19982007+vuoden+2008+aluejaolla&path=../Database/StatFin/kou/vkour/&lang=3&xu=&yp=&nr=1&aggfile(1)=Hovioikeuspiirit+2008&prevagg=NNNN&mapname=&multilang=fi, updated 2008-12-09, accessed 2009-05-12.

Tilastokeskus (2009a), ”Väestö pääasiallisen toiminnan, sukupuolen ja iän mukaan” (in Finnish), Internet source http://pxweb2.stat.fi/Database/StatFin/Vrm/tyokay/tyokay_fi.asp, updated 2009-03-11, accessed 2009-05-12.

Tilastokeskus (2009b), ”Koulutus periytyy edelleen” (in Finnish), Internet source http://www.stat.fi/artikkelit/2009/art_2009-03-16_002.html?s=0#1, updated 2009-03-16, accessed 2010-03-04.

Tokar, D., Fischer, A., Snell, A., and Harik-Williams, N. (1999), “Efficient assessment of the Five-Factor Model of personality: Structural validity analyses of the NEO Five-Factor Inventory (Form S)”, *Measurement and Evaluation in Counseling and Development*, Vol. 32(1), pp. 14-30.

Tupes, E. and Christal, R. (1961), “Recurrent personality factors based on trait ratings”, Technical Report, ASD-TR-61-97, Aeronautical Systems Division, Personnel Laboratory, Lackland Air Force Base, Texas, United States, 40 p.

Varsinais-Suomen Liitto (2005), ”Tietoa työelämästä ja koulutuksesta Varsinais-Suomessa” (in Finnish), Internet source http://www.poliisi.fi/lh/lansi/siv/home.nsf/files/DD0F74BDB683EEB7C225729C004CBF0C/$file/tietoa%20ty%C3%B6el%C3%A4m%C3%A4st%C3%A4.pdf, updated 2005/11, accessed 2009-05-12.

Velicer, W. and Fava, J. (1998), "Effects of variable and subject sampling on factor pattern recovery", *Psychological Methods*, Vol. 3(2), pp. 231-251.

Vries, R., Lee, K., and Ashton, M. (2008), “The Dutch HEXACO personality inventory: Psychometric properties, self-other agreement, and relations with psychopathy among low and high acquaintanceship dyads”, *Journal of Personality Assessment*, Vol. 90(2), pp. 142-151.

Vriens, M. and Melton, E. (2002), "Managing missing data", *Marketing Research*, Vol. 14(3), pp. 12-17.

Wanberg, C., Kanfer, R., and Banas, J. (2000), "Predictors and outcomes of networking intensity among unemployed job seekers", *Journal of Applied Psychology*, Vol. 85(4), pp. 491-503.

Wasti, S., Lee, K., Ashton, M., and Somer, O. (2008), “Six Turkish personality factors and the HEXACO model of personality structure”, *Journal of Cross-Cultural Psychology*, Vol. 39(6), pp. 665-684.

Wengler, S. (2006), *Key Account Management in Business-to-Business Markets, An Assessment of Its Economic Value*, Deutscher Universitäts-Verlag, Wiesbaden, Germany, 294 p.

Wengler, S., Ehret, M., and Saab, S. (2006), “Implementation of key account management: who, why, and how? An exploratory study on the current implementation of key account management programs”, *Industrial Marketing Management*, Vol. 35(1), pp. 103-112.

Wilson, D. (1995), “An integrated model of buyer-seller relationships”, *Journal of the Academy of Marketing Science*, Vol. 23(4), pp. 335-345.

Workman, J. Jr., Homburg, C., and Jensen, O. (2003), “Intraorganizational determinants of key account management effectiveness”, *Journal of the Academy of Marketing Science*, Vol. 31(1), pp. 3-21.

Wotruba, T. and Castleberry, S. (1993), “Job analysis and hiring practices for national account marketing positions”, *Journal of Personal Selling & Sales Management*, Vol. 13(3), pp. 49-65.

Zupancic, D. (2008), “Towards an integrated framework of key account management”, *Journal of Business & Industrial Marketing*, Vol. 23(5), pp. 323-331.

APPENDIX 1

Personality Assessment Inventory Items

Table. Personality Assessment Inventory Items

Item scale and code	Item
Extraversion (E)	
Extra1	In unclear situations, I usually take control of things.
Extra2	I don't get nervous before giving a toast.
Extra3	It is easy for me to get to know other people.
Extra4	I usually let others make the decisions.
Extra5	I enjoy being with others more than being alone.
Extra6	It is easy for me to phone strangers.
Extra7	Can talk others into doing things.
Extra8	It is easy for me to get back at others.
Agreeableness (A)	
Agree1	I trust other people.
Agree2	I am not interested in other people's problems.
Agree3	I would rather work alone than in a group.
Agree4	I trust what people say.
Agree5	Planning things in a group is easier than doing it alone.
Agree6	I often suspect others of lying.
Agree7	I like to help others.
Agree8	I believe that people usually have good intentions.
Conscientiousness (C)	
Consc1	Disarray bothers me.
Consc2	I am conscientious about the things I do.
Consc3	I don't consider the things I am about to say.
Consc4	I finish my work on time.
Consc5	I plan my actions carefully.
Consc6	I jump into things without thinking.
Consc7	A mess in my apartment doesn't bother me.
Consc8	I am deliberate in my decisions.
Consc9	I obey the rules the best I can.
Emotional stability (ES)	
Emot1	I feel that I can handle any situation.
Emot2	I seldom get angry.
Emot3	It is hard for me to take criticism
Emot4	It is easy to hurt me emotionally.
Emot5	I get very nervous before important meetings.
Emot6	I get worried easily - even over small things.
Emot7	I stay calm even in challenging situations.
Emot8	I don't get annoyed easily.
Openness to Experience (O)	
Openn1	I like to try out new things.
Openn2	I believe in the importance of art.
Openn3	I have a vivid imagination.
Openn4	I am easily touched by music.
Openn5	I greatly appreciate poetry.
Openn6	I enjoy wild flights of fantasy.
Openn7	I see beauty in things that others might not notice.

Table. Personality Assessment Inventory Items (in Finnish)

Item scale and code	Item
Extraversion (E)	
Extra1	Otan epäselvissä tilanteissa helposti johdot käsiini.
Extra2	En jännitä paljoakaan juhlapuheen pitämistä.
Extra3	Minun on helppo tutustua uusiin ihmisiin.
Extra4	Annan yleensä toisten tehdä päätökset.
Extra5	Viihdyn paremmin muiden seurassa kuin yksin.
Extra6	Minun on helppo soittaa puhelimella tuntemattomille ihmisille.
Extra7	Pystyn helposti vaikuttamaan muihin ihmisiin.
Extra8	Minun on helppo sanoa vastaan muille ihmisille.
Agreeableness (A)	
Agree1	Luotan muihin ihmisiin.
Agree2	En ole kiinnostunut muiden ihmisten ongelmista.
Agree3	Teen mieluummin töitä yksin kuin ryhmässä.
Agree4	Luotan muiden ihmisten sanaan.
Agree5	Ryhmässä asioiden suunnittelu on helpompaa kuin yksin.
Agree6	Epäilen usein muita ihmisiä valehtelusta.
Agree7	Pidän muiden auttamisesta.
Agree8	Uskon, että ihmisillä on yleensä hyvät tarkoitusperät.
Conscientiousness (C)	
Consc1	Epäjärjestys häiritsee minua.
Consc2	Olen tunnollinen kaikessa tekemisessäni.
Consc3	En harkitse sanomisiani ennakkoon.
Consc4	Teen työtehtäväni aina ajallaan.
Consc5	Suunnittelen tekemiseni tarkkaan.
Consc6	Teen asioita ajattelematta niiden seurauksia.
Consc7	Tavaroiden sekaisuus asunnossani ei häiritse minua.
Consc8	Harkitsen päätöksiäni huolella.
Consc9	Noudatan sääntöjä parhaani mukaan.
Emotional Stability (ES)	
Emot1	Tunnen, että pystyn hoitamaan asian kuin asian.
Emot2	Suutun hyvin harvoin.
Emot3	Minun on vaikea kestää muiden ihmisten minuun kohdistamaa arvostelua.
Emot4	Minua on helppo satuttaa henkisesti.
Emot5	Jännitän paljon tärkeitä tapaamisia.
Emot6	Huolestun helposti pienistäkin asioista.
Emot7	Pysyn rauhallisena haastavissakin tilanteissa.
Emot8	En ärsyynny helposti.
Openness to Experience (O)	
Openn1	Kokeilen mielelläni uusia asioita.
Openn2	Uskon, että taiteilla on tärkeä rooli.
Openn3	Minulla on vilkas mielikuvitus.
Openn4	Liikutun helposti kauniista musiikista.
Openn5	Arvostan suuresti runoutta.
Openn6	Nautin kunnon mielikuvitusmatkasta.
Openn7	Näen kauneutta asioissa, jota muut eivät ehkä huomaa.

APPENDIX 2

Statistical Analysis of the Validation Model Extraversion Scale

Table. Principal Component Analysis of Extraversion Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern		
Item	Factor1	Communality
Extra1	**.68**	.46
Extra2	**.60**	.36
Extra3	**.72**	.52
Extra4	**.64**	.40
Extra5	**.46**	.21
Extra6	**.62**	.39
Extra7	**.58**	.34
Extra8	**.66**	.43
Variance Explained	3.11	

Table. Intercorrelations among Extraversion Scale Items

Correlations								
	Extra1	Extra2	Extra3	Extra4	Extra5	Extra6	Extra7	Extra8
Extra1	1.00							
Extra2	.30	1.00						
Extra3	.38	.39	1.00					
Extra4	.46	.27	.35	1.00				
Extra5	.22	.15	.42	.14	1.00			
Extra6	.29	.33	.33	.30	.15	1.00		
Extra7	.36	.24	.30	.24	.17	.27	1.00	
Extra8	.31	.28	.36	.34	.22	.40	.33	1.00

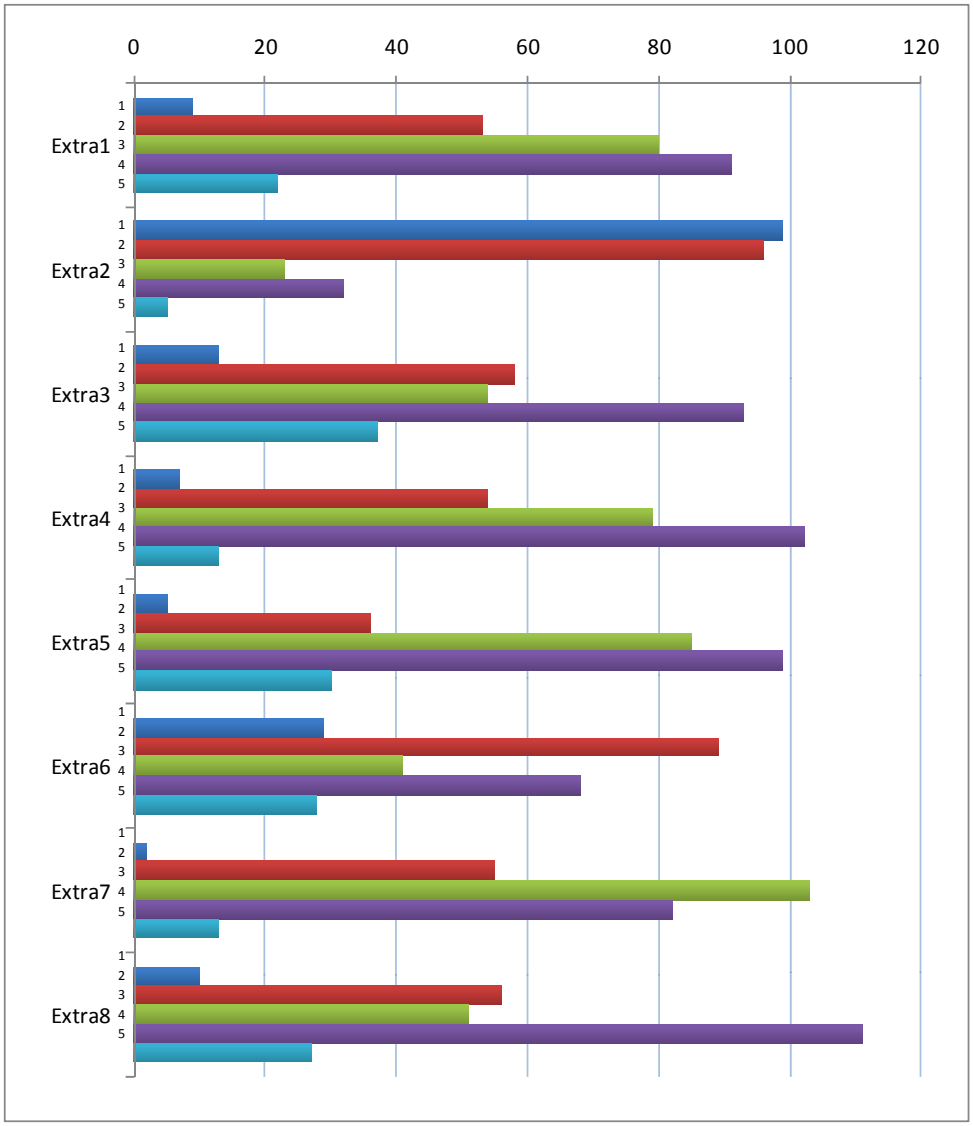


Figure. Extraversion Scale Item Distributions

Table. Extraversion Scale Item Statistics

Scale Item Statistics (N = 255, Scale coefficient alpha = .77)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
Extra1	3.25	1.00	.52	.74
Extra2	2.01	1.08	.45	.75
Extra3	3.33	1.13	.58	.73
Extra4	3.24	.93	.48	.75
Extra5	3.44	.94	.33	.77
Extra6	2.90	1.23	.47	.75
Extra7	3.19	.86	.43	.75
Extra8	3.35	1.06	.51	.74

APPENDIX 3

Statistical Analysis of the Validation Model Agreeableness Scale

Table. Principal Component Analysis of Agreeableness Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern				
Item	Factor1	Factor2	Factor3	Communality
Agree1	**.71**	.35	.01	.63
Agree2	-.04	.24	**.78**	.66
Agree3	.22	**.81**	.03	.71
Agree4	**.82**	.12	.03	.69
Agree5	-.02	**.84**	.20	.74
Agree6	**.73**	-.07	.00	.53
Agree7	.18	-.01	**.84**	.73
Agree8	**.73**	.04	.18	.57
Variance Explained	2.32	1.56	1.38	

Table. Intercorrelations among Agreeableness Scale Items

Agreeableness								
	Agree1	Agree2	Agree3	Agree4	Agree5	Agree6	Agree7	Agree8
Agree1	1.00							
Agree2	.11	1.00						
Agree3	.33	.19	1.00					
Agree4	.56	.06	.20	1.00				
Agree5	.23	.27	.47	.11	1.00			
Agree6	.38	.00	.16	.42	-.02	1.00		
Agree7	.14	.36	.12	.14	.19	.12	1.00	
Agree8	.40	.09	.22	.51	.08	.35	.22	1.00

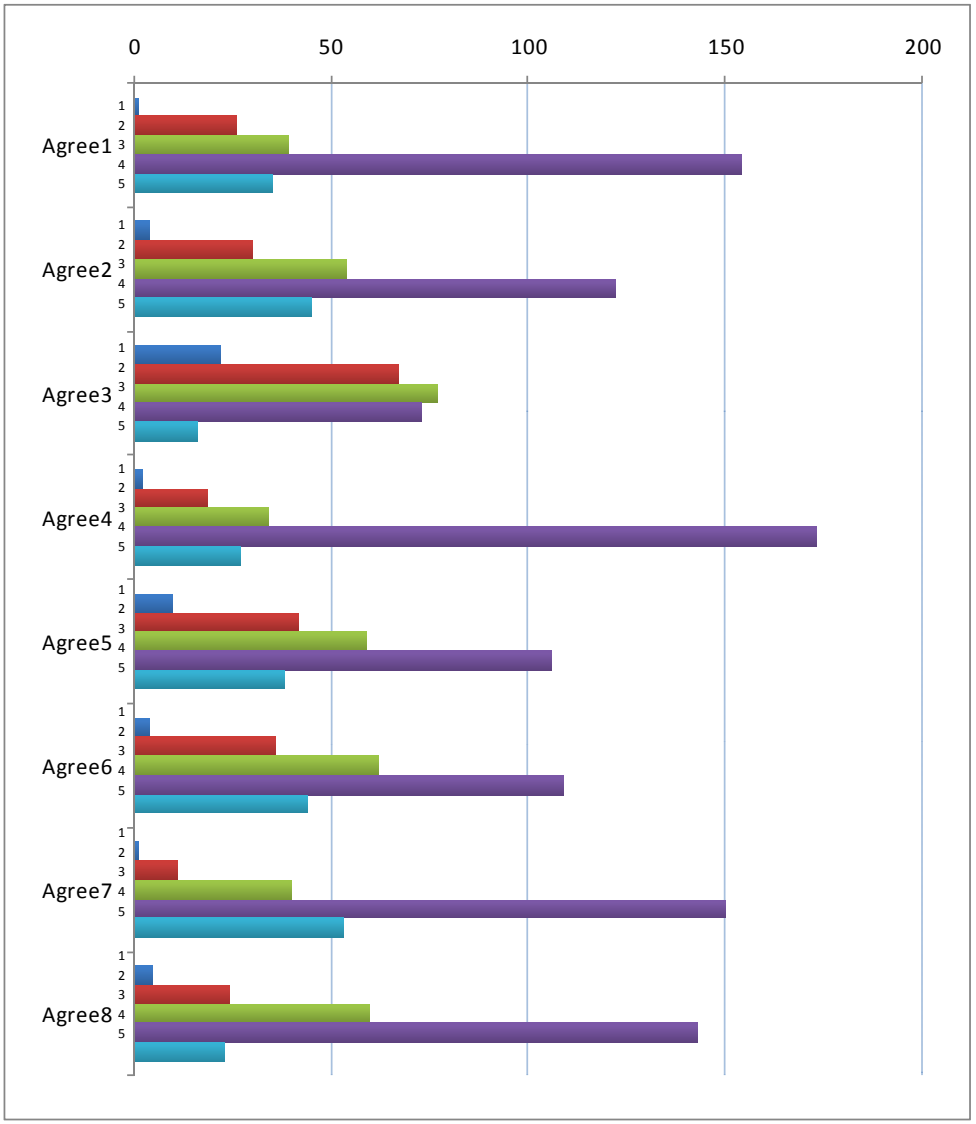


Figure. Agreeableness Scale Item Distributions

Table. Agreeableness Scale Item Statistics

Scale Item Statistics (N = 255, Scale coefficient alpha = .69)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
Agree1	3.77	.83	.53	.63
Agree2	3.68	.95	.25	.69
Agree3	2.97	1.07	.43	.65
Agree4	3.80	.76	.49	.64
Agree5	3.47	1.06	.33	.64
Agree6	3.60	.98	.32	.68
Agree7	3.95	.76	.31	.68
Agree8	3.61	.85	.44	.64

APPENDIX 4

Statistical Analysis of the Validation Model Conscientiousness Scale

Table. Principal Component Analysis of Conscientiousness Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern				
Item	Factor1	Factor2	Factor3	Communality
Consc1	.04	.18	**.88**	.82
Consc2	.07	**.71**	.31	.61
Consc3	**.82**	-.10	.04	.69
Consc4	.17	**.72**	.07	.56
Consc5	**.55**	.30	.18	.43
Consc6	**.77**	.14	.02	.61
Consc7	.11	.06	**.90**	.83
Consc8	**.75**	.32	.04	.67
Consc9	.12	**.77**	-.01	.60
Variance Explained	2.20	1.88	1.74	

Table. Intercorrelations among the Conscientiousness Scale Items

Conscientiousness									
	Consc1	Consc2	Consc3	Consc4	Consc5	Consc6	Consc7	Consc8	Consc9
Consc1	1.00								
Consc2	.33	1.00							
Consc3	.04	.06	1.00						
Consc4	.21	.41	.15	1.00					
Consc5	.22	.19	.27	.31	1.00				
Consc6	.07	.18	.50	.23	.26	1.00			
Consc7	.66	.30	.12	.13	.20	.14	1.00		
Consc8	.15	.32	.44	.25	.52	.49	.11	1.00	
Consc9	.16	.39	.07	.36	.24	.23	.07	.29	1.00

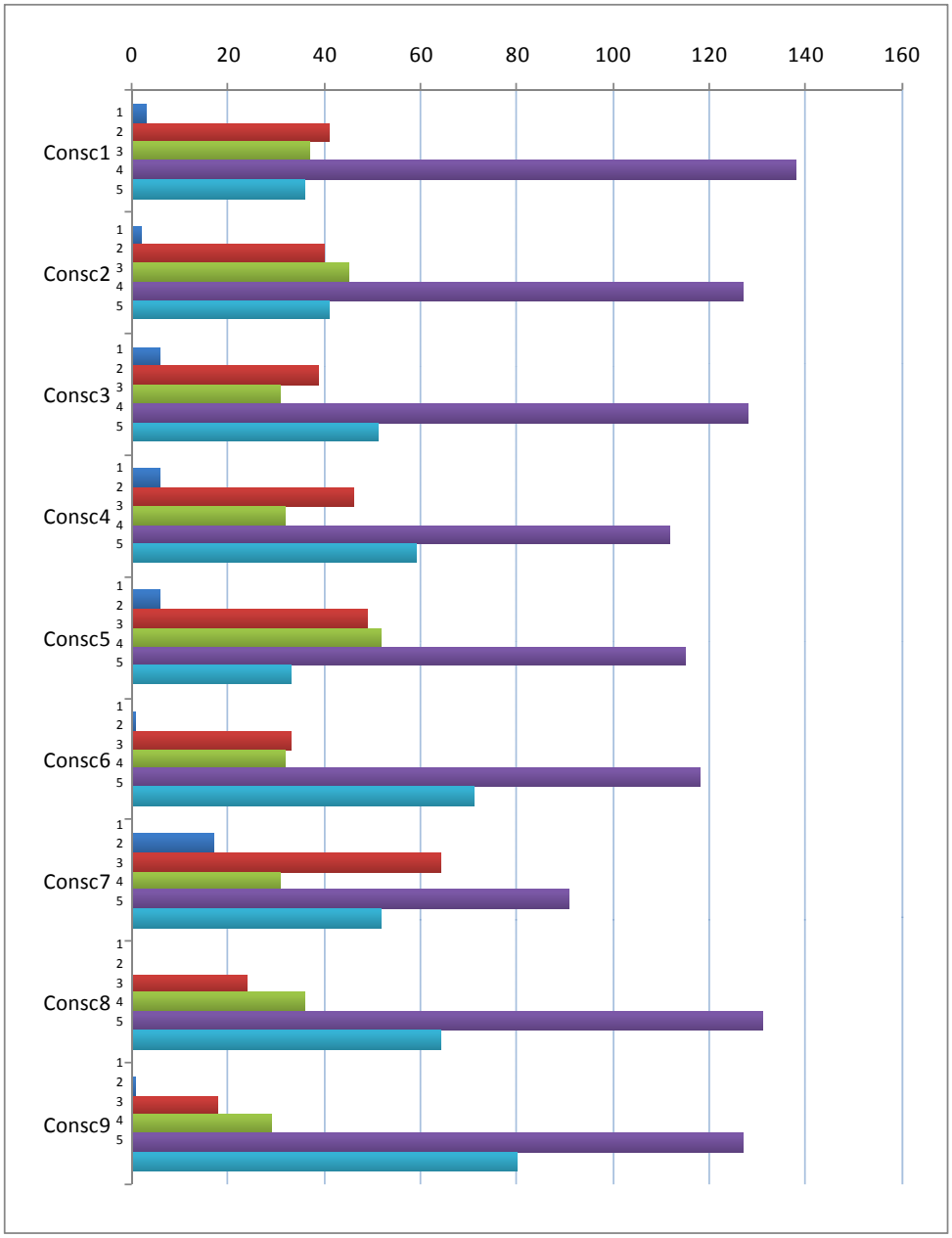


Figure. Conscientiousness Scale Item Distributions

Table. Conscientiousness Scale Item Statistics

Scale Item Statistics (N = 255, Scale coefficient alpha = .75)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
Consc1	3.64	.95	.42	.73
Consc2	3.65	.96	.47	.72
Consc3	3.70	1.03	.34	.74
Consc4	3.67	1.09	.43	.72
Consc5	3.47	1.02	.46	.72
Consc6	3.88	.97	.44	.72
Consc7	3.38	1.25	.37	.74
Consc8	3.92	.87	.54	.71
Consc9	4.05	.86	.39	.73

APPENDIX 5

Statistical Analysis of the Validation Model Emotional Stability Scale

Table. Principal Component Analysis Emotional Stability Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern			
Item	Factor1	Factor2	Communality
Emot1	**.61**	-.09	.38
Emot2	-.02	**.89**	.79
Emot3	**.56**	**.42**	.49
Emot4	**.68**	.38	.61
Emot5	**.75**	.11	.57
Emot6	**.71**	.33	.60
Emot7	.35	**.60**	.48
Emot8	.18	**.85**	.76
Variance Explained	2.36	2.32	

Table. Intercorrelations among Emotional Stability Scale Items

Emotional Stability								
	Emot1	Emot2	Emot3	Emot4	Emot5	Emot6	Emot7	Emot8
Emot1	1.00							
Emot2	.06	1.00						
Emot3	.22	.30	1.00					
Emot4	.20	.29	.54	1.00				
Emot5	.26	.12	.26	.46	1.00			
Emot6	.27	.26	.46	.54	.46	1.00		
Emot7	.19	.43	.32	.37	.38	.33	1.00	
Emot8	.11	.66	.41	.38	.24	.41	.41	1.00

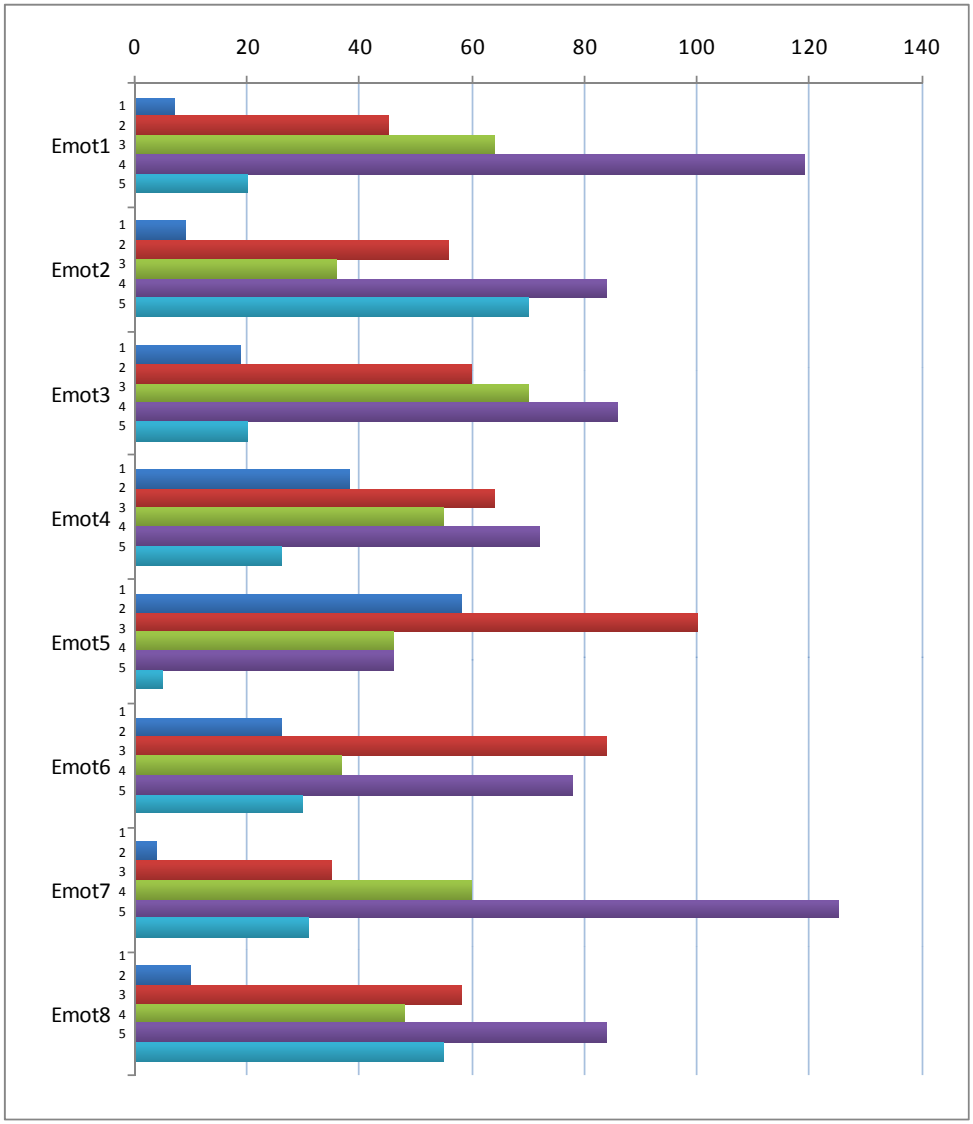


Figure. Emotional Stability Scale Item Distributions

Table. Emotional Stability Scale Item Statistics

Scale Item Statistics (N = 255, Scale coefficient alpha = .80)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
Emot1	3.39	.96	.27	.81
Emot2	3.59	1.20	.46	.79
Emot3	3.11	1.08	.56	.77
Emot4	2.94	1.24	.62	.76
Emot5	2.37	1.08	.48	.79
Emot6	3.00	1.23	.61	.77
Emot7	3.56	.93	.54	.77
Emot8	3.45	1.17	.60	.77

APPENDIX 6

Statistical Analysis of the Validation Model Openness to Experience Scale

Table. Principal Component Analysis of Openness to Experience Scale, Varimax Rotated Factor Loadings

Rotated Factor Pattern			
Item	Factor1	Factor2	Communality
Openn1	-.04	**.44**	.19
Openn2	**.82**	-.02	.67
Openn3	.06	**.84**	.71
Openn4	**.69**	.05	.48
Openn5	**.78**	.06	.61
Openn6	.33	**.65**	.53
Openn7	**.62**	.33	.49
Variance Explained	2.24	1.44	

Table. Intercorrelations among Openness to Experience Scale Items

Openness							
	Openn1	Openn2	Openn3	Openn4	Openn5	Openn6	Openn7
Openn1	1.00						
Openn2	.04	1.00					
Openn3	.13	.10	1.00				
Openn4	.04	.37	.06	1.00			
Openn5	.02	.56	.17	.34	1.00		
Openn6	.02	.20	.40	.29	.24	1.00	
Openn7	.15	.40	.23	.36	.34	.27	1.00

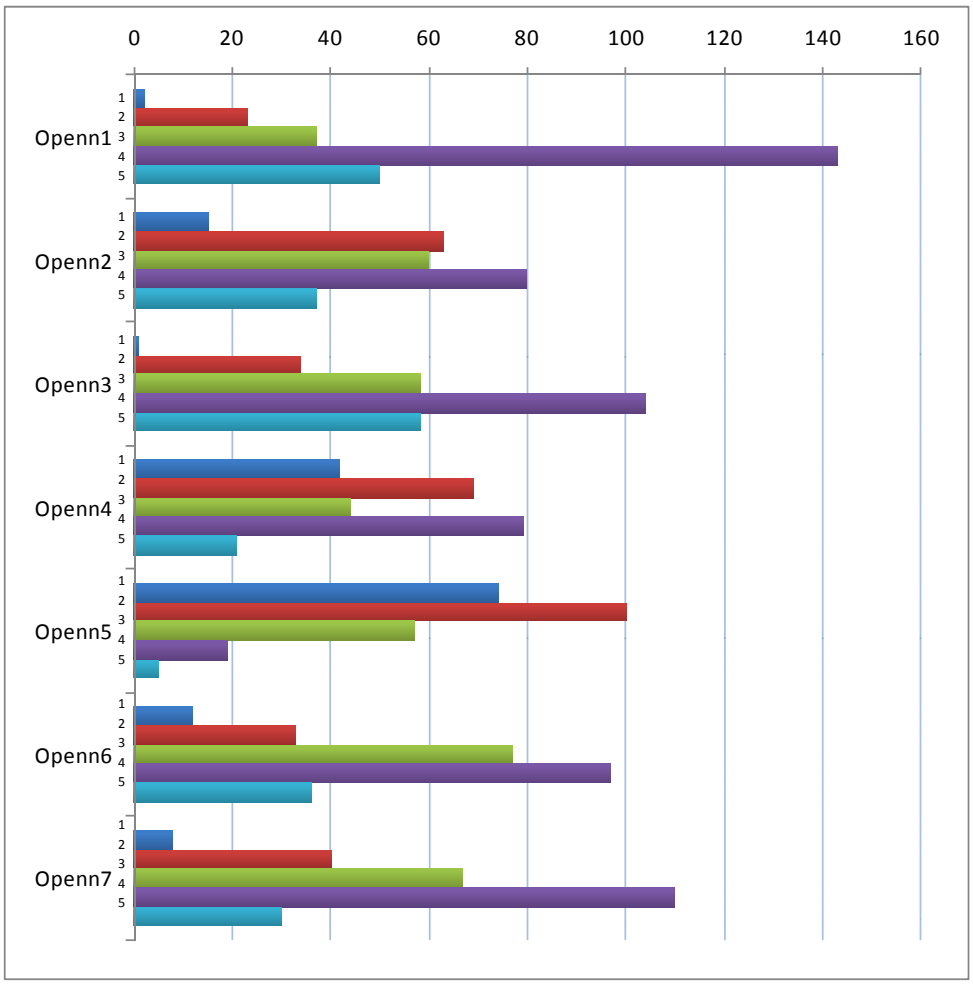


Figure. Openness to Experience Scale Item Distributions

Table. Openness Scale Item Statistics

Scale Item Statistics (N = 255, Scale coefficient alpha = .68)				
Item	Average	Standard deviation	Correlation with total	Alpha if item is removed
Openn1	3.85	.87	.10	.71
Openn2	3.24	1.15	.49	.61
Openn3	3.72	.97	.29	.67
Openn4	2.87	1.25	.42	.63
Openn5	2.14	.99	.50	.61
Openn6	3.43	1.04	.40	.64
Openn7	3.44	.99	.51	.61

APPENDIX 7

Varimax Rotated Factor Loadings and Alphas of the Validation Sample

	Factor					Alpha
Facet and item	E	A	C	ES	O	(stand.)
Extraversion (E)						.77 (.77)
Extra1	**.56**	-.03	-.01	.12	.09	
Extra2	**.45**	.00	-.11	.32	.04	
Extra3	**.68**	.23	.01	.11	.00	
Extra4	**.48**	-.12	-.02	.19	-.07	
Extra5	**.50**	.33	-.04	-.09	-.01	
Extra6	**.45**	-.11	-.09	.33	-.02	
Extra7	**.45**	-.16	-.08	.20	.21	
Extra8	**.56**	-.23	-.11	.13	-.05	
Agreeableness (A)						.69 (.70)
Agree1	.20	**.64**	-.08	.13	-.03	
Agree2	.21	.21	.09	-.20	.29	
Agree3	**.49**	.38	-.10	.10	-.05	
Agree4	-.05	**.72**	.00	.13	.00	
Agree5	**.40**	.29	-.09	-.11	-.06	
Agree6	-.09	**.52**	.16	.27	-.09	
Agree7	.21	.27	.22	.01	.33	
Agree8	.14	**.56**	.01	.16	.14	
Conscientiousness (C)						.75 (.75)
Consc1	.30	-.04	**.43**	-.28	.00	
Consc2	.21	.03	**.55**	-.14	.03	
Consc3	-.28	-.10	**.45**	.15	-.05	
Consc4	.09	.03	**.52**	.01	-.10	
Consc5	-.10	-.09	**.56**	-.02	-.07	
Consc6	-.22	.00	**.55**	.21	-.04	
Consc7	.22	-.06	**.40**	-.24	.02	
Consc8	-.03	.12	**.65**	.03	.05	
Consc9	.09	.08	**.47**	-.15	-.05	
Emotional Stability						.80 (.80)
Emot1	**.49**	.01	.16	.21	.00	
Emot2	-.15	.25	.23	**.50**	.11	
Emot3	.17	.12	.04	**.58**	-.06	
Emot4	.20	.00	-.06	**.72**	-.18	
Emot5	.35	.07	-.06	**.53**	-.10	
Emot6	.15	.15	-.19	**.68**	-.09	
Emot7	.09	.08	.14	**.56**	.23	
Emot8	-.06	.28	.12	**.61**	.08	
Openness to Experience (O)						.68 (.67)
Openn1	**.48**	.10	-.04	.16	.16	
Openn2	-.05	.01	-.03	.04	**.62**	
Openn3	.18	-.11	-.06	-.10	.30	
Openn4	.02	.04	-.02	-.33	**.58**	
Openn5	.02	-.03	.02	-.06	**.57**	
Openn6	-.08	.01	.07	-.17	**.42**	
Openn7	.03	-.01	-.08	.02	**.66**	

APPENDIX 8

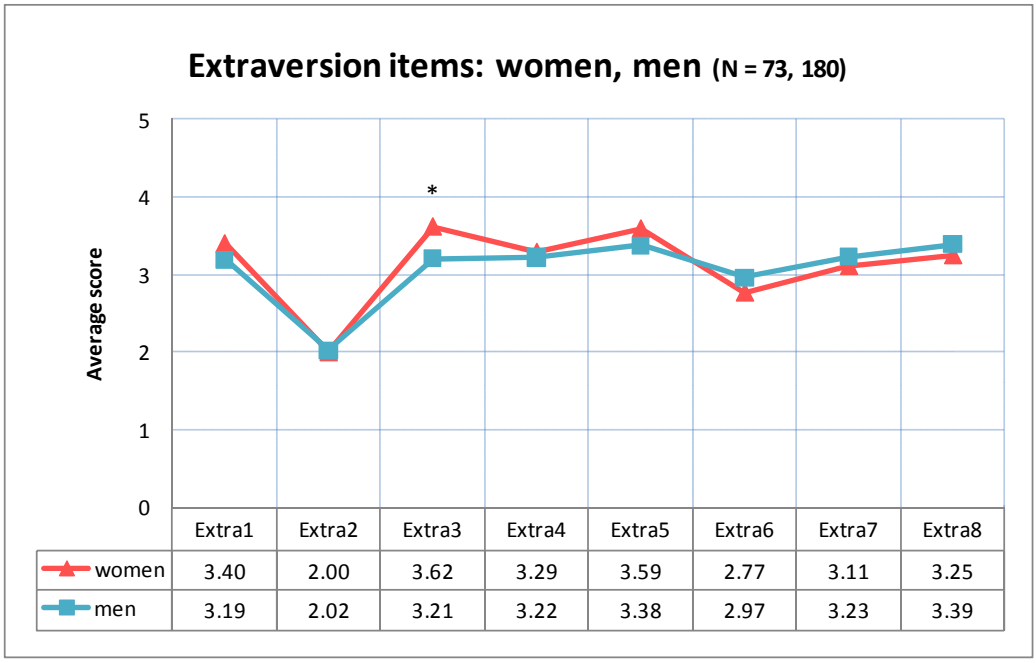
Intercorrelations between the Scales of the Validation Sample

Pearson Correlations					
	E	A	C	ES	O
E	1.00				
A	.32	1.00			
C	-.08	.01	1.00		
ES	.39	.32	-.03	1.00	
O	.10	.12	-.05	-.11	1.00

Prob. > |r| under H0: Rho = 0

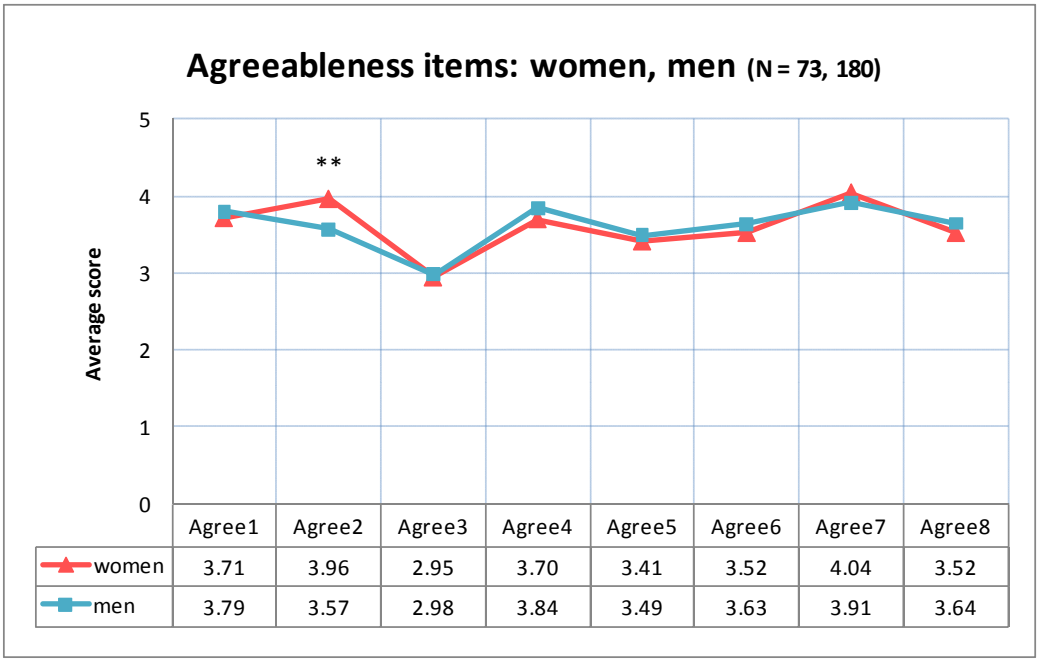
APPENDIX 9

Item Averages Grouped by Gender of the Validation Sample



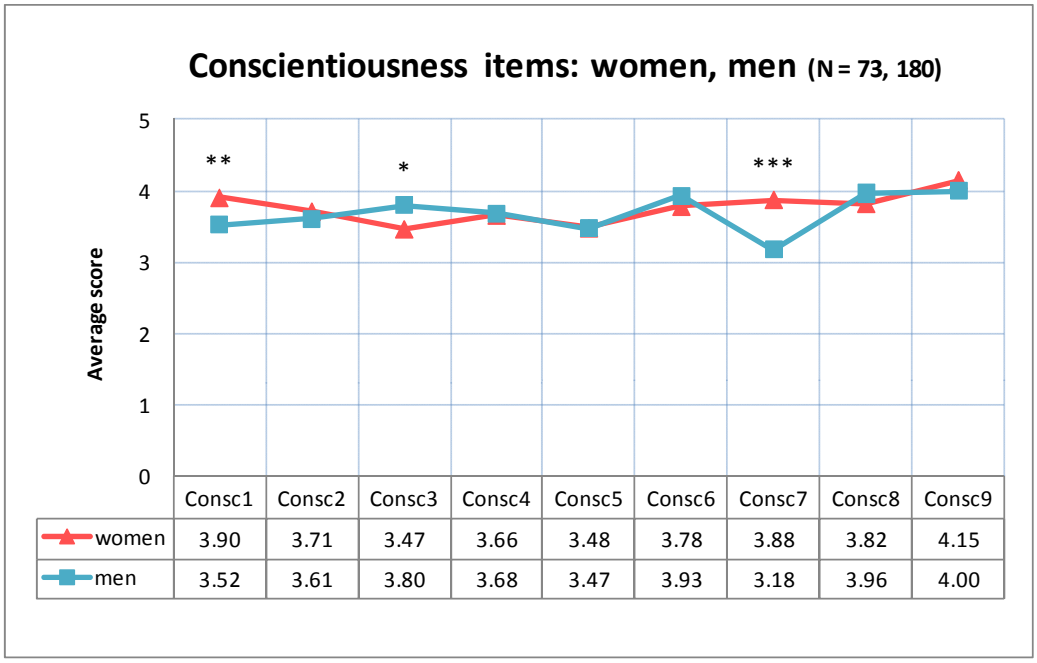
	Extra1	Extra2	Extra3	Extra4	Extra5	Extra6	Extra7	Extra8
women	3.40	2.00	3.62	3.29	3.59	2.77	3.11	3.25
men	3.19	2.02	3.21	3.22	3.38	2.97	3.23	3.39

Figure. Extraversion Item Average Scores Grouped by Sample



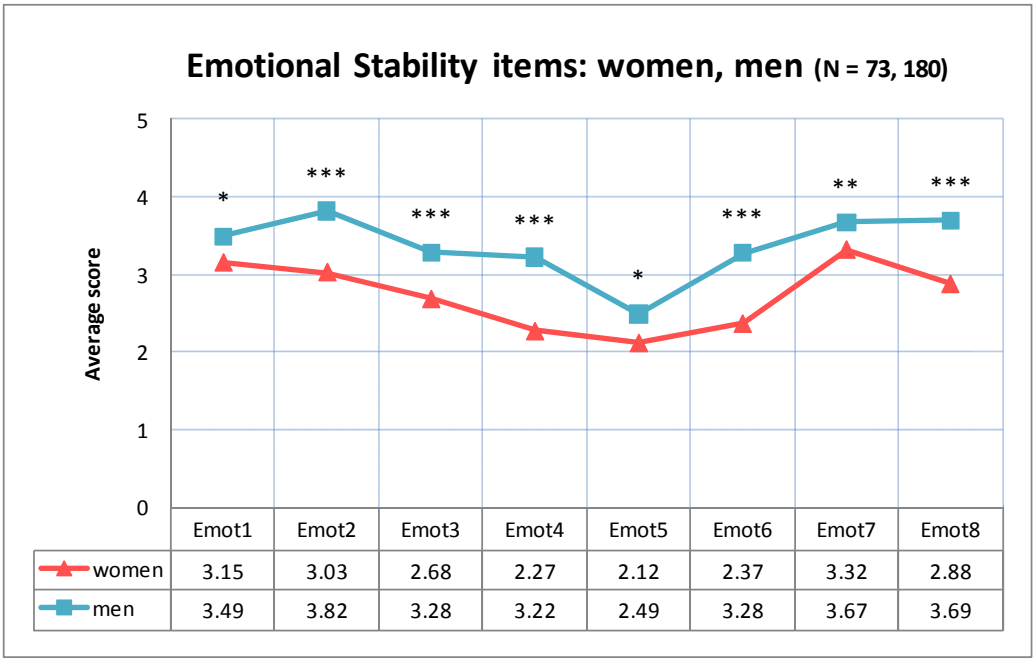
	Agree1	Agree2	Agree3	Agree4	Agree5	Agree6	Agree7	Agree8
women	3.71	3.96	2.95	3.70	3.41	3.52	4.04	3.52
men	3.79	3.57	2.98	3.84	3.49	3.63	3.91	3.64

Figure. Agreeableness Item Average Scores Grouped by Sample



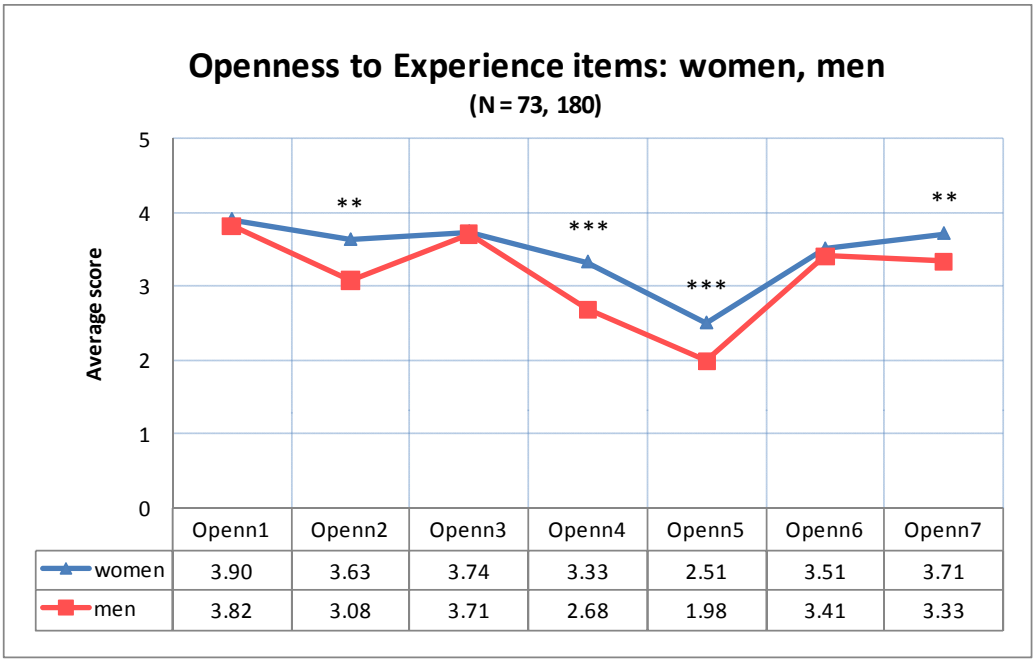
	Consc1	Consc2	Consc3	Consc4	Consc5	Consc6	Consc7	Consc8	Consc9
women	3.90	3.71	3.47	3.66	3.48	3.78	3.88	3.82	4.15
men	3.52	3.61	3.80	3.68	3.47	3.93	3.18	3.96	4.00

Figure. Conscientiousness Item Average Scores Grouped by Sample



	Emot1	Emot2	Emot3	Emot4	Emot5	Emot6	Emot7	Emot8
women	3.15	3.03	2.68	2.27	2.12	2.37	3.32	2.88
men	3.49	3.82	3.28	3.22	2.49	3.28	3.67	3.69

Figure. Emotional Stability Item Average Scores Grouped by Sample



	Openn1	Openn2	Openn3	Openn4	Openn5	Openn6	Openn7
women	3.90	3.63	3.74	3.33	2.51	3.51	3.71
men	3.82	3.08	3.71	2.68	1.98	3.41	3.33

Figure. Openness to Experience Item Average Scores Grouped by Sample

APPENDIX 10

Goodness of Fit Statistics of the Personality Inventory Factor Structure of the Final Model and Based on the Validation Sample

Index	Final Model	Validation Sample
Goodness of Fit Index (GFI)	.84	.80
GFI Adjusted for Degrees of Freedom (AGFI)	.77	.71
Root Mean Square Residual (RMR)	.048	.051
Parsimonious GFI (Mulaik, 1989)	.63	.59
Chi-Square	1257	1235
Chi-Square DF	580	580
RMSEA Estimate	.058	.067
RMSEA 90% Lower Confidence Limit	.053	.062
RMSEA 90% Upper Confidence Limit	.062	.076
Bentler's Comparative Fit Index (CFI)	.81	.78
Bentler & Bonett's (1980) Non-normed Index	.74	.71
Bentler & Bonett's (1980) NFI	.70	.67
James, Mulaik, & Brett's (1982) Parsimonious NFI	.52	.50

APPENDIX 11

Key Account Manager Questionnaire Cover Letter

TAMPEREEN TEKNILLINEN YLIOPISTO
Teollisuustalouden laitos

Arvoisa Avainasiakaspäällikkö

Teidät on valittu vastaamaan kyselyyn, jonka avulla on tarkoitus tutkia avainasiakastyötä tekevien ihmisten persoonallisuuksia, työhyvinvointia ja asiakkuudenhallintatyötä. Kysely on osa väitöskirjatutkimusta, joka toteutetaan Tampereen teknillisessä yliopistossa teollisuustalouden laitoksella. Tutkimustulosten luotettavuuden ja koko väitöskirjatutkimuksen onnistumisen kannalta **jokainen vastaus on äärimmäisen tärkeä**.

Kaikki saadut vastaukset käsitellään nimettöminä ja ehdottoman luottamuksellisina. Antamanne tutkimusvastaukset liitetään tilastolliseen kokonaisuuteen, josta yksittäistä vastausta ei voi tunnistaa. Yhteystietonne on saatu Fonectan ProFinder B2B palvelusta.

Pyytäisin Teitä vastaamaan oheiseen kyselyyn **mahdollisimman pian, viimeistään perjantaina 21.11.** Vastaamiseen kuluu aikaa noin 20 minuuttia. Jos haluatte lisätietoa kyselyyn tai vastaamiseen liittyen, niin voitte ottaa minuun yhteyttä alla olevien yhteystietojen avulla.

Palautuskuoren postimaksu on maksettu puolestanne, joten Teidän tarvitsee vain postittaa täytetty lomake oheisessa palautuskuoressa.

Tuhannet kiitokset jo etukäteen vaivannäöstänne!

Kunnioittaen,

Tommi Mahlamäki

Tommi Mahlamäki, Lehtori, DI, MBA
Tampereen teknillinen yliopisto, teollisuustalous
PL541, 33101 Tampere
puhelin: 0500 866 641
sähköposti: tommi.mahlamaki@tut.fi

Postiosoite
PL 541
33101 TAMPERE

Käyntiosoite
Korkeakoulunkatu 8
33720 TAMPERE

Puhelin (työ)
(03) 3115 3652

Telefax
(03) 3115 2027

APPENDIX 12

Key Account Manager Questionnaire Reminder Letter

TAMPEREEN TEKNILLINEN YLIOPISTO
Teollisuustalouden laitos

Arvoisa Key Account Manager

Lähestyin kaksi viikkoa sitten suomalaisia avainasiakaspäälliköitä tutkimuksen merkeissä, jonka tarkoituksena on kartoittaa persoonallisuutta, työhyvinvointia ja asiakkuudenhallintatyötä. Kiitoksia heti alkuun kaikille teille jo vastauksensa postittaneille! Vastauksia on saapunut minulle kohtuullisesti, silti tutkimuksen luotettavuuden kannalta vastausmäärän kasvattaminen olisi **ensiarvoisen tärkeää**.

Jos ette ole vielä kerinneet vastaustanne postittamaan, olisi hienoa jos voisitte sen tehdä mahdollisimman pian. Aineiston tallennustyö on alkanut, mutta lisävastauksia voidaan vielä odottaa muutaman päivän ajan.

Jos olette hukanneet kyselyn tai jos haluatte mieluummin täyttää kyselyn Internetissä, niin löydätte tutkimuksen myös osoitteesta http://www.tut.fi/~bruce/kam

(~ merkki www-osoitteessa tulee näkyviin painamalla samanaikaisesti Alt Gr +  ja tämän jälkeen välilyönti)

Kiitokset vielä kaikille Teille panoksestanne tutkimustyöni hyväksi!

Kunnioittaen,

Tommi Mahlamäki

Tommi Mahlamäki, Lehtori, DI, MBA
Tampereen teknillinen yliopisto, teollisuustalous
PL541, 33101 Tampere

puhelin: 0500 866 641
sähköposti: tommi.mahlamaki@tut.fi

Postiosoite
PL 541
33101 TAMPERE

Käyntiosoite
Korkeakoulunkatu 8
33720 TAMPERE

Puhelin (työ)
(03) 3115 3652

Telefax
(03) 3115 2027

APPENDIX 13

Key Account Manager Questionnaire

Vastaajan perustietoja

1. Sukupuoli? ☐ Nainen ☐ Mies

2. Syntymävuosi? _____

3. Kuinka pitkä on työkokemuksenne edustamanne yrityksen palveluksessa? _____ vuotta

4. Kuinka pitkä on työkokemuksenne asiakassuhteiden hallinnan parissa? _____ vuotta

5. Mikä on korkein suorittamanne tutkinto?

☐ Peruskoulu tai vastaava
☐ Ammatillinen tutkinto
☐ Lukio
☐ Opistotutkinto
☐ Alempi korkeakoulututkinto
☐ Ylempi korkeakoulututkinto
☐ Muu, mikä? _____

Työnantajanne perustietoja (Jos edustamallanne yrityksellä on useita liiketoimintayksikköjä tai yritys toimii monikansallisesti, niin voitte halutessanne vastata ainoastaan oman liiketoimintayksikkönne näkökulmasta.)

6. Mistä näkökulmasta vastaatte seuraaviin kysymysiin?

☐ Koko yrityksen näkökulmasta ☐ Oman liiketoimintayksikön näkökulmasta

7. Kuinka monta työntekijää edustamassanne yrityksessä/yksikössä on yhteensä?

☐ 1 – 10 henk. ☐ 11 – 50 henk. ☐ 51 – 100 henk. ☐ 101 – 250 henk. ☐ Yli 250 henk.

8. Kuinka suuri on edustamanne yrityksen/yksikön liikevaihto?

☐ Alle 100 000 € ☐ 100 000 – 999 999 € ☐ 1 milj. – 20 milj. € ☐ Yli 20 milj. €

9. Kuinka monta avainasiakasta edustamallanne yrityksellä/yksiköllä on?

☐ 1 – 5 kpl ☐ 6 – 10 kpl ☐ 11 – 30 kpl ☐ 31 – 50 kpl ☐ Yli 50 kpl

10. Kuinka iso osa edustamanne yrityksen/yksikön asiakkaista on avainasiakkaita?

☐ 0 – 5 % ☐ 6 – 10 % ☐ 11 – 20 % ☐ 21 – 50 % ☐ Yli 50 %

11. Edustamani yrityksen/yksikön avainasiakkaiden määrä on viimeisen vuoden aikana?

☐ Vähentynyt ☐ Pysynyt samana ☐ Kasvanut

12. Kuinka hyvin mielestänne seuraavat väittämät kuvaavat edustamaanne yritystä? (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
a) Yrityksellämme on riittävästi asiakkuudenhallintatyötä tekeviä ihmisiä tulostavoitteisiin nähden.	1	2	3	4	5
b) Yrityksemme asiakkaat ovat hyvin tyytyväisiä heille tarjoamaamme tuotteeseen/palveluun.	1	2	3	4	5

1

... Kuinka hyvin mielestänne seuraavat väittämät kuvaavat edustamaanne yritystä? (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
c) Yrityksemme jakaa avoimemmin tietoa avainasiakkaiden kuin tavallisten asiakkaidensa kanssa.	1	2	3	4	5
d) Yrityksemme käyttää jatkuvasti paljon resursseja uusien asikkaiden saamiseksi.	1	2	3	4	5
e) Yrityksemme pyrkii palvelemaan avainasiakkaitaan paremmin kuin tavallisia asiakkaita.	1	2	3	4	5

13. Kuinka monta avainasiakasta juuri Teidän vastuullanne on?

☐ 1 – 2 kpl ☐ 3 – 5 kpl ☐ 6 – 10 kpl ☐ 11 – 20 kpl ☐ Yli 20 kpl

14. Ovatko vastuullanne olevat avainasiakkaat pääosin?

☐ Yrityksiä ☐ Julkisia organisaatioita ☐ Yksityisiä henkilöitä

15. Onko työnne lähinnä?

☐ Asiakkuuksien hallintaa ☐ Myyntityötä ☐ Muuta, mitä? _____

16. Kuinka kauan vastuullanne oleva tyypillinen (keskimääräinen) avainasiakassuhde on kestänyt?

☐ Alle vuoden ☐ 1 – 2 v. ☐ 3 – 5 v. ☐ 6 – 10 v. ☐ Yli 10 v.

17. Kuinka suuri osa työajastanne kuluu uusien avainasiakassuhteiden luomiseen?

☐ 0 – 20 % ☐ 21 – 40 % ☐ 41 – 60 % ☐ 61 – 80 % ☐ 81 – 100 %

18. Kuinka suuri osa vastuullanne olevista avainasiakkaista on uusia (asiakassuhde on kestänyt alle vuoden)?

☐ 0 – 20 % ☐ 21 – 40 % ☐ 41 – 60 % ☐ 61 – 80 % ☐ 81 – 100 %

19. Kuinka usein olette kontaktissa tyypillisen (keskimääräisen) avainasiakkaan kanssa?

☐ Useita kertoja viikossa ☐ Kerran viikossa ☐ Kerran kuukaudessa ☐ Kerran puolessa vuodessa ☐ Harvemmin

Persoonallisuus

Seuraavassa osiossa esitetään väittämiä, jotka kuvaavat tiettyä ajatus- tai toimintatapaa. Valitkaa jokaiseen väittämään juuri Teitä parhaiten kuvaava vastausvaihtoehto. Pyrkikää ajattelemaan itseänne sellaisena kuin tällä hetkellä olette, älkää miettikö sitä millainen haluaisitte olla tulevaisuudessa tai millaisena muut ihmiset näkevät Teidät.

20. Mitä mieltä olette seuraavista väittämistä? (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
a) Epäjärjestys häiritsee minua.	1	2	3	4	5
b) Kokeilen mielelläni uusia asioita.	1	2	3	4	5
c) Luotan muihin ihmisiin.	1	2	3	4	5
d) Harrastan mielelläni asioita, joissa voin olla muiden ihmisten seurassa.	1	2	3	4	5
e) Olen tunnollinen kaikessa tekemisessäni.	1	2	3	4	5
f) Uskon, että taiteilla on tärkeä rooli.	1	2	3	4	5
g) Teen mieluiten asioita, jotka ovat minulle tuttuja.	1	2	3	4	5

... **Mitä mieltä olette seuraavista väittämistä?** (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
h) Minua ei kiinnosta mitä työtoverini ajattelevat työssä-suoriutumisestani.	1	2	3	4	5
i) Minulla on vilkas mielikuvitus.	1	2	3	4	5
j) Joskus minua ärsyttävät ihmiset, jotka pyytävät minulta palveluksia.	1	2	3	4	5
k) En harkitse sanomisiani ennakkoon.	1	2	3	4	5
l) Liikutun helposti kauniista musiikista.	1	2	3	4	5
m) Otan epäselvissä tilanteissa helposti johdot käsiini.	1	2	3	4	5
n) Voisin jättää auton pysäköintimaksun maksamatta.	1	2	3	4	5
o) En jännitä paljoakaan juhlapuheen pitämistä.	1	2	3	4	5
p) Arvostan suuresti runoutta.	1	2	3	4	5
q) Tunnen, että pystyn hoitamaan asian kuin asian.	1	2	3	4	5
r) Teen työtehtäväni aina ajallaan.	1	2	3	4	5
s) Haluan oppia jatkuvasti jotain uutta työstäni.	1	2	3	4	5
t) Minun on helppo tutustua uusiin ihmisiin.	1	2	3	4	5
u) En ole kiinnostunut muiden ihmisten ongelmista.	1	2	3	4	5
v) Minusta tuntuu hyvältä suoriutuessani työtovereitani paremmin.	1	2	3	4	5
w) Joskus minusta tuntuu, että ihmiset ovat ansainneet kokemansa epäonnen.	1	2	3	4	5

21. Mitä mieltä olette seuraavista väittämistä? (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
a) Suunnittelen tekemiseni tarkkaan.	1	2	3	4	5
b) Annan yleensä toisten tehdä päätökset.	1	2	3	4	5
c) Työssäni ei ole minulle enää paljoa uutta opittavaa.	1	2	3	4	5
d) Olen yleensä se osapuoli, joka aloittaa keskustelun.	1	2	3	4	5
e) Arvostan itseäni ihmisenä.	1	2	3	4	5
f) Yritän aina viestiä onnistumisistani esimiehelleni.	1	2	3	4	5
g) Nautin kunnon mielikuvitusmatkasta.	1	2	3	4	5
h) Suutun hyvin harvoin.	1	2	3	4	5
i) Näen paljon vaivaa uusien asioiden oppimisen eteen.	1	2	3	4	5
j) Olen joskus käyttänyt muita ihmisiä hyväkseni.	1	2	3	4	5
k) Viihdyn paremmin muiden seurassa kuin yksin.	1	2	3	4	5
l) Teen asioita ajattelematta niiden seurauksia.	1	2	3	4	5
m) Olen todella harvoin tuntenut, että käskisin jotain ihmistä lähtemään pois.	1	2	3	4	5
n) Minun on helppo soittaa puhelimella tuntemattomille ihmisille.	1	2	3	4	5
o) Mielestäni hyvän työntekijän tulee jatkuvasti kehittää itseään.	1	2	3	4	5
p) Minun on vaikea kestää muiden ihmisten minuun kohdistamaa arvostelua.	1	2	3	4	5

... **Mitä mieltä olette seuraavista väittämistä?** (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
q) Saan paljon tyydytystä suoriuduttuani vaikeasta työtehtävästä.	1	2	3	4	5
r) Minua ei häiritse se, että ihmiset pyytävät minulta vastapalveluksia.	1	2	3	4	5
s) Tavaroiden sekaisuus asunnossani ei häiritse minua.	1	2	3	4	5
t) Olen hyvä kuuntelija riippumatta siitä kenen kanssa keskustelen.	1	2	3	4	5
u) Oppiminen paremmaksi työssäni on minulle ensiarvoisen tärkeää.	1	2	3	4	5
v) Harkitsen päätöksiäni huolella.	1	2	3	4	5
w) Jos en tiedä jotain asiaa, voin helposti tunnustaa sen.	1	2	3	4	5

22. Mitä mieltä olette seuraavista väittämistä? (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
a) Joskus pyrin kostamaan ihmisille ennemmin kuin antaisin heille anteeksi.	1	2	3	4	5
b) Minulle on tärkeää, että esimieheni pitää minua hyvänä työntekijänä.	1	2	3	4	5
c) Teen mieluummin töitä yksin kuin ryhmässä.	1	2	3	4	5
d) Noudatan sääntöjä parhaani mukaan.	1	2	3	4	5
e) Asiakaspalaute on minulle erittäin tärkeä oppimisen väline.	1	2	3	4	5
f) Luotan muiden ihmisten sanaan.	1	2	3	4	5
g) Mietin paljon sitä kuinka hyvin työtoverini suoriutuvat minuun verrattuna.	1	2	3	4	5
h) Minua on helppo satuttaa henkisesti.	1	2	3	4	5
i) Koetan kehittää itseäni esimieheni käyttämien arviointikriteerien mukaan.	1	2	3	4	5
j) Jännitän paljon tärkeitä tapaamisia.	1	2	3	4	5
k) Työtaitojen oppimiseen kannattaa panostaa paljon aikaa.	1	2	3	4	5
l) Jos lainaan kirjan kirjastosta, palautan sen aina ajallaan takaisin.	1	2	3	4	5
m) Pystyn helposti vaikuttamaan muihin ihmisiin.	1	2	3	4	5
n) Näen kauneutta asioissa, jota muut eivät ehkä huomaa.	1	2	3	4	5
o) Ryhmässä asioiden suunnittelu on helpompaa kuin yksin.	1	2	3	4	5
p) En ole koskaan tarkoituksella sanonut jotain, joka loukkaisi toisten tunteita.	1	2	3	4	5
q) Epäilen usein muita ihmisiä valehtelusta.	1	2	3	4	5
r) Huolestun helposti pienistäkin asioista.	1	2	3	4	5
s) Joskus minusta tuntuu siltä, että haluaisin hajottaa esineitä.	1	2	3	4	5
t) Haluan, että työtoverini näkevät minut hyvänä siinä mitä teen.	1	2	3	4	5
u) Opin jatkuvasti jotain uutta yritykseni asiakkaista.	1	2	3	4	5
v) Pysyn rauhallisena haastavissakin tilanteissa.	1	2	3	4	5
w) Ruuanlaiton jälkeen siivoan heti jälkeni.	1	2	3	4	5
x) Pidän muiden auttamisesta.	1	2	3	4	5
y) Minun on helppo sanoa vastaan muille ihmisille.	1	2	3	4	5

4

... **Mitä mieltä olette seuraavista väittämistä?** (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
z) En ärsyynny helposti.	1	2	3	4	5
å) Uskon, että ihmisillä on yleensä hyvät tarkoitusperät.	1	2	3	4	5
ä) Pyrin aktiivisesti saamaan palautetta työsuorituksistani.	1	2	3	4	5
ö) Työssä tekemäni virheet ovat vain osa oppimisprosessia.	1	2	3	4	5

Työhyvinvointi

23. Kuinka hyvin mielestänne seuraavat väittämät pitävät paikkansa? (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
a) Esimieheni johtamistyylissä on paljon parantamisen varaa.	1	2	3	4	5
b) Koen työnteon yleisesti ottaen mielekkääksi.	1	2	3	4	5
c) Olen fyysisesti hyvässä kunnossa.	1	2	3	4	5
d) Oma osaamiseni vastaa hyvin työni vaatimuksia.	1	2	3	4	5
e) Työn tekemisellä on iso merkitys elämässäni.	1	2	3	4	5
f) Työyhteisössämme vallitsee hyvä ilmapiiri.	1	2	3	4	5

24. Mikä seuraavista vaihtoehdoista kuvaa parhaiten työhyvinvointianne viimeisen kuukauden ajalta?

☐ Erittäin huono ☐ Melko huono ☐ Kohtalainen ☐ Melko hyvä ☐ Erittäin hyvä

25. Kuinka työhyvinvointinne on kehittynyt viimeisen vuoden aikana?

☐ Huonontunut ☐ Pysynyt samana ☐ Parantunut

26. Kuinka paljon seuraavilla tekijöillä voisi vaikuttaa positiivisesti omaan työhyvinvointiinne? (ympyröikää jokaiseen tekijään parhaiten sopiva vaihtoehto)	**Ei lainkaan**	**Ei kovin paljon**	**Kohta-laisesti**	**Melko paljon**	**Erittäin paljon**
a) Haasteelliset työtehtävät	1	2	3	4	5
b) Kehitysmahdollisuudet työssä	1	2	3	4	5
c) Mahdollisuus keskustella työntekemisen ongelmakohdista esimiesten kanssa	1	2	3	4	5
d) Mahdollisuus työpaikkaliikuntaan	1	2	3	4	5
e) Mahdollisuus vaikuttaa omaan työnkuvaan	1	2	3	4	5
f) Mielekkäät työtehtävät	1	2	3	4	5
g) Miellyttävä työympäristö	1	2	3	4	5
h) Mukavat työkaverit	1	2	3	4	5
i) Riittävät ajalliset resurssit töiden tekemiseen	1	2	3	4	5
j) Selkeästi määritellyt työvastuut	1	2	3	4	5
k) Työhön nähden hyvä palkka	1	2	3	4	5
l) Työn vaatimuksiin nähden riittävä koulutus	1	2	3	4	5
m) Varmuus työsuhteen jatkumisesta	1	2	3	4	5
n) Muu, mikä? _____	1	2	3	4	5

27. Mitkä tekijät ovat mielestänne kaikkein tärkeimpiä työhyvinvoinnin kannalta?
_____
_____
_____

28. Kuinka paljon mielestänne seuraavat tekijät vaikuttavat työn stressaavuuteen? (ympyröikää jokaiseen tekijään parhaiten sopiva vaihtoehto)	**Ei lainkaan**	**Ei kovin paljon**	**Kohta-laisesti**	**Melko paljon**	**Erittäin paljon**
a) Huono työilmapiiri	1	2	3	4	5
b) Huonot johtamistavat	1	2	3	4	5
c) Jatkuva kiire	1	2	3	4	5
d) Jatkuvat muutokset työympäristössä	1	2	3	4	5
e) Liian suuri työmäärä	1	2	3	4	5
f) Riittävän koulutuksen puute	1	2	3	4	5
g) Töiden epätasainen kasautuminen	1	2	3	4	5
h) Muu, mikä?	1	2	3	4	5

Asiakkuuksien hallinta

29. Kuinka hyvin mielestänne seuraavat väittämät kuvaavat asiakkuudenhallintatyötänne? (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
a) Olen saanut paljon positiivista asiakaspalautetta...					
asiakkaani tarpeiden viestittämisestä omalle organisaatiolleni.	1	2	3	4	5
kyvystäni saada muut organisaationi edustajat palvelemaan hyvin asiakastani.	1	2	3	4	5
luovista ratkaisuistani asiakkaan ongelmien ratkaisemisessa.	1	2	3	4	5
uusien lähestymistapojen kokeilemisesta asiakkaan palvelemisessa.	1	2	3	4	5
b) Hoitamissani asiakassuhteissa viestintä on toiminut...					
hyvin asiakkaalta minun suuntaani.	1	2	3	4	5
hyvin minulta asiakkaan suuntaan.	1	2	3	4	5
selkeästi eikä ole aiheuttanut väärinymmärryksiä.	1	2	3	4	5
c) Käsitykseni mukaan asiakkaitteni mielestä...					
hoidan työni tunnollisesti.	1	2	3	4	5
kaikissa toimissani ajattelen asiakkaan parasta.	1	2	3	4	5
olen aina rehellinen asiakkaalle.	1	2	3	4	5
d) Työssäni olen...					
tehnyt kaikkeni sen eteen, että asiakkaani jatkaisivat yhteistyötä edustamani organisaation kanssa vielä pitkään.	1	2	3	4	5
luonut yritykseni kannalta merkityksellisiä asiakassuhteita.	1	2	3	4	5
rakentanut asiakassuhteita, jotka tulevat kestämään senkin jälkeen, kun itse olen vaihtanut tehtäviä.	1	2	3	4	5

30. Kuinka hyvin mielestänne seuraavat väittämät kuvaavat omaa työntekoanne? (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
a) Asiakkaitteni liiketoiminnan ymmärtäminen on minulle tärkeää.	1	2	3	4	5
b) Asiakkailtani saama palaute on aina hyvää.	1	2	3	4	5
c) Hoitamani asiakkaat ovat yritykselleni taloudellisesti tärkeitä.	1	2	3	4	5
d) Joskus saan asiakkailtani huonoa palautetta.	1	2	3	4	5
e) Kollegat pitävät minua hyvänä työntekijänä.	1	2	3	4	5
f) Minulla on suuri vaikutus yritykseni menestymiseen markkinoilla.	1	2	3	4	5
g) Pyrin jatkuvasti oppimaan uutta asiakkaistani.	1	2	3	4	5
h) Saan esimieheltäni aina positiivista palautetta.	1	2	3	4	5
i) Ylitän minulle asetetut tulostavoitteet.	1	2	3	4	5

31. Millainen on oma suoriutumisenne keskivertokollegaan verrattuna seuraavilla osa-alueilla? (ympyröikää jokaiseen kohtaan parhaiten sopiva vaihtoehto)	**Paljon keski-vertoa huonompi**	**Keski-vertoa huonompi**	**Samalla tasolla**	**Keski-vertoa parempi**	**Paljon keski-vertoa parempi**
a) Asiakassuhteiden kehittäminen	1	2	3	4	5
b) Saatu asiakaspalaute	1	2	3	4	5
c) Suoriutuminen asiakkaan palvelemisessa	1	2	3	4	5
d) Tilausten määrän kasvattaminen	1	2	3	4	5
e) Tilausten määrän saaminen pysymään entisellä tasollaan	1	2	3	4	5
f) Uusien asiakassuhteiden luominen	1	2	3	4	5

32. Kuinka paljon seuraavat tekijät mielestänne vaikuttavat positiivisesti asiakastyössä menestymiseen? (ympyröikää jokaiseen tekijään parhaiten sopiva vaihtoehto)	**Ei lainkaan**	**Ei kovin paljon**	**Kohta-laisesti**	**Melko paljon**	**Erittäin paljon**
a) Hyvät kommunikaatiotaidot	1	2	3	4	5
b) Luottamuksen rakentaminen asiakasta kohtaan	1	2	3	4	5
c) Miellyttävä työympäristö	1	2	3	4	5
d) Oman organisaation asiakaslähtöinen toimintamalli	1	2	3	4	5
e) Oman työn vaatimuksiin nähden riittävä koulutus	1	2	3	4	5
f) Omien toimintatapojen mukauttaminen eri asiakkaita varten	1	2	3	4	5
g) Riittävät resurssit asiakassuhteiden hoitamiseen	1	2	3	4	5
h) Työhyvinvointi	1	2	3	4	5
i) Työhön nähden hyvä palkka	1	2	3	4	5

33. Mitkä tekijät ovat mielestänne kaikkein tärkeimmät asiakastyössämenestymisen kannalta?

Vastatkaa seuraavaan kysymykseen, jos edustamanne yritys käyttää bonuspalkkausjärjestelmää.

34. Mitä mieltä olette seuraavista edustamanne yrityksen bonuspalkkausjärjestelmään liittyvistä väitteistä? (ympyröikää jokaiseen väittämään parhaiten sopiva vaihtoehto)	**Täysin eri mieltä**	**Osittain eri mieltä**	**Ei samaa eikä eri mieltä**	**Osittain samaa mieltä**	**Täysin samaa mieltä**
a) Bonuspalkkausjärjestelmä nostaa työmotivaatiotani.	1	2	3	4	5
b) Bonuspalkkausjärjestelmä on oikeudenmukainen.	1	2	3	4	5
c) Bonuspalkkausjärjestelmä on riittävän selkeä.	1	2	3	4	5
d) Bonuspalkkausjärjestelmä on työhyvinvoinnin kannalta positiivinen asia.	1	2	3	4	5
e) Bonuspalkkausjärjestelmä toimii hyvin yrityksessämme.	1	2	3	4	5
f) Olen tyytyväinen omaan bonuspalkkaani.	1	2	3	4	5
g) Pystyn vaikuttamaan riittävästi oman bonukseni muodostumiseen.	1	2	3	4	5

35. Onko Teillä vielä jotain kommentoitavaa tähän kyselyyn tai sen aiheisiin liittyen?

Kiitos paljon vaivannäöstänne!