Master Thesis

The Big Five dimensions and Individual creativity:

"The influence of the contextual factors autonomy, supervisory support, and conflict"

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Preface

With great pleasure I have worked on this thesis as completing my study Master of Science in Business Administration at the Rotterdam School of Management (RSM) Erasmus University Rotterdam (EUR). After two years of hard work this master thesis in strategic management is an end mark of a period where I gained a lot of knowledge and insights. The whole period was inspiring and motivating experience which I will never forget.

This thesis is a reflection of my interest in organizations, leadership, and people. From my own experience as a manager, I am convinced that people in organizations make the difference. People in any job and at any level spurs creativity. They only must have the motivation to do so. Through this thesis I have acquired more knowledge about creativity, personality traits, autonomy, supervisory support, and conflict which I will benefit from during my career as a manager.

All this could never been done without help of others. Therefore I would like to thank my coach Prof. Dr. Justin Jansen for his feedback and putting me on the right track at the start of this thesis. My co-reader Dr. Niek Hoogervorst, I would like to thank for his feedback, his lecture and private lesson concerning statistics. I also would like to thank all the participants of the survey, and the other students for their help.

Finally, I especially would like to thank my wife for her never ending support, and motivation. Without her I would never started or finished the study.

With kind regards,

Patrick Platschorre

Executive summary

Creativity is the development of something new and useful to the organization. In this rapidly changing world organizations survive by constantly inventing new products, services, and procedures. And individual employees who work alone or in teams make that happen. Therefore individual creativity, and that what prospers creativity is very important. But what enhances creativity? This research aims to contribute to the understanding of what enhances creativity. This by looking at the relation between the Big Five personality dimensions (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism) and individual creativity and which of the contextual factors; autonomy, supervisory support, and conflict moderates that relation in order to enhance individual creativity.

The past literature shows that people with high extraversion and openness to experience are more creative. While the other three dimensions show divergent results. The literature concerning autonomy, supervisory support, and conflict shows that they all have a moderating effect on individual creativity. But what is the moderating effect on the Big Five personality dimensions of these contextual factors to enhance creativity?

The results of a survey performed amongst a sample of 153 employees working in different kind of Dutch organizations at different kind of levels indicate that high levels of perceived autonomy positive moderates two personality traits namely extraversion and openness to experience in such a way that it enhances individual creativity. On the other hand a high level of autonomy and a high level of neuroticism decreases individual creativity.

This study adds to the growing literature to the field of the Big Five personality traits and individual creativity by providing evidence of the moderating effect of perceived autonomy on the relation between the Big Five personality traits and individual creativity. So an increased understanding of the influence of contextual factors has been accomplished. However, the relation is more complex than at first sight. It all depends on the kind of level of autonomy. Which means there is still more to learn about the influences of contextual factors. This is a very good reason to conduct future research given the importance of creativity.

Keywords: *Big Five, openness to experience, conscientiousness, extraversion, agreeableness, neuroticism, creativity, individual creativity, perceived autonomy, perceived supervisory support, perceived conflict*

Content

1 Introduction

Just think about a world without any creativity. How would that world look like? Just imagine a world without any cars, computers, Apple products, internet, rockets, satellites, art, fire. Just the sun and your cave? To some people that sounds ideal but to the vast majority of people there is only one way and that is the way of going forward. Of course progress and the prosperity which comes with that has also detrimental effects. Gunpowder, the nuclear bomb, the waste and pollution in the world. You really don't want to think about that. But I truly believe that the world is becoming a better place for all people and animals. Some people believe that the world comes to an end. There is just too much war going on, too much natural disasters. I do agree on the last bit but I believe we can change the world into a place that we want it to be. A better place than it was yesterday. But what do you need to make that happen? Besides a lot of other things like, courage, motivation, and inspiration the one that really can change things is creativity.

Creativity is not only just for artists. It is for everybody in the world. For engineers trying to solve a problem; for parents who want their children to see the world in more than one way, for businesspeople looking for a new way to close a sale, for product designers, architects and so on.

The sector creative industry is the most dynamic sector of the Dutch economy. The creative industries (such as design, media and entertainment, fashion, gaming and architecture) are a driver of innovation in other sectors. They provide creative solutions for societal challenges in areas such as healthcare, security and energy. The Dutch creative industry is internationally a top 10 player. Due to international companies like Endemol, G-star, Guerilla Games, Layar and Droog Design.

In 2013 the creative industry in the Netherlands consists of more than 285 thousand jobs. That is 3.6 percent of the total number of jobs in the Netherlands. Of these, 102 thousand are found in arts and heritage, 95 thousand in creative services and 88 thousand in the media and entertainment industry. In the period 2005-2013 the creative industries grew annually by an average of 2.5 percent (over fifty thousand jobs). This growth exceeds the average job growth in the Netherlands by 0.6 percent for that period. In the last years of this period (2011-2013) the development of the sector stagnates. The creative industry shrinks yearly by 0.1 percent. The total amount of jobs in the Netherlands is increasing annually with 0.9 percent in that period. The number of businesses in the creative industries has doubled in the period 2005-2013 (Immovator, 2014).

Creativity is important in a variety of sectors, occupations and tasks. In today's fast paced dynamic environment organizations realize, to remain competitive, that they must continue to actively engage employees in their work and try to create new and appropriate products, processes and approaches. Although renewal requires some level of creativity and the importance of creativity may differ depending on the task or job in question, I believe that there is room, in almost every job, for employees to be more creative. As a manager I always look for possibilities to enhance creativity of my employees and also of myself.

Creativity refers to the development of novel, potentially useful ideas. And only when the ideas are successfully implemented at the organization or unit level they would be considered innovation (Amabile T. , 1996; Mumford & Gustafson, Creativity syndrome: Integration, application, and innovation. Psychological Bulletin,, 1988) Therefore, creativity might best be conceptualized as a first step that is necessary for innovation (West & Farr, 1990) So to innovate, employees and also teams need to be creative.

Hon & Lui, (2016) argue that there are dominant theoretical models concerning creativity in the workplace. There is the model of individual creativity of Amabile (1988) and the interactional model of organizational creativity of Woodman et al. (1993). The main premise of the componential model is that work environments influences creativity by affecting components that contribute to creativity (Amabile, 1997) Three major components contribute to individual or small team creativity: expertise, creative thinking skill, and intrinsic motivation. So specific contextual factors positively or negatively influence individuals' intrinsic motivation, which in turn influences creative performance and innovation. The interactionist perspective of organizational creativity (Woodman, Sawyer, & Griffin, 1993) emphasizes that creativity is a complex interaction between individuals and work situations at different levels of organization. At the individual level, individual creativity is the result of personality cognitive style and ability, relevant knowledge, antecedent conditions (e.g., biographical variables) motivation, social influences and contextual influences (e.g., physical environment). At the team level, creativity is a consequence of individual creative behavior, the interaction between the group members, group characteristics, team processes, and contextual influences. At the organizational level, innovation is a result of both individual and group creativity. The interactionist perspective has been one of the most frequently used conceptual frameworks in emphasizing the interactions between the contextual and individual factors that might enhance or inhibit creativity at work (Shalley, Gilson, & Blum, 2009; Yuan & Woodman, 2010). Because of the multilevel and different kind of variables of creativity that interact you can conclude that creativity in organizations is a complex system. Studies are carried out at an individual level; like individual factors, task context, social context. Also at an individual level there were studies of the effect of individual values, self-concepts and identity, thinking

styles, knowledge, psychological states and traits. Individual-level research of Hon and Lu, (2015), Shalley et al., (2004), Amabile et al (1996) emphasized the importance of the interactions between individuals and their context. There are some examples of studies of how personal characteristics (such as personality traits and cognitive styles) and context characteristics (such as leadership relationships with supervisors and coworkers), interact to affect individual creativity and innovation. Also Woodman et al. (1993) stated that the interaction between personal and organizational factors affects creativity.

When you look at the personality traits there is only a small number of studies that have studied the Big Five personality characteristics. The studies that have carried out where focussing on one or two personality characteristics of the Big Five (e.g. Baer, 2010; Madjar, 2008; Baer & Oldham, 2006); George & Zhou, 2001). Not many much studies are conducted concerning all the Big Five characteristics. (Raja & Johns, 2010) did by examining how the Big Five interacted with job scope to affect creativity. Barrick and Moun (1991) studied the relationship of the Big Five characteristics with job performance, Zeidner (2009) in the field of learning and achievement.

Therefore, the current study is adding to the literature by focussing on the relation between personal characteristics and employee creativity, and the contextual factors perceived autonomy, perceived management support and conflict, which enhance or restrict creativity. By conducting this study it also will help organisations and managers to recognise which contextual factor moderates the personal characteristics in order to enhance creativity.

1.1 Research question

What is the relation between the Big Five dimensions and employee creativity and what is the moderating effect of perceived autonomy, perceived management support and perceived conflict?

Sub-questions:

- How does perceived autonomy moderate the relationship between the Big Five dimensions and employee creativity?
- How does perceived management support moderate the relationship between the Big Five dimensions and employee creativity?
- How does conflict moderate the relationship between the Big Five dimensions and employee creativity?

1.2 Thesis overview

In the next chapter the literature review will be outlined to construct several hypotheses to be tested in this study. To make it more visible what is going to be invested in the present study a research model will be presented. Chapter three will elaborate on the research methods such as the unit of analyses, sampling and measures used. Chapter four will present the findings and the analysis of the study. In the last chapter the conclusions with its limitations, future recommendations and implications of the study will be discussed.

2 Literature review

2.1 Individual Creativity

Individual creativity is an important determinant of performance, success and survival (Amabile, 1996). When employees exhibit creativity at work, they produce novel and useful ideas about organizational products, services procedures or practices (Shalley & Gilson, 2004). These creative ideas increases the likelihood that other employees will apply the ideas in their own work and further develop the ideas. Then they transfer them to other individuals in the organization for their own use and development. Because of the use and development of creative ideas it allows the organization to respond to opportunities, adjust to shifting market conditions, and thereby, to adapt, grow and compete (Nonaka, 1991; Oldham, 2002).

Besides the different kind of theoretical frameworks, mentioned in chapter one, there are also various definitions of creativity and different levels of analyses – individual, team, organizational, and multi-level- each with their own variable and dimensions. Appendix 1 shows a summary of the different levels, constructs and dimensions of creativity with the creativity research findings. Besides the complexity there is also the difference between creativity and another phenomena namely innovation. The difference between them is not always that clear. Some scholars argue that there is a strong differentiation between creativity and innovation (e.g.,Oldham & Cummings, 1996; Rank, Pace, & Frese, 2004). Other scholars argue that creativity not only occurs in the first stages of innovation, but they argue that creativity is a recursive process of idea generation and implementation (Van de Ven, Angle, & Poole, 1989; Paulus, 2002; King, 1992). West, (2002a, 2002b) stated that creativity can be seen as a part of innovative behaviour that is most evident in the first phase of the innovation process, where problems or performance gaps are recognized and ideas are generated in response to a perceived need for innovation. West, (2002a, 2002b) also suggests that the distinction between creativity and innovative behaviour is one of emphasis rather than substance. While Anderson, Potočnik, & Zhou, (2014) argue a more integrative definition of creativity and innovation. They stated that creativity and innovation are the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things. Where creativity refers to idea generation, and innovation refers to the subsequent stage of implementing ideas toward better procedures, practices, or products.

The present study clearly differentiate creativity from innovation. Creativity differs from innovation in that innovation refers to the implementation of ideas at the individual, group, or organizational level (Amabile T. , 1996; Anderson & King, 1993; Mumford & Gustafson, 1988; Baer, 2012).

Creativity is important in and of itself and can be conceptualized as a necessary first step or precondition required for innovation (Scott, 1995). While the difference between creativity and innovation is clear. Which definition will be used in the present study? The common definition in the literature of creativity is the development of ideas about products, practices, services or procedures that are novel and potentially useful to the organization (Amabile, 1996; Oldham & Cummings, 1996; West & Farr, 1990; Shalley & Zhou, 2008). Where *novel* is considered as if they are unique relative to other ideas currently available in the organization. Ideas are considered *useful* if they have the potential for direct or indirect value to the organization, in either the short- or long-term.

Walton, (2016) stated that there are two problems with the term novelty. First when does an idea fulfils the criterion of novelty? For example the big screen TV given that the television had already been invented? Or the internal combustion engine to the V8. A second problem with novelty that Walton distinguish is that of simultaneous invention by different people half a world apart. Jonas Salk will be forever labelled as the inventor of the polio vaccine and the more popular one invented by Albert Sabin at the same time will not. The term useful is also subjective. For example the work of Van Gogh now appears to be viewed as creative while in the time it was made it was not. Or the invention of the laser. At the time it probably not have passed the test of usefulness. Now we owe much to the laser. You can argue when something is novel and useful. When you ask employees about examples of novel and useful most of them think about major breakthroughs like, gunpowder, cars, telephones, rockets, computers and internet. They usually do not mention the incremental creative solutions. It also depends which company you work for or on the job in question. Organizations may desire more incremental creative solutions, while at other times it may be desirable to achieve more monumental breakthroughs. Also it depends on the kind of job. For example, the tasks performed by R&D professionals, major breakthroughs may be desirable and necessary. For the jobs of assembly line workers, an incremental change in how the work is done may be a desirable creative outcome ((Shalley & Gilson, 2004). Thus creativity could range from suggestions for incremental adaptations in procedures or products to radical, major breakthroughs in the development of new products or processes (Mumford & Gustafson, Creativity syndrome: Integration, application, and innovation. Psychological Bulletin,, 1988). In the present study the common definition of creativity and the range of creativity which is stated by (Mumford & Gustafson, 1988) will be combined. Creativity will be defined as:

> ***the development of ideas about products, practices, services or procedures that are novel and potentially useful to the organization and range from suggestions for incremental adaptations in procedures or products to radical, major breakthroughs in the development of new products or processes.***

This definition makes no assumptions between incremental vs. radical ideas. Also, the definition assumes that creative ideas may be generated by employees in any job and at any level of the organization (Madjar, Oldham, & Pratt, 2002).

2.2 Antecedents of individual creativity

As mentioned before creativity can be analysed at different kind of levels, variables, and dimensions. In this study it will be analysed at the individual level. Reasons for doing so is that creativity by individuals is a starting point for innovation (Amabile, 1996), and individual creativity provides the foundation for organizational creativity and innovation (Amabile, 1988). Also creative individuals identify original and new ways to accomplish some purpose (Amabile, 1988; Abbey & Dickson, 1983) and develop solutions to problems that are judged as both novel and appropriate for the situation (Shally, 1995). Now the level of creativity that will be analysed is clear, what are the antecedents of individual creativity? Because of the complexity of creativity many different antecedents of creativity can be analysed. Individual creativity is said to be a function of personality factors, expertise, cognitive style and ability, motivation, and social and contextual influences (Woodman, Sawyer, & Griffin, 1993). Individual employees who carry out the work of the organization every day come up with creative ideas. Therefore the focus of the present study will be on personality factors because the characteristics of someone's personality is expected to affect individuals' creativity.

Personality refers to a person's tendencies to behave, think and feel in a certain consistent way (Shiner & Caspi, 2003). There are two models that can be discerned to examine the effects of personality. First there is Gough's (1979) Creative Personality Scale (CPS) and second the Five Factor Model of personality (FFM) (Goldberg, 1990; Costa & McCrae, 1992)., also called the "Big Five". In this study the Big Five model will be used because it is a widely used model in the research.

The Big Five is a general term that refers to broad dimensions of personality; namely, openness to experiences, conscientiousness, extraversion, agreeableness, and neuroticism. Openness to experiences is reflected in intellect and the extent of cultural interests, fantasy and creativity. conscientiousness is exemplified by being disciplined, organized and achievement-oriented Extraversion is manifested in greater sociability, assertiveness, talkativeness and self-confidence. Agreeableness refers to being helpful, cooperative and sympathetic towards others. Neuroticism refers to the degree of emotional instability, anxiety, depression and anger. (Costa & McCrae, 1992). See appendix 2 for an overview of the Big Five trait terms and their empirical personality inventory scale and Item correlates.

Block, (2010) and Eysenck, (1992) criticized the big Five of personality as only an theoretical approach. While some claim that the theory underlying the Big Five model is still in development (DeYoung, 2010). You can now conclude that the Big Five is a shared model within the personality psychology and it came a long way from a disjointed field to taxonomy building, a shared model, and a prospective personality theory (De Raad & Mlačić, 2015).

A number of studies have investigated the Big Five personality dimensions and the interaction with creativity. Raja and Johns (2010) examined how each of the Big Five factors affected creativity with the interaction of job scope. Other studies have only focused on one or two personality factors and sought to identify contextual variables. Baer (2010) examined whether the joint effects of network size, strength, and diversity on creativity were further qualified by the openness to experience personality dimension. Baer & Oldham (2006) examined the possibility of a curvilinear relation between the creative time pressure employees experience at work and their creativity. George & Zhou (2001) studied how openness to experience and conscientiousness are related to creative behavior in the workplace. Madjar (2008) examined the relations between employee creativity and emotional and informational support provided by three sources: individuals in the primary work unit, other work-related individuals and non-work-related individuals. Madjar (2008) also examined whether openness to experience moderated these relations. And Madjar, Oldham, and Pratt (2002) investigated how creative personality traits were related to creativity. Feist (1999) stated that all of the FFM factors have several components but research has found that they hang together as five relatively stable factors. Feist (1998; 1999) also stated that the factor that has been most consistently related to creativity is openness to experience. Individuals who score high on openness to experience tend to be broad minded, curious, and untraditional. In contrast, individuals who score low on openness tend to be conventional, unartistic, and unanalytical (Shalley, Zhou, & Oldham, 2004). Moreover, McCrae & Costa (1997) argue that open individuals are both more flexible in absorbing information and combining new and unrelated information. Open individuals also have a higher need to seek out unfamiliar situations to explore new experiences and perspectives. The meta-analysis of Feist (1998) in which he studied the creative personality in the Arts and Sciences, the dimensions that most strongly distinguished the creative from non-creative scientists were extraversion and openness to Experience. Like Feist (1998) there are number of other researchers who confirmed that individuals with high extraversion trait are more creative and have more divergent ideas (Stavridou & Furnham, 1996; King, Walker, & Broyles, 1996; Wolfradt & Pretz, 2001; Furnham & Bachtiar, 2008). There are also number of studies that support the relationship of openness to experience with creativity. McCrae, (1987) confirmed that there is positive correlation in personality and creativity. Wolfradt and Pretz (2001) confirmed McCrae (1987) that openness to experience is postively correlated with creative thinking. Other studies used

different creativity measures and they also confirmed that there is a positive correlation between extraversion and openness to experience, and creativity. For example verbal creativity was significantly correlated with extraversion and openness to experience (King, Walker, and Broyles (1996) and self-rated creativity was significantly correlated with extraversion (Furnham, Batey, Anand, and Manfield, 2008).

This leads to the following hypotheses:

Hypothesis 1a: The personality characteristic extraversion will positively influences individual creativity.

Hypothesis 1b: The personality characteristic openness to experience will positively influences individual creativity.

Another trait that has been studied is conscientiousness. McCrae (1987) found a positive relationship between conscientiousness and creativity based on self-reporting measures of creativity. Also Chen (2016) found a positive relationship between conscientiousness and everyday creativity among Chinese students based on self-reporting measures. However King et al. (1996) took the hypothesis, among participants with many creative achievements, to the test and found that conscientiousness was negatively related to creativity. The findings, of the past research conducted on the relationship between Conscientiousness and creativity, are less uniform. Wolfradt & Pretz (2001) high creativity scores, rated by written stories, were predicted by low levels of conscientiousness. Walker, Koestner, & Hum (1995) found that creative achievers were rated significantly lower on conscientiousness. On the other hand empirical evidence showed that conscientiousness was not related to creativity (King et al., 1996; Silvia et al., 2011). Because the present study will also use self-reporting measures of creativity, it leads to the following hypothesis:

Hypothesis 1c: The personality characteristic conscientiousness will positively influences individual creativity.

Neuroticism is considered to be a negative characteristic in a person's personality. Nevertheless the research findings regarding the relationship between neuroticism and creativity were not consistent (Wolfradt & Pretz, 2001). Götz & Götz (1979) found a negative correlation between neuroticism and creativity in the sciences, but positive in the arts. Eysenck & Furnham, (1993) found no significant correlation between neuroticism and creativity. Because of the negative assumption that comes with of neuroticism the present study hypothesize:

Hypothesis 1d: The personality characteristic neuroticism will negatively influences individual creativity.

Agreeableness might also be expected to have a negative relation with creativity. Several studies suggest that creativity is characterized by low agreeableness. King, Walker, & Broyles (1996) have found that people high in agreeableness have fewer creative accomplishments. Low agreeableness predicted higher levels of creative achievement among scientists and artists. (Feist, 1998). On the other hand, some studies showed that divergent thinking, a cognitive capacity to think creatively (Nusbaum & Silvia, 2011), has a positive relationship with agreeableness (Silvia, Nusbaum et al., 2009; Silvia et al., 2008). This leads to the following hypothesis:

Hypothesis 1e: The personality characteristic agreeableness will negatively influences individual creativity.

2.3 The moderating role of organizational context

The extent to which individual employees will produce creative—novel and useful—ideas during their everyday work depends not only on their individual characteristics, but also on the work environment that they perceive around them (Amabile T. , Conti, Coon, Lazenby, & Herron, 1996). Shalley, Zhou, & Oldham, (2004) argues that creativity is a function of personality characteristics, the characteristics of the context in which he or she works, and the interactions between personality- and context characteristics. If certain contexts "match" individuals' personal characteristics it results in high levels of employee creativity (Shalley, Zhou, & Oldham, 2004). Contextual characteristics are dimensions of the work environment that potentially influence an employee's creativity but they are not part of the individual. Characteristics of the job, work setting, and relationships with co-workers and supervisors would all be considered contextual factors (Shalley & Gilson, 2004).

The most contextual characteristics that have received attention in the literature, and explain how each characteristic might affect creativity are (a)job complexity; (b) relationship with supervisors; (c) relationship with co-workers; (d) rewards;(e) evaluation; (f) time deadlines and goals; and (g) spatial configurations of work settings. (Shalley & Gilson, 2004). In this research other contextual factors will be examined such as perceived autonomy, perceived management support and perceived conflict. During my work as a manager I have experienced that the context of where creativity can be exposed is very important. It can make or break creativity. Human beings are impressionable and they can feel that they do not have enough space (autonomy) or they do not feel encouraged (management support) or they are influenced by some kind of conflict with another person in a team. Therefore the personality traits that enhance creativity cannot flourish to its potential. This study will examine

whether perceived autonomy, perceived management support, and perceived conflict moderates the relationship between the Big Five personality traits and creativity.

2.4.1 Moderating effect of Autonomy

To get a clear picture of what autonomy means it is important to distinguish different kinds of concepts of autonomy. Hmel & Pincus, (2002) distinguish three concepts in there analyses. The first was "autonomy as self-governance, "reflecting interpersonal connectedness and dependency and a strong self-awareness and self-insight. The second type of autonomy conceptualization refers to "separation," that is, being separated from others and being independent. The third type of autonomy was "autonomy as depressogenic vulnerability," based on Beck, (1983) cognitive model of depression. In the analyses of Hmel and Pincus (2002) autonomy as self-governance showed significant positive correlations with agreeableness, conscientiousness, and openness and correlated negatively with neuroticism. People with high scores on this type of autonomy would be psychologically well adjusted, at low risk for psychopathology, and well balanced between dependency and independence Hmel and Pincus (2002). The research of (Amabile et al., 1996; Amabile, 1998; Cummings & Oldham, 1997) shows that for creativity, employees need to feel that they have some autonomy over either how their time is allocated or how their work is to be done. Giving employees freedom within their work will allow them to approach problems in ways that make the most out of their expertise and creative thinking skills. (Amabile, 1998). These studies have shown the importance of autonomy to stimulate employee creativity within a job.

Job autonomy refers to the extent to which an individual employees can structure and control his or her methods, pace, and effort to accomplish work tasks (Spector, 1986). Autonomy in the workplace makes employees feel that they are free from external controls or restrictions. Autonomous jobs are expected to achieve higher levels of creativity than controlled jobs. (Deci, Connell, & Ryan, 1989). Autonomic jobs are designed so that they promote new and useful combinations of multiple dimensions of a job while controlled jobs are designed to impede the making of these combinations (Oldham & Cummings, 1996). For example, an assembly line job that is highly structured, and closely supervised provides little opportunity for individual differences in personality to be expressed. On the other hand, an outside sales position that has relatively little structure, and is not closely supervised allows for a broader range of individual differences in personality to be expressed. Employees who have high autonomous jobs are, more likely to engage in risk taking, alternative thinking, and problem solving, all of which are expected to foster creativity (Amabile T. , 1988; Oldham & Cummings, 1996; Tierney & Farmer, 2002).

Barrick & Mount (1993) studied the moderating effect of job autonomy between the relationship of the Big Five personality dimensions and job performance. They found that two personality factors

(conscientiousness and extraversion) were significantly related to job performance. The validity of conscientiousness, extraversion and agreeableness was greater in jobs high in autonomy compared with those in jobs low in autonomy. But the correlation between agreeableness and job performance was negative. These findings suggest that degree of autonomy in the job moderates the validity of some personality predictors. Hence, a higher degree of autonomy allows an individual to better express his personality. This may include the manifestation of creative behaviour. The high degree of autonomy at work indicates that there is considerable latitude for an employee to determine his or her work, the high degree of autonomy also shows the high level of support to be creative at work. (Amabile, Conti, Coon, Lazenby, & Herron, 1996; Oldham & Cummings, 1996; Spector, 1986). Therefore the following hypothesis is derived:

> ***Hypothesis 2: perceived autonomy moderates the relationship between the "Big Five" personality dimensions and creativity in such a way that individual creativity will be stronger.***

2.4.2 Moderating effect of Supervisory support

To develop, to protect, and realize new ideas employees are dependent on their supervisors for information (experise, data) resources (materials, space, time), and support (endorsement, legitimacy, backing) (Kanter, 2000). Given the role of managers in organizations the perceptions of employees of their managers plays an important role in the extent to which employees show creative behaviour (Janssen, 2005). Al lot of research has been conducted concerning the relation between supervisory support, job performance, job satisfaction, productivity, and creativity. But no research was found concerning the relationship between supervisory support and all the personality traits of the Big Five. Eisenberger, et al. (2002) have defined perceived supervisor support as to which employees develop general views concerning the degree to which supervisors value their contributions and care about their well-being. Research shows that employees' creativity enhances if they experience supportive behavior of coworkers and their supervisors in the workplace (Amabile et all., 1996; Oldham & Cummings, 1996. Frese, Teng, & Wijnen, 1999) showed that the more supervisors encouraging their employees the more creative ideas they brought up. The research of Oldham and Cummings (1996) showed that supportive supervisors made an important contribution to the number of patent disclosure employees made. The majority of earlier studies provide substantial support for the expected relations between supportive leadership styles and creativity (e.g., Amabile & Conti, 1999; Madjar, Oldham, & Pratt, 2002; Oldham & Cummings, 1996; Shalley & Gilson, 2004). On the other hand a few studies did not show significant relations between supervisory support and employee creativity (e.g., George & Zhou, 2001; Zhou, 2003).

The present study argues that if supervisory support moderates employee creativity there also will be a moderating affect between supervisory support and the Big Five personality traits. Therefore the following hypothesis will be used:

> ***Hypothesis 3: perceived supervisory support moderates the relationship between the "Big Five" personality dimensions and creativity in such a way that individual creativity will be stronger.***

2.4.3 Moderating effect of Conflict

Conflict is generally defined as a struggle over incompatible goals. Some researcher (Jehn & Mannix, 2001; Kurtzberg & Mueller, 2005) proposes that conflict can be categorized into three types namely, task, relationship, and process conflict.

Task conflict "is an awareness of differences in viewpoints and opinions pertaining to a group task. Similar to cognitive conflict, it pertains to conflict about ideas and differences of opinion about the task. Task conflicts may coincide with animated discussions and personal excitement but, by definition, are void of the intense interpersonal negative emotions that are more commonly associated with relationship conflict" (Jehn 2010, p238).

Jehn (1995) and Pelled (1996), found that task conflict can be beneficial for creativity. This is because when individuals experience conflict over how work is to be done, the process or act of disagreeing can result in the generation of new ideas and novel solutions. On the other hand De Dreu (2006) stated that too much task conflict can be detrimental for creativity. In this study task conflict is a negative emotion because a conflict is negative by defenition.

Relationship conflict, "is an awareness of interpersonal incompatibilities, includes affective components such as feeling tension and friction. Relationship conflict involves personal issues such as dislike among group members and feelings such as annoyance, frustration, and irritation" (Jehn & Mannix, 2001, p238).

Relationship conflict causes negative psychological reactions like strain, fear, anger, and frustration. These will result in distraction of employees on the task (Jehn & Mannix, 2001; De Dreu & Weingart, 2003). Jehn (1995) and Pelled (1996), stated that relationship conflict reduce team members receptiveness to each other's ideas. Therefore it will have an negative impact on employee creativity.

process conflict "is defined as an awareness of controversies about aspects of how task accomplishment will proceed. More specifically, process conflict pertains to issues of duty and resource delegation, such as who should do what and how much responsibility different people should get. For example, when group members disagree about whose responsibility it is to complete a specific duty, they are experiencing process conflict" (Jehn 2010, p239).

Process conflict is stated as damaging for team performances (Jehn, Northcraft, & Neale, 1999; Kurtzberg & Mueller, 2005; Chen M. H., 2006) It is expected that process conflict will have a negative effect on employee creativity. The present study argues that if all the three types of conflict moderates employee creativity there also will be a moderating affect between conflict and the Big Five personality traits. Therefore the following hypothesis will be used:

> ***Hypothesis 4: Perceived task-, relationship-, and process conflict moderates the relationship between the "Big Five" personality dimensions and creativity in such a way that individual creativity will be weaker.***

2.5 Conceptual model

Based on the presented hypothesis, the following research model throughout this study will be used:

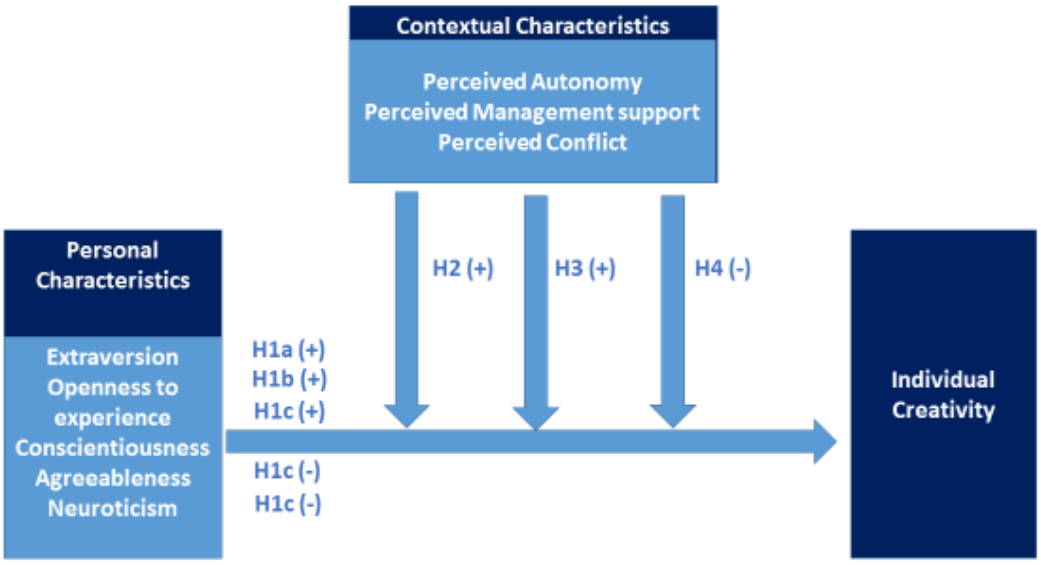

Figure 1 Conceptual model

3 Methodology

3.1 Research design

The aim of the research is to gather evidence of a causal relationship between the Big Five personal characteristics and individual creativity and also the moderating effects of organizational contextual variables between the Big Five and individual creativity. The survey has been addressed to employees operating in different kind of organizations or teams. Prior to sending out the questionnaires to the selected sample, a small pre-test was done to evaluate the questions and give comments to improve the quality of the survey. The pre-test was carried out by three different people of different companies. They did not participate in the final survey. Based on the feedback two items of two questions were phrased differently to clarify the questions. It concerns item two of question three about conflict and the second item of question number five concerning management support. The questions were translated from English into Dutch and the translation was not understood by the pre-testers.

3.2 Unit of analyses

The unit of analysis is an individual employee. Where the focus will be on employees of different kind of organizations in different sectors at different kind of levels.

3.3 Sampling

A random sample of 153 members of Dutch companies consisting of employees from a variety of different organizations were invited to fill out the questionnaire on a web page. Seven companies were contacted via personal connections, all the companies agreed to participate. One person of each company was responsible for the distribution of the survey within their organization. Contacts with each responsible were made via face-to-face meetings, telephone and e-mail invitations. The contacts received an email with a short explanation off the research and a link to the online survey. Via the website Linkedin a short post with the survey link was posted. In order to reach as many employees as possible. A total of 12 companies participated in this research and 153 employees participated in the study (a response rate of 64 %). The employees were on average 40.85 years old (SD = 9.78) and 20.3 percent were female. They worked on average for 10.42 years (SD = 10.03) in their organization and worked an average 4.88 years (SD = 4.73) in their current job. In this study sample, the respondents were working in the branch of Advising, research and other specialist services (32%), Information and communication ICT (30,1%), Financial Institutions (22,2%), public administration (5,9%, construction industry (3,3), real estate (3,3%), health and welfare (0,7%), education (0,7%), production and distribution of and trade in electricity, gas and oil (0,7%), project development (0,7%), transportation

and storage (0,7%). The size of the teams the employees are working in are; 1 till 10 (39,2%), 10 till 20 (26,8%), 20 till 30 (20,9%), 30 till 40 (9,2%), 40 till 50 (0,7%), 50 till 60 (1,3%), 60 till 70 (0,7%), 70 till 80 (0,7%), 80 till 90 (0,7%), 90 till 100 (0,7%).

3.4 Measures

With regards to the measurement of the listed variables this research has employed questions and scales that have proven their worth in prior studies. In this section an overview is presented describing the scales and questions used in this research. For all the variables a 5 point Likert scale is used to answer the questions ranging from 1 (strongly disagree) to 5 (strongly agree).

3.4.1 Dependent variable – employee creativity

Individual creativity was measured using four items adapted from Chae et a.l (2015). The cronbach coefficient (α .56) which is below the cut of point as described by Field (2009) which indicates that the reliability of the measures is questionable.

3.4.2 Independent variable "Big Five" personality dimensions

Individual creativity was measured using a scale developed by (Rammstedt & John, 2007). Rammstedt & John (2007) abbreviated the Big Five Inventory (BFI-44) to a 10-item version. Their study showed that the BFI-10 scales retain significant levels of reliability and validity. The cronbach coefficient of the different dimensions are extraversion (α .69), conscientiousness (α .46), neuroticism (α .56), openness to experience (α.50). Agreeableness showed a negative cronbach coefficient after thorough investigation a reason could not be found. Therefore agreeableness was left out. All the Cronbach alpha's of the variables are below .7, which indicates that the reliability of the measures are questionable.

3.4.3 Moderating variables – Perceived Conflict, -autonomy and -supervisor support

The three types of *conflict* (relationship, task and process) have been measured using the scale used by Jehn and Mannix (2001). Nine questions will probe into which types of conflict an individual perceives. The Cronbach alpha conflict is .85. *Perceived job autonomy* have been measured using the scale of Thompson & Prottas (2005). Four items are used to measure job autonomy The Cronbach alpha is .86. *Perceived supervisor* support was measured using the scale of James B. De Coninck & Julie T. Johnson (2009). Four items were used to measure *supervisory support* which an individual perceives. Cronabch alpha is .86.

3.5 Control variables

In total three control variables are present in the questionnaires. Gender, individual tenure and team size. These variables have been found to distinguish employee creativity (Tierney & Farmer, 2002). Team size was measured using a 9 items scale ranging from 1 to 10, 10 to 20, 20 to 30, 30 to 40, 40 to 50,50 to 60, 60 to 70, 70 to 80, 80 to 90, 90 to 100.

3.6 Reliability

Reliability is defined as the ability of a measure to produce consistent results when the same entities are measured under different conditions (Field, 2009). Reliability is measured trough the Cronbach alphas of every construct. The value of Cronbach Alpha must be over 0.7 to be used (Field, 2009). Besides the Cronbach Alpha also the KMO statistic was calculated for every variable. The KMO statistic indicates if the patterns of correlations are compact and therefore the use of factor analysis should yield distinct and reliable factors (Field, 2009). As the KMO scores for every variable are 0,5 and above minimum of 0,5 the KMO statistics indicate the data is appropriate to conduct factor analysis. Table 1 summarizes the Cronbach alpha values and KMO statistics for every variable.

	n	Cronbach Alpha	KMO Statistic
Creativity	4	0,56	0,50
Extraversion	2	0,69	0,50
Openness to experience	2	0,50	0,50
Conscienteness	2	0,46	0,50
Neuroticism	2	0,56	0,50
Autonomie	4	0,86	0,81
Man support	4	0,86	0,79
Conflict	9	0,85	0,89

Table 1 summary Cronbach alpha and KMO statistic

4 Results

4.1 Factor analysis

An exploratory factor analysis has been performed after all the data is collected to test whether the theorized components were still represented in the data obtained. The factor pattern matrix in Appendix 5 shows that the items measuring creativity, autonomy, management support and conflict loads the items to the variables as predicted in theory. The four scales can be preserved. The factor loadings of the 10 questions concerning the big five personal characteristics do not show any interrelationship.

4.2 Correlation

Table 2 reports the means, standard deviations and intercorrelations of all study variables. The results show a positive relationship (r = .252, p = .002) between extraversion and creativity. Openness to experience shows a positive relation with creativity (r = .298, p = .000), and with extraversion (r = .284, p = .000). Autonomy shows a positive relation with creativity (r = .161, p = .046)., and a positive relation with neuroticism (r = .371, p = .000). Management support shows a positive relation with extraversion (r = .272, p = .001), and a positive relation with autonomy (r = .293, p = .000). Conflict shows a negative relation with extraversion (r = -.180, p = .026), a positive relation with neuroticism (r = .185, p = .022), a positive relation with autonomy (r = .253, p = .002), and a positive relation with management support (r = .450, p = .000).

Table 2.Means, standard deviations, and intercorrelations of creativity, big five personality treats, perceived- autonomy, -management support and -conflict

		M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1	Gender	-	.403	-											
2	Age	40.24	12.07	-,046	-										
3	Tenure in org.	10.42	10.04	,108	,539**	-									
4	Tenure in job	4.88	4.73	,080	,370**	,379**	-								
5	Creativity	3.47	.56	-,109	-,083	-,167*	-,193*	-							
6	Extraversion	3.35	.84	,269**	-,124	-,087	,221**	,252**	-						
7	Openness to exp.	3.59	.78	-,032	-,087	-,179*	-,020	,298**	,284**	-					
8	Neuroticism	2.21	.70	,056	,255**	-,164*	-,059	-,047	-,104	,029	-				
9	Conscientiousness	3.97	.70	,167*	,076	,211**	,043	,011	-,022	,004	-,020	-			
10	Autonomy	3.96	.72	-,061	,006	-,049	-,055	,161*	,122	,092	,371**	,073	-		
11	Man. Support	3.82	.66	,155	-,093	-,002	-,122	,094	,272**	,006	-,101	,117	,293**	-	
12	Conflict	2.46	.63	-,145	-,098	-,169*	-,049	,031	-,180*	,098	,185*	,098	,253**	,450**	-

N= 153,* P < .05, ** P < .01

4.3 Regression

The hypotheses were tested using hierarchical regression analysis. For every big Five dimension a separate regression analyses were conducted. The results are displayed in Table 3-6. The control variables of gender, age , tenure in organization, and tenure in job were first entered in model 1 reported in column called step 1. This model fails to explain a statistically significant share of the variance of the creativity dependent variable. In the next step, the predictors (independent variables) were entered. The results are reported in column step 2 of table 3-6. Table 3 shows that extraversion has a significant relation with creativity (B = .17, p = .00). The finding provides support for the hypothesis (1a) that openness to experience is positively related with individual level of creativity. Table 3 shows that openness to experience has a significant relation with creativity (B = .19, p = .00). There was no evidence that conscientiousness, neuroticism and agreeableness had a relationship with creativity.

In step 3 of the table 3-6 the interaction effects were entered, these findings explain that the interaction between extraversion and autonomy (β = .20, p = .02), the interaction between openness to experience and autonomy (β = .21, p = .02), and the interaction between neuroticism and autonomy (β = .21, p = .03), has a statistically significant influence on creativity. These findings provides support for hypothesis 2 but only for extraversion, openness to experience, and neuroticism.

Table 3. Hierarchical regression analysis: extraversion and interaction effects on creativity

	Step 1	Step 2	Step 3
Gender	-,112	-,202	-,193
Age	,002	,002	,001
Tenure in org.	-,007	-,006	-,005
Tenure in job	-,018	-,010	-,012
Extraversion		,173**	,158**
Moderator Autonomy		,094	,098
Moderator Management Support		,036	,014
Moderator Conflict		,079	,043
Extra Version*Autonomy			,067*
Extra Version*Conflict			,016
R	,233	,367*	,414*
R Square	,054	,134*	,171*
R Square Change	,054	,081*	,036*

Note: For employee gender, 0 denotes males, 1 denotes females. Table presents standardized Beta coefficients

**p < 0.05; ** p < 0.01; *** p < 0.001; n = 153*

Table 4. Hierarchical regression analysis: Openness to experience and interaction effects on creativity

	Step 1	Step 2	Step 3
Gender	-,112	-,109	-,111
Age	,002	,002	,003
Tenure in org.	-,007	-,003	-,004
Tenure in job	-,018	-,018	-,019
Openness to experience		0,194***	0,219***
Moderator Autonomy		,084	,050
Moderator Management Support		,063	,042
Moderator Conflict		,035	,019
Openness to exp.*Autonomy			,212*
Openness to exp.*Man.Support			-,021
Openness to exp.*Conflict			,019
R	,233	,386**	,430
R Square	,054	,149**	,185
R Square Change	,054	,0945**	,036

Note: For employee gender, 0 denotes males, 1 denotes females. Table presents standardized Beta coefficients

**p < 0.05; ** p < 0.01; *** p < 0.001; n = 153*

Table 5. Hierarchical regression analysis: Conscientiousness and interaction effects on creativity

	Step 1	Step 2	Step 3
Gender	-,112	-,119	-,117
Age	,002	,002	,002
Tenure in org.	-,007	-,007	-,008
Tenure in job	-,018	-,016	-,016
Conscientiousness		,052	,056
Moderator Autonomy		,111	,101
Moderator Management Support		,064	,067
Moderator Conflict		,063	,063
Conscientiousness*Autonomy			-,038
Conscientiousness*Man.Support			,065
Conscientiousness*Conflict			-,084
R	,233	,290	,315
R Square	,054	,084	,099
R Square Change	,054	,030	,015

Note: For employee gender, 0 denotes males, 1 denotes females. Table presents standardized Beta coefficients

**p < 0.05; ** p < 0.01; *** p < 0.001; n = 153*

Table 6. Hierarchical regression analysis: Neuroticism and interaction effects on creativity

	Step 1	Step 2	Step 3
Gender	-,112	-,107	-,096
Age	,002	,002	,001
Tenure in org.	-,007	-,006	-,005
Tenure in job	-,018	-,016	-,016
Neuroticism		-,015	-,018
Moderator Autonomy		,101	,158
Moderator Management Support		,070	,062
Moderator Conflict		,063	,074
Neuroticism*Autonomy			-,208
Neuroticism*Man.Support			-,015
Neuroticism*Conflict			,036
R	,233	,284	,359
R Square	,054	,081	,129
R Square Change	,054	,026	,048

Note: For employee gender, 0 denotes males, 1 denotes females. Table presents standardized Beta coefficients

**p < 0.05; ** p < 0.01; *** p < 0.001; n = 153*

Figures 2a–c visually represents the effects of extraversion, openness to experience, and neuroticism and the interaction with autonomy. Simple slope analyses ((Aiken, West, & Reno, 1991)revealed that, as expected, extraversion was significantly positively related to creativity when perceived autonomy was high (1 SD above the mean; β = .34, p = .00). In contrast, when perceived autonomy was low (1 SD below the mean), no relation between autonomy and creativity was found (β = -0,08, p = .45). These results support hypothesis 2 and, as shown in Figure 2a, reveal that high perceived autonomy and high levels of extraversion enhances individual creativity.

Extraversion and autonomy

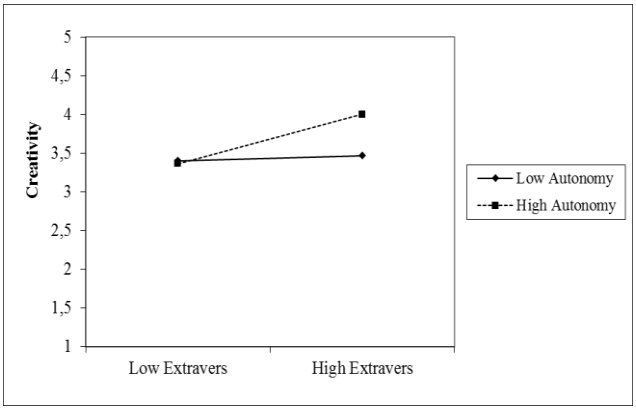

Figure 2a

Openness to experience is significantly positively related to creativity when perceived autonomy was high (1 SD above the mean; β = .27, p = .00). When perceived autonomy was low (1 SD below the mean), there is no significant relation between extraversion and creativity β = -.12, p = .32). These results support hypothesis 2 and, as shown in Figure 2b, reveal that high perceived autonomy and high levels of openness to experience enhances individual creativity.

Openness to experience and autonomy

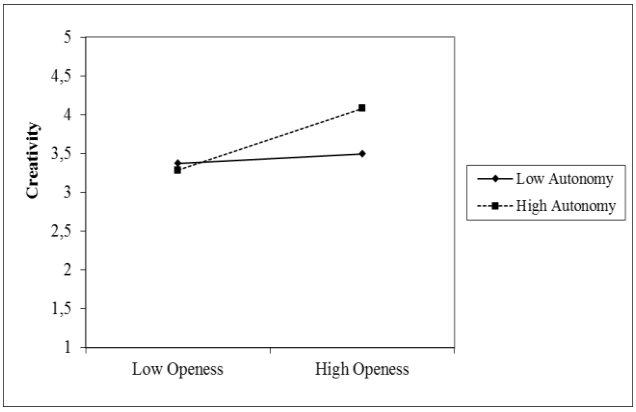

Figure 2b

Neuroticism is significantly negatively related to creativity when perceived autonomy was low (1 SD below the mean; β = .38, p = .00). When perceived autonomy was high (1 SD above the mean), there is no significant relation between neuroticism and creativity β = .04, p = .67)). These results support hypothesis 2 and, as shown in Figure 2c, reveal that high perceived autonomy and high levels of neuroticism decreases individual creativity.

Neuroticism and autonomy

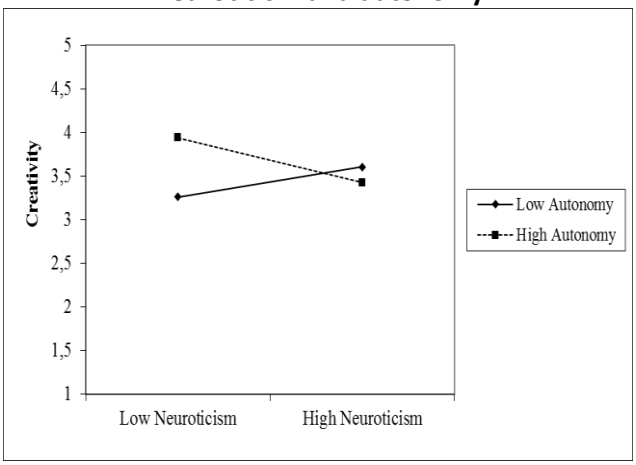

Figure 2c

The table below summarizes the outcome of the tested hypothesis.

Table 7 summary tested hypotheses.

Hypothesis	**Outcome**
H1a: The personality characteristic extraversion will positively influences individual creativity.	**Accepted**
H1b: The personality characteristic openness to experience will positively influences individual creativity.	**Accepted**
H1c: The personality characteristic conscientiousness will positively influences individual creativity.	**Rejected**
H1d: The personality characteristic neuroticism will negatively influences individual creativity.	**Rejected**
H1e: The personality characteristic agreeableness will negatively influences individual creativity.	**Rejected**
H2: perceived autonomy moderates the relationship between the "Big Five" personality dimensions and creativity in such a way that individual creativity will be stronger	**Accepted for A,B,E**
H3: Perceived supervisory support moderates the relationship between the "Big Five" personality dimensions in such a way that individual creativity will be stronger.	**Rejected**
H4: Perceived conflict moderates the relationship between the "Big Five" personality dimensions in such a way that individual creativity will be weaker.	**Rejected**

5 Discussion

Innovation starts with a novel and useful or a creative idea (Amabile, 1996), creativity has become increasingly important as a driver of innovation (Amabile, 1992; Kurtzberg & Muller, 2005). Because creativity stems from the minds of the individual employee who carries out the work of the organization it becomes more and more important to know what creative people are like and how they are being influenced by the organizational context. Research findings regarding the effect of personality traits on creativity have not been conclusive, resulting in findings that all the Big Five personality traits has positive, negative, and nonsignificant effects on creativity. The mixed findings suggest the possibility of moderating variables that influences the effect of personality traits on creativity. Given the widespread belief in the value of creativity in organizations, it is, therefore, important to understand the circumstances under which personality traits becomes beneficial for or detrimental to creativity. Following this reasoning literature has paid increasing attention on personality traits and creativity, but did not studie the moderating effect of contextual factors between the Big Five personality traits and creativity. Building on these research gaps, this thesis has investigated the effect of that moderating effect. The aim of this thesis is to address the following research question:

"What is the relation between the "Big Five" dimensions and employee creativity and what is the moderating effect of perceived autonomy, perceived management support and perceived conflict?"

The results from present studies confirm the relationship between the two personality traits extraversion, openness to experience, and creativity. These findings are in line with existing theories. There are some possible reasons for this relationship. First, extraverted people and open people are achieving, assertive, ambitious, curious, and open-minded and therefore more fascinated with creative, open- ended, problem-solving tasks, and therefore they just do better on those tasks. Second, extraverted, and open people may have developed cognitive skills associated with creativity such as flexibility, imaginativeness, and originality. Third, extraverted and open people have wide interests and more varied experiences, and this may serve as the foundation for creativity. Conscientiousness, neuroticism and agreeableness in this study did not show significant relationships with creativity. Past research supported a connection between each of these traits and creativity although there were also null or negative results. An explanation for this may lie in the population sample. Research in the past with null or negative results were also conducted on general population samples and not on creative artists, students, or scientists. Another possible explanation for the finding that conscientiousness, neuroticism, and agreeableness did not show a positive relation with creativity is that conscientious creative individuals have higher standards for considering creative

accomplishments. So they would tend to report fewer accomplishments than the less conscientious, neurotic, and agreeable individuals.

The main finding in this study is that extraversion and openness to experience interacted with perceived autonomy to enhance creativity. The effect of perceived autonomy is higher when employees have high levels of extraversion and openness to experience. These results complement the work of personality theorists Barrick & Mount (1993, 1991) who have argued that traits are most likely to be useful in those settings where there is a high level of autonomy. In contrast neuroticism was negatively related to creativity when perceived autonomy was high. It seems that high perceived autonomy and high levels of neuroticism decreases individual creativity. An possible explanation for this finding is that employees who are neurotic feel more insecure, anxious and tense when they experience more freedom in carrying out their task. Overall, the results show that the degree of perceived autonomy is an important moderator of the relationship between the personality characteristics extraversion, openness to experience, and individual creativity.

Hypothesis 3 investigated the moderating effects of supervisory support on the relationship between the Big Five personality traits and individual creativity. Supervisory support did not show a significant effect. An explanation for this finding may be that highly educated employees do not need any form of management support. Especially employees who are autonomous, confident, independent, and self-assured (i.e. extraversion) and who are creative, flexible, intelligent and who are achievers via independence (i.e. openness to experience).

The moderating effects of task- relationship- and process conflict (hypothesis 4) were also investigated in this study. The results of the moderating effect of the different types of conflicts on the relationship between the Big Five personality traits and creativity did not prove to be significant. This would imply that the occurrence of all the three types of conflict does not have a significant moderating effect on the relationship between the Big Five personality dimensions and individual creativity. An explanation for this may lie in the possibility that relationship conflict for high educated, extraverted and open employees may be somewhat distracting from work but does not affect them for achieving their creative goals. Also when those employees experience high levels of autonomy there are no boundaries for doing their task so there also will be no task conflict because it simply does not exists. This also can apply for process conflict because who should do what and how much responsibility employees have is already very clear.

5.1 Implications

This paper has made a number of contributions to the literature. First, this research assesses all the Big Five personality traits and uses a general population which has not been done much in the past. Only a few researchers have directly examined the relation between creativity and all of the dimensions of the Big Five personality traits (Mumford, Costanza, Threlfall, & Baughman, 1993; McCrae, 1987). Also the findings concerning the Big Five traits, which showed significant and no significant relation on individual creativity, adds to the literature because the findings of the past research are less uniform. Second, this study explicitly assesses the influence of contextual factors on personal traits to enhance creativity something that previous studies have not addressed. This research provides insight into which contextual factors moderates personality traits to enhance creativity. Perceived autonomy has shown to have the biggest influence on extraversion and openness to experience. Finally this study uses a widespread population of highly educated employees of multiple organizations in different kind of industries. The practical implications of this research findings have important implications for the conditions under which employees show the best level of creativity. First, employees who are sociable, outgoing, and assertive (Extraverted) and those who are, creative, curious, flexible, (openness for experience) perform better in jobs where creativity is asked and when given a great deal of autonomy to perform their task. Conversely, employees who are anxious, defensive, and worrying (neuroticism) show more creativity when autonomy is low. Overall the results indicate that autonomy is a moderator of the relation between personality and creativity, but the direction of the relationship differs across personality constructs. Second, a lot of organizations already measures the level of personality traits before they decide to hire a new employee. This study shows that measuring only personality traits is not enough. Organizations also need to look at the level of autonomy which the (new) employee can develop in such a way that the degree of creativity will be increased. If they do not it is possible that the employee will not show his or her qualities to its full potential.

5.2 Limitations and future research

The main weakness of this study was that all the concepts are measured by means of self-measurement. There is a potential bias toward reporting high creativity in order to present oneself in a positive light by reporting many accomplishments. Employees may rate themselves for example more creative as they really are. Theoretically, this tendency to over-report may be linked to extraversion and openness to experience, because confident, and open individuals may be more likely to value creativity. The self-reported creative accomplishments may also represent differences in recall of creative behavior rather than actual differences in behavior. It is meaningful, from this perspective,

that highly confident and open individuals tends to recall relatively more creative accomplishments than their less open creative colleagues. It is telling that individuals lacking confidence and openness recall few accomplishments. Therefore it makes sense that confident, and open individuals would more easily recall instances of themselves performing creatively. Future research using multiple measures of creative accomplishments will be necessary to clarify these results. The actual creative value of any given accomplishment may not be for the creator or not only for the supervisor to decide. The only valid measurement of creativity is multi-perspective. Otherwise there is no correspondence between organizational reality and work environment perceptions (Amabile et al. 1996). Future research may use an multi-perspective measurement which lead to a more objective measurement method to measure creativity. Future research that includes both self-report scales and other scales like psychometric creativity tests, using supervisors ratings, and measures of creative performance, like written patent disclosures. Combining them may provide more richness of the hypotheses in the present study.

Another limitation is that the generalizability of the effects are limited to Dutch firms. The diversity of the population used in this research is only an small part of the entire theoretical domain. Furthermore, the past research findings concerning conscientiousness, neuroticism and agreeableness were less uniform than the findings of extraversion and openness to experience. This implicates that creativity is a complex phenomenon that cannot be simply explained by a list of trait terms that consistently relate to creativity. Discovering consistent and robust patterns in the literature on personality and creativity has more important implications than merely cataloguing characteristics. In order to understand the complexity future research will also have to look at the underlying organization and structure of a personality, the function of properties, and the underlying physiological and psychological mechanisms in order to link these special characteristics to creative behaviour. Also future research may test the present study in other organizations with the same level of innovation, and other moderators within the theoretical domain to increase the generalizability of the hypotheses across the entire theoretical domain. Also considering different cultures and different jobs (e.g. sales, management, research) will benefit to the understanding of the contextual influence on the relationship between personality traits and creativity. Due to the past research there is a general agreement that individuals with high extraversion and openness to experience are more creative. While research on conscientiousness, neuroticism, and agreeableness, show divergent results. More research is required for further exploring the relationship between conscientiousness, neuroticism, agreeableness, and creativity. And more research is required of the moderating effects of supervisory support, and conflict on personality traits and their relation with creativity to fully understand what enhances individual creativity. In future research it will be important to investigate the causal mechanism underlying the relationship between the level of autonomy, personality traits, and

creativity. Barrack & Mount (1993) argue that It is possible that the moderating effect of autonomy on the personality variable is due to the continuous reciprocal influence that occurs between these two variables. According to this view, the supervisor personality characteristics (e.g. high levels of extraversion and openness to experience) may increase the level of autonomy the employee is allowed, which may then influence what the supervisor does next, which in turn can further change the level of autonomy, and so on. Therefore, the use of longitudinal studies will increase the understanding of the causal relationship between these variables.

Furthermore this study used a very short measure of the Big Five personality traits, utilising only ten items in total which probably resulted in a low validity measurement. Future search should take into account which measure is the best for use in the study to perform.

5.4 Conclusions

This study takes an important step towards an increased understanding of the influence of contextual characteristics on the Big Five personality traits and individual creativity. While there is a relationship between extraversion and openness to experience to individual creativity, the relationship is more complex. It depends on the level of perceived autonomy. Perceived autonomy appear to magnify the effect that extraversion and openness to experience have on individual creativity. It also reduce the negative effect that neuroticism has on individual creativity. This is consistent with the theory of creativity. Surprisingly there was no significant moderating effect of management support, and conflict between the Big Five personality traits and individual creativity. Which means there is still more to learn about the influences of contextual factors on the relationship between personality traits and individual creativity. Giving the importance of creativity to most organizations such research has important practical implications.

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Appendix 1: Survey

Big five persoonlijkheidskenmerken BFI-10 (10 item short version of big five Rammstedt et all 2007)
Hoe goed beschrijven de volgende uitspraken uw persoonlijkheid? Ik zie mezelf als iemand die.....

1. ....gereserveerd is
2. ....over het algemeen te vertrouwen is
3. ... de neiging heeft om lui te zijn
4. ....ontspannen, stressbestendig is
5. ...weinig artistieke interesses heeft
6. ....extravert is, gezellig is
7. ... de neiging heeft anderen te bekritiseren
8. ....die grondig zijn / haar werk doet
9. ....die snel nerveus en onzeker wordt
10. ...die een actieve verbeeldingskracht heeft, fantasierijk is

Individual / employee creativity items (4 items based on Chae (2015)
In hoeverre beschrijven de volgende uitspraken u het beste?

1. Binnen mijn team zal ik als eerste of bijna als eerste ons nieuwe idee of methode proberen]
2. Ik vind meestal nieuwe toepassingen voor bestaande methoden of bestaande apparatuur
3. Ik ontwikkel adequate plannen en schema's voor de implementatie van nieuwe ideeën
4. Ik stel nieuwe en betere manieren voor om de doelstelling(en) te bereiken

Conflict (relationship, task and process conflict) (Jehn and Mannix (2001)
In hoeverre beschrijven volgens u de volgende uitspraken uw team?

1. In mijn team zijn er veel relationele spanningen
2. In mijn team zijn er veel conflicten tussen ideeën
3. In mijn team zijn er niet veel emotionele conflicten
4. In mijn team zijn er nooit veel tegenstrijdige ideeën en opinies over de taak
5. In mijn team zijn er veel onenigheden over wie wat doet
6. In mijn team worden mensen vaak boos tijdens teamwerk
7. In mijn team zijn er veel onenigheden over de taak waaraan het team werkt
8. In mijn team zijn er niet veel conflicten over taak verantwoordelijkheden
9. In ons team zijn er veel onenigheden rondom de toewijzing van middelen.

Perceived autonomy. Job autonomy was measured by four items: Artikel Thomson
In hoeverre beschrijven de volgende uitspraken de mate van autonomie, die u ervaart, het beste?

1. Ik heb de vrijheid om te beslissen wat ik doe op mijn werk
2. Ik heb veel te zeggen over wat er gebeurt op mijn werk
3. Het is eigenlijk mijn eigen verantwoordelijkheid om te beslissen hoe mijn werk wordt gedaan
4. Ik heb het gevoel dat ik veel vrijheid heb om zelf prioriteiten te stellen hoe ik mijn tijd indeel

Perceived Supervisor Support PSS (James B. DeConinck & Julie T. Johnson (2009)

1. Mijn leidinggevende is trots op mijn prestaties.
2. Mijn leidinggevende geeft echt om mijn welzijn
3. Mijn leidinggevende neemt mijn doelen en waarden sterk in overweging
4. Mijn leidinggevende is bereid om me te helpen als ik hulp nodig heb

General Questions

1. Wat is uw leeftijd?
2. Sekse?
3. Wat is de naam van het bedrijf waarin u werkzaam bent?
4. In welke industrie is het bedrijf actief?

5. Hoe lang bent u reeds werkzaam voor het bedrijf?
6. Hoe lang zit u in uw huidige functie?
7. Uit hoeveel teamleden bestaat het team?
8. Heeft u nog opmerkingen of aanvullingen?
9. Wenst u te worden geïnformeerd over de resultaten van dit onderzoek? Hiervoor ontvangt u een overzicht van uw eigen resultaten en de vergelijking met andere ondernemingen

Appendix 2: Summary of creativity at individual level of analyses research findings for 2002-2016

Level of analysis	Construct/ variable	Dimension	Effect direction	Example studies
Individual	Individual differences: Personality	Openness to experience	+	Baer (2010); Baer & Oldham (2006); Madjar (2008); Raja & Johns (2010);
		Conscientiousness/ extraversion/ neuroticism/ agreeableness	zero	Miron et al. (2004); Raja & Johns (2010)
		Proactive personality/ creative personality/ creative role identity	+	Farmer et al. (2003); Gong et al. (2012); Madjar et al. (2002); Tierney & Farmer (2011); Wang & Cheng (2010); Wu et al. (in press); Zhou (2003
	Individual differences: Goal orientation	Learning orientation/ mastery orientation	+	Shalley et al. (2009)
		Growth need strength	+	Choi & Price (2005); Shin & Zhou (2003)
	Individual differences: Values	Conservation value/ congruence of values	+	Choi & Price (2005); Shin & Zhou (2003)
		Conformity value	-	Zhou et al. (2009)
	Individual differences: Thinking styles	Need for cognition	+	Wu et al. (in press)
		Systematic thinking style	-	Clegg et al. (2002)

Level of analysis	Construct/ variable	Dimension	Effect direction	Example studies
Individual	Individual differences: Self-concepts	Self-esteem and self-monitoring/ (creative, role-breadth) self-efficacy	+	Axtell et al. (2006); Carmeli & Schaubroeck (2007); Clegg et al. (2002); Rank et al. (2009); Tierney & Farmer (2002, 2004, 2011)
		Regulatory focus: promotion	+	Zhou et al. (2012)
		Regulatory focus: prevention	-	Zhou et al. (2012)
	Individual differences: Knowledge	Knowledge	+	Howell & Boies (2004); Krause (2004); Obstfeld (2005)
	Individual differences: Abilities	Networking ability/ creative ability	+	Baer (2012); Choi et al. (2009)
	Individual factors: Psychological states	Positive affect/ positive moods/ feelings of energy and vitality	+	Amabile et al. (2005); Atwater & Carmeli (2009); Binnewies & Wörnlein (2011); George & Zhou (2002, 2007); Kark & Carmeli (2009); Madjar et al. (2002); Madrid et al. (in press); Ng & Feldman (2009)
		Negative affect/ negative moods/ emotional ambivalence	mixed	Amabile et al. (2005); Bledow et al. (2013); Binnewies & Wörnlein (2011); Fong (2006); George & Zhou (2002, 2007); Madjar et al. (2002); Ng & Feldman (2009)
	Individual factors: Motivation	Intrinsic motivation/ expected positive performance outcomes	+	Eisenberger & Aselage (2009); Grant & Berry (2011); Mueller & Kamdar (2011); Shin & Zhou (2003); Yuan & Woodman (2010); Zhang & Bartol (2010a)
		Expected image risks	-	Yuan & Woodman (2010)
	Individual factors: Others	Strain/ psychological contract breach	-	Ng et al. (2010); Van Dyne et al. (2002)

(continued)

Level of analysis	Construct/ variable	Dimension	Effect direction	Example studies
Individual	Individual factors: Others	Trust	+	Clegg et al. (2002); Gong et al. (2012)
	Task contexts: Job complexity	Job complexity/ routinization	+	Baer et al. (2003); Farmer et al. (2003); Ohly et al. (2006); Shalley et al. (2009); Tierney & Farmer (2004)
	Task contexts: Goals and job requirements	Job required creativity/ innovativeness	+	Tierney & Farmer (2011); Unsworth & Clegg (2010); Unsworth et al. (2005); Yuan & Woodman (2010)
		Time pressure	mixed	Baer & Oldham (2006); Binnewies & Wörnlein (2011); Ohly et al. (2006); Ohly & Fritz (2010)
		Rewards	+	Baer et al. (2003); Eisenberger & Aselage (2009); George & Zhou (2002)
	Social contexts: Leadership and supervision	Transformational leadership	+	Bono & Judge (2003); Gong et al. (2009); Hirst et al. (2009b); Pietrese et al. (2010); Rank et al. (2009); Shin & Zhou (2003)
		Transactional leadership	-	Pietrese et al. (2010); Rank et al. (2009)
		Supervisory support/ supervisory empowerment behaviors/ supervisory benevolence	+	Janssen (2005); Madjar et al. (2002); Wang & Cheng (2010); Zhang & Bartol (2010a)
		Supervisory expectations for creativity/ supervisory developmental feedback and non-close monitoring	+	Carmeli & Schaubroeck (2007); Tierney & Farmer (2004); Zhou (2003)

(continued)

Level of analysis	Construct/ variable	Dimension	Effect direction	Example studies
Individual		Influence-based leadership	mixed	Krause (2004)
	Social contexts: Coworker influences	Co-worker support/ creativity expectations by co-workers	+	Farmer et al. (2003); Madjar et al. (2002)
		Presence of creative co-workers	mixed	Madjar et al. (2011); Zhou (2003)
	Social contexts: Customer influences	Customer input/ customer affect-based trust	+	Madjar & Ortiz-Walters (2008)
	Social context: Other social influences	Feedback	+	De Stobbeleir et al. (2011); George & Zhou (2007); Zhou (2003); Zhou (2008a
		Evaluation/ justice	mixed	George & Zhou (2007); Khazanchi & Masterson (2011); Yuan & Zhou (2008)
	Social context: Social networks	Social network	mixed	Baer (2010); Obstfeld (2005); Perry-Smith (2006); Perry-Smith & Shalley (2003); Tortoriello & Krackhardt (2010); Zhou et al. (2009)
	Other research	Willingness to take risks/ career commitment/ resources for creativity/ organizational identification/ job involvement/ information privacy	+	Alge et al.(2006); Janssen (2003); Madjar et al. (2011)
		Creative process engagement	mixed	Zhang & Bartol (2010b)

Appendix 3: Five Factor Model Trait Terms and Their Empirical Personality Inventory Scale and Item Correlates

Factor label	Abbreviation	Empirical Correlates (Scales and Items)[a]
Neuroticism	N+	Anxious, defensive, depressed, emotional, excitable, guilt-prone, hypochondria, insecure, labile, neurotic, psychasthenia, schizophrenia, shrewd, succorant, tense, worrying
	N-	Achievement via conformance, adjusted, calm, ego-strength, good impression, guilt-free, happy, intellectual efficiency, personal adjustment, personal soundness, psychologically minded, stable, well-being
Extraversion	E+	Achieving, active, adventurous (parmia), ambitious, assertive, autonomous, capacity for status, confident, cyclothymic, dominant, energetic, enthusiastic, exhibitionistic, expressive, extraverted, gregarious, hypomanic, impulsive, independent, initiative, leader(ship), need for recognition, power (oriented), positive emotion, self-accepting, self-assured, self-confident, self-esteem, self-sufficient, sensation seeking, sociable, social presence, surgent
	E-	Abasement, deferent, dependent, depressed, internality, introverted, radical, reflective, reserved, social introversion, submissive,
Openness	O+	Aesthetic, achievement via independence, change, creative, curious, flexible, humorous, imaginative, intelligent, open, open-minded, original, sensitive, sophisticated, wide interests
	O-	Conventional, inflexible, rigid, socialized
Agreeableness	A+	Affiliative, agreeable, communality, cooperative, easy-going, empathic, feminine, friendly, generous, intraceptive, nurturing, nurturing parent, peaceful, supportive, warm
	A-	Aggressive, argumentative, cynical, egotistical, exploitative, headstrong, hostile, masculine, psychoticism, suspicious
Conscientiousness	C+	Careful, cautious, conscientious, controlled, endurance, fastidious, orderly, persevering, reliable, responsible, self-controlled
	C-	Direct expression of needs, psychopathic deviant

Appendix 4 descriptive statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Wat is uw leeftijd in jaren?	153	21	64	40,85	9,780
Hoe lang (in jaren) bent u reeds werkzaam voor uw organisatie?	152	0	45	10,42	10,038
Hoe lang (in jaren) zit u in uw huidige functie?	153	0	34	4,88	4,730
Valid N (listwise)	152				

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Man	122	79,7	79,7	79,7
	Vrouw	31	20,3	20,3	100,0
	Total	153	100,0	100,0	

Uit hoeveel teamleden bestaat uw team?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 tot 10	60	39,2	39,2	39,2
	10 tot 20	41	26,8	26,8	66,0
	20 tot 30	32	20,9	20,9	86,9
	30 tot 40	14	9,2	9,2	96,1
	40 tot 50	1	,7	,7	96,7
	50 tot 60	2	1,3	1,3	98,0
	60 tot 70	1	,7	,7	98,7
	80 tot 90	1	,7	,7	99,3
	90 tot 100	1	,7	,7	100,0
	Total	153	100,0	100,0	

In welke branche is uw organisatie actief?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ADVISERING, ONDERZOEK EN OVERIGE SPECIALISTISCHE ZAKELIJKE DIENSTVERLENING	49	32,0	32,0	32,0
	BOUWNIJVERHEID	5	3,3	3,3	35,3
	FINANCIËLE INSTELLINGEN	34	22,2	22,2	57,5
	GEZONDHEIDS- EN WELZIJNSZORG	1	,7	,7	58,2
	INFORMATIE EN COMMUNICATIE	46	30,1	30,1	88,2
	ONDERWIJS	1	,7	,7	88,9
	OPENBAAR BESTUUR, OVERHEIDSDIENSTEN EN VERPLICHTE SOCIALE VERZEKERINGEN	9	5,9	5,9	94,8
	PRODUCTIE EN DISTRIBUTIE VAN EN HANDEL IN ELECTRICITEIT, AARDGAS,	1	,7	,7	95,4
	Projectontwikkeling / vastgoed	1	,7	,7	96,1
	VERHUUR VAN EN HANDEL IN ONROEREND GOED	5	3,3	3,3	99,3
	VERVOER EN OPSLAG	1	,7	,7	100,0
	Total	153	100,0	100,0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
XIndependentEV	153	1,50	5,00	3,3595	,84187
XIndependentOE	153	1,50	5,00	3,5980	,78022
XIndependentNT	153	1,00	4,00	2,2124	,70872
XIndependentCT	153	2,00	5,00	3,9771	,70557
XIndependentAG	153	2,50	5,00	3,8824	,53731
ModeratorAutonomy	153	1,00	5,00	3,9657	,72039
ModeratorManSupport	153	1,50	5,00	3,8268	,66903
ModeratorTaskConflict	153	1,33	4,67	2,7146	,70443
ModeratorRelationConflict	153	1,00	4,67	2,3290	,77137
ModeratorProcessConflict	153	1,00	4,33	2,3377	,67861
YCreativity	153	2,25	5,00	3,4771	,56586
Valid N (listwise)	153				

Appendix 5 Factor analyse

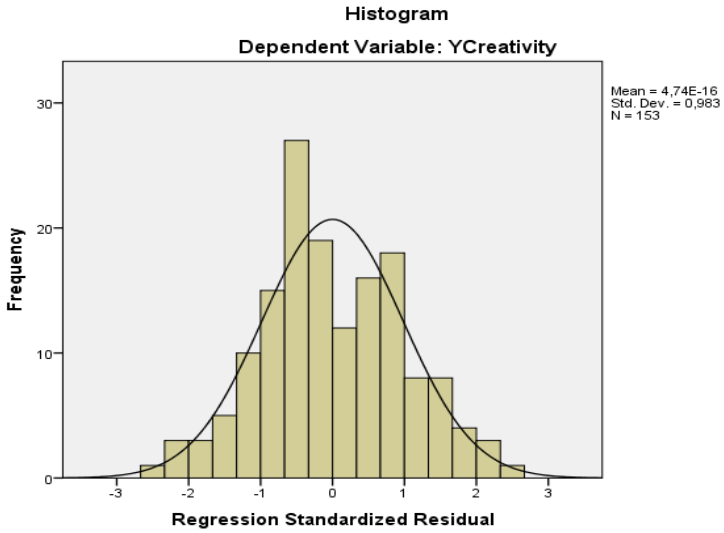
Rotated Component Matrix[a]

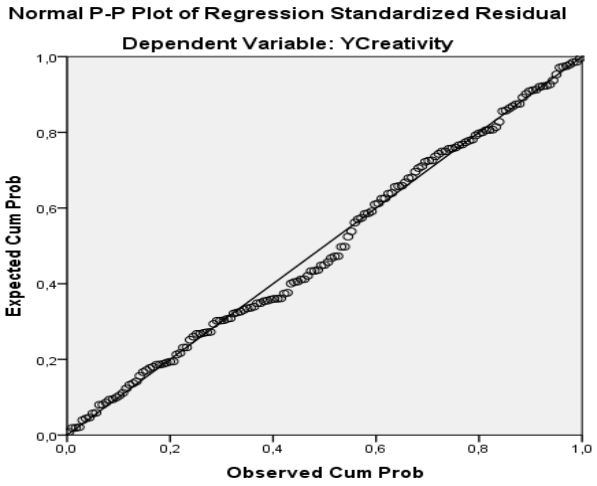
	Component					
	1	2	3	4	5	6
Conflict. In hoeverre beschrijven volgens u de volgende uitspraken uw team? [In mijn team worden mensen vaak boos tijdens het teamwerk]	,820		-,199			
Conflict. In hoeverre beschrijven volgens u de volgende uitspraken uw team? [In mijn team zijn er veel onenigheden over wie wat doet]	,803	-,165				
Conflict. In hoeverre beschrijven volgens u de volgende uitspraken uw team? [In mijn team zijn er veel conflicten tussen ideeën]	,780	-,165				
Conflict. In hoeverre beschrijven volgens u de volgende uitspraken uw team? [In mijn team zijn er veel onenigheden over de taak waaraan het team werkt]	,740		-,187			
Conflict. In hoeverre beschrijven volgens u de volgende uitspraken uw team? [In mijn team zijn er veel relationele spanningen]	,730		-,278			
Conflict. In hoeverre beschrijven volgens u de volgende uitspraken uw team? [In mijn team zijn er veel onenigheden rondom de toewijzing van middelen.]	,648		-,231	-,155		
Autonomie. In hoeverre beschrijven de volgende uitspraken de mate van autonomie, die u ervaart, het beste? [Ik heb de vrijheid om te beslissen wat ik doe op mijn werk]		,833	,190		,164	
Autonomie. In hoeverre beschrijven de volgende uitspraken de mate van autonomie, die u ervaart, het beste? [Ik heb het gevoel dat ik veel vrijheid heb om zelf prioriteiten te stellen hoe ik mijn tijd indeel]	-,218	,823				
Autonomie. In hoeverre beschrijven de volgende uitspraken de mate van autonomie, die u ervaart, het beste? [Het is eigenlijk mijn eigen verantwoordelijkheid om te beslissen hoe mijn werk wordt gedaan]		,822				
Autonomie. In hoeverre beschrijven de volgende uitspraken de mate van autonomie, die u ervaart, het beste? [Ik heb veel te zeggen over wat er gebeurt op mijn werk]		,818	,167	,184		
Management Support. In hoeverre beschrijven de volgende uitspraken de mate van support, die u ervaart, het beste? [Mijn leidinggevende neemt sterk mijn doelen en waarden in overweging]	-,249	,206	,811			
Management Support. In hoeverre beschrijven de volgende uitspraken de mate van support, die u ervaart, het beste? [Mijn leidinggevende is trots op mijn prestaties.]			,808			
Management Support. In hoeverre beschrijven de volgende uitspraken de mate van support, die u ervaart, het beste? [Mijn leidinggevende geeft echt om mijn welzijn]	-,393	,151	,799			
Management Support. In hoeverre beschrijven de volgende uitspraken de mate van support, die u ervaart, het beste? [Mijn leidinggevende is bereid om me te helpen als ik hulp nodig heb.]	-,228		,741			-,198
Individuele creativiteit. In hoeverre beschrijven de volgende uitspraken u het beste? [Ik stel nieuwe en betere manieren voor om de doelstelling(en) te bereiken]				,841		
Individuele creativiteit. In hoeverre beschrijven de volgende uitspraken u het beste? [Ik ontwikkel adequate plannen en schema's voor de implementatie van nieuwe ideeën]			,175	,826		
Individuele creativiteit. In hoeverre beschrijven de volgende uitspraken u het beste? [Ik vind meestal nieuwe toepassingen voor bestaande methoden of bestaande apparatuur]	,169				,822	
Individuele creativiteit. In hoeverre beschrijven de volgende uitspraken u het beste? [Binnen mijn team zal ik als eerste of bijna als eerste ons nieuwe idee of methode proberen]					,803	-,178
Hoe goed beschrijven de volgende uitspraken uw persoonlijkheid? Ik zie mezelf als iemand die..... [...weinig artistieke interesses heeft]						,942

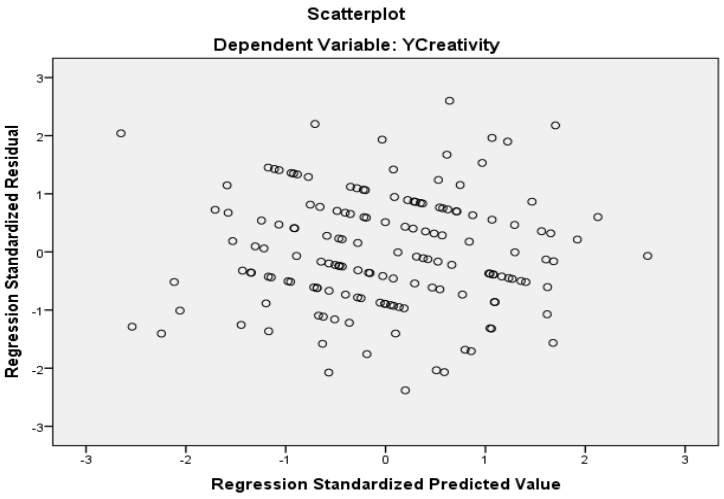
Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Appendix 6 Residuen analyse







Appendix 7 Cronbach Alpha

Case Processing Summary

		N	%
Cases	Valid	153	100,0
	Excluded[a]	0	,0
	Total	153	100,0

a. Listwise deletion based on all variables in the procedure.

Creativity

Reliability Statistics

Cronbach's Alpha	N of Items
,561	4

Creativity A and B

Reliability Statistics

Cronbach's Alpha	N of Items
,559	2

Creativity C and D

Reliability Statistics

Cronbach's Alpha	N of Items
,611	2

Big Five dimensions

Extraversion: question A _R and B

Reliability Statistics

Cronbach's Alpha	N of Items
,693	2

Agreeableness: question A and B_R

Rliability Statistics

Cronbach's Alpha[a]	N of Items
-,003	2

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Conscientiousness: question A_R and B

Reliability Statistics

Cronbach's Alpha	N of Items
,461	2

Openness to experience: question A_R and B

Reliability Statistics

Cronbach's Alpha	N of Items
,508	2

Neuroticism: question A_R and B

Reliability Statistics

ronbach's Alpha	N of Items
,566	2

Autonomy

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,863	,864	4

Management support

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,860	,859	4

Conflict

Alle Items bij elkaar, A,B_R,C / A,B_R,C / A,B_R,C

Reliability Statistics

Cronbach's Alpha	N of Items
,852	9

Correlatie Tabel

Table..Means,standard deviations, and intercorrelations of creativity, big five peronality treats, perceived- autonomy, -management support and -conflict

		M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Sex	-	.403	-												
2	Age	40.24	12.07	-,046	-											
3	Tenure in org.	10.42	10.04	,108	,539**	-										
4	Tenure in job	4.88	4.73	,080	,370**	,379**	-									
5	Creativity	3.47	.56	-,109	-,083	-,167*	-,193*	-								
6	Extraversion	3.35	.84	,269**	-,124	-,087	,221**	,252**	-							
7	Openness to exp.	3.59	.78	-,032	-,087	-,179*	-,020	,298**	,284**	-						
8	Neuroticism	2.21	.70	,056	,255**	-,164*	-,059	-,047	-,104	-,029	-					
9	Conscientiousness	3.97	.70	,167*	,076	,211**	,043	,011	-,022	,004	-,020	-				
10	Agreeableness	3.88	.53	,020	,024	,091	,068	-,187*	-,088	-,121	-,150	,028	-			
11	Autonomy	3.96	.72	-,061	,006	-,049	-,055	,161*	,122	,092	,371**	-,073	-,042	-		
12	Man. Support	3.82	.66	,155	-,093	-,002	-,122	,094	,272**	,006	-,101	,117	,087	,293**	-	
13	Conflict	2.46	.63	-,145	-,098	-,169*	-,049	,031	-,180*	,098	,185*	-,098	-,100	,253**	,450**	-

N= 153,* P < .05, ** P < .01