

Investigating the
relation between
Multi team
membership &
individual
performance and
the possible
moderating effect
of personality
traits

R.W. Dijkstra

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Department of entrepreneurship,
Innovation & strategy

Examination committee

Dr. M. de Visser (1st supervisor)

Prof. Dr. T.V. Bondarouk (2nd
supervisor)

UNIVERSITEIT TWENTE.

Content

Acknowledgements	3
Abstract	4
1. Introduction	5
2. Theoretical framework and hypotheses	6
2.1 Multi team membership.....	6
2.2 MTM, individual job performance and innovation	7
2.3 Big five character traits	9
2.4. Personality traits, performance and innovation	10
3. Method	13
3.1 Research design.....	13
3.2 Data collection.....	14
3.3 Measurements.....	14
Independent variable: MTM.....	14
Dependent variable:.....	15
3.4 Moderator variable:	15
3.5 Control variables:	16
3.6 Preliminary analysis	16
3.7 Descriptive statistics.....	17
4.0 Results	18
4.2 Correlation analysis.....	18
4.3 Hierarchical multiple regression analysis.....	19
4.3 Individual innovative performance.....	19
4.3 Individual standard performance	19
5. Discussion	22
5.1 Findings	22
5.2 Limitations.....	24
5.3 Practical implication/ future research.....	24
6. Conclusion.....	25
7. References	26
Appendix 1	27
Appendix 2 Reliability	33

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Abstract

In recent history much research has been conducted on the contemporary work environment and the deployment of project teams in this environment. It is found that in this environment the employees are often deployed in more than one team at a time (Mortensen, 2014, O’Leary et al., 2011). This phenomenon is called multiple team membership (MTM). This research topic is quite new and therefore this research is aiming at adding to the existing literature. This research focusses on the relation between MTM and individual performance, splitting individual performance into standard job performance and innovative performance, according to the Role-based performance scale by Welbourne, Johnson and Erez (1998), which focuses both on what is described as standard individual job performance as well as the innovative individual job performance. The reasoning is that both standard and innovative individual job performance are relevant for an organization to be competitive. Additionally the big five personality traits are included into the model as moderator variables, because the literature regarding this topic suggests that the big five character traits might influence the relation between MTM and performance. This research used a cross-sectional research design where the data was gathered using an online questionnaire which was distributed and completed by 70 respondents. The research question was answered by analysing the data with a hierarchical multiple regression method. The regression analysis hinted at some interesting relations, namely a curvilinear relation between MTM and individual standard job performance, as well as some moderation effects (openness and extraversion on the linear relation between MTM and innovative performance, openness and conscientiousness on the curvilinear relation between MTM and standard job performance). However, the results had to be classified as inconclusive, because the results were either not strongly significant enough or not consistent across the models. These results therefore suggest that further research is needed into this topic, which this paper elaborates on in the discussion.

1. Introduction

In an attempt to reduce cost and improve efficiency, many contemporary organizations are deploying their employees in project teams more than ever (van de Brake et al., 2018; Rapp & Mathieu, 2019, Chen et al., 2020). This phenomenon can be seen in multiple industries, from knowledge based companies to hospitals (Mortensen & Gardner, 2017). A result of this new work environment is that teams are frequently mixed, shared, created and dissolved, leading to the fact that employees are often members of more than one team at the same time (Mortensen, 2014, O'Leary et al., 2011). People are often members of more than one team because organizations want to maximize the utilisation of their human capital. Sprouting from this development is a growing interest in the effects of multi team membership (MTM), looking at team and organizational level analysis, as well as the implications for the individual (van de Brake et al, 2018; Rapp et al, 2019). Although more is being discovered about MTM, contradicting results are being published. For example, Kauppila (2014) found that MTM could lead to a more complicated and confusing working environment, while other researchers have found that MTM could enhance employees working context by improving the perceived opportunities for personal growth and learning (Matthews et al, 2012). These results are contradicting each other, which can be explained by multiple factors. Matthews (2012) pointed out that interrelationships are key for the success of multi teaming, and that collaborative personnel is needed in order for this context to succeed. Kauppila(2014) suggested that individual characteristics are important for the way people handle the context of their working environment. Both these researchers therefore point at individual factors that could influence the effect of MTM. Most of these studies research MTM in relation to the organizational or individual performance. Research links many different factors to individual performance of employees. These factors have been divided into situational and dispositional factors (Sutherland, 2007). "Situational factors include those variables such as autonomy and teamwork while, dispositional factors concern personality traits, cognitive abilities and emotional intelligence" (Sutherland, 2007). Research has shown that especially personality traits are valid predictors of individual performance. Studies have shown that individual personality is a key in team selection and team performance (Kichuk et al, 1997; Reilly et al, 2002), and that personality traits are linked to productivity (Cubel et al, 2016). Furthermore, researchers have found that personality traits have influence on how people react to ambiguity (Jach & Smillie, 2019), which is a factor that is frequently found in a MTM context (van de Brake et al, 2019). Adding to this, researchers have also linked personality traits to how individuals handle multitasking. (Mesmer-Magnus et al, 2014; Salomon et al, 2015). Both ambiguity and multitasking are important and frequently occurring aspects of a MTM context, therefore it is important for individuals that they can handle these aspects positively. Researchers have found that personality can predict the size and structure of information networks and the ties within these networks (van de Brake, 2020). Researchers have linked the strength of these ties to personality traits and the outcome on innovation and job performance (Rapp et al, 2019; van de Brake, 2020). Moreover, personality is also linked to other aspects of individual performance, such as innovation and overall job performance. (Patterson et al., 2017, Goldsmith, 1984; Marcati et al, 2008, Chandrasekara , 2019, van de Brake et al, 2020). Even more applicable to this topic, Chan (2014) found that innovative

performance (the ability which an individual shows regarding idea generation, idea promotion and idea implementation) had an inverted U relationship with MTM on the individual level. It seems that there is foundation to support the idea that individual performance in a MTM context is dependent on what personality you have, given the fact that personality seems to be correlated to productivity, innovation, overall job performance and how you handle important aspects of a MTM context. It seems relevant to investigate this connection between personality and individual performance. There is no research done on this connection and a research on this topic could lead to better understanding why people respond differently to a MTM context and therefore perform differently. This could therefore lead to better HRM practices for hiring and selecting people for MTM positions and better job performance. Based on these arguments the following research question is proposed:

“What is the relationship between individual performance and multi team membership and to what extent is it moderated by the big five personality traits?”

MTM is a relatively new topic for researches, which means that there is limited knowledge about the topic. With this research question the aim is to supplement the limited existing knowledge by explaining the relationship between MTM and individual performance and by explaining if individual personality traits have influence on this relationship. This could contribute not only in a theoretical way, but also have practical implications for organizations, because it might suggest that personality traits should be taken into account when people are placed into a MTM working environment. The research will take differentiate between individual innovative performance and individual standard job performance, because besides task performance (standard job performance), innovative capabilities are vital for organizations to stay relevant and to stay ahead of the competition. (O'Leary et al., 2011)

2. Theoretical framework and hypotheses

2.1 Multi team membership

Multi team membership (MTM) is described as the simultaneous involvement in different project teams by an individual (O'Leary et al, 2011; Ying, 2014). When the term is broken down into the three components all three parts are important for further analysis. Firstly, 'multiple' describes the fact that the individual is part of more than one team at a point in time. Even though this is obvious, it is important to take this into account in the later parts of the research, because it should be ensured that the analysis is done with participants who have experience with being part of more than one team at a given time. The second part 'teams' is described as 'dynamic entities of two or more interdependent individuals who work together toward common goals' (Peralta et al, 2018). The third part membership means that every individual in the team recognizes each other as part of the team and share responsibility for success and failure and trust each other with that responsibility for achieving an agreed upon goal (O'Leary et al, 2011). MTM can occur within a multi team system (MTS) or outside one, meaning that an individual can work for a single company (which can be a MTS), or the individual can work for multiple organizations at once (O'Leary et al, 2011). Being part of

more than one team can result in the situation that a person has different roles among the teams the employee is part of. This can have benefits, such as having access to more resources (O'Leary et al, 2011).

Pluut et al. (2014) found that MTM was related to a negative impact on a person's well-being due to conflicting expectations and/or an overload of demands from the projects and lower received social support from team members.

2.2 MTM, individual job performance and innovation

Research involving MTM has focussed on many topics, such as organizational and team effectiveness and information sharing (van de Brake et al, 2019) However, in this research there will be a focus on individual and its job performance as well as its innovative performance related to MTM. O'Leary et al. (2011, 466) defined productivity as "the ability to create products or services that meet the expectations of key stakeholders in a given time period with a given set of human and other resources". Productivity is linked to job performance, which can be divided into three aspects (1) joining and keep working for one organization, (2) obliging towards the role specific requirements within the organization, and (3) innovative and creative abilities outside the role specific requirements (Katz & Kahn, 1978). Job performance is described as task performance, which entail the establishment and sale of products or services of an organization in the most efficient and effective way possible (Motowidlo & Scotter, 1994). Besides task performance there is contextual performance, which is divided into five sections, namely (1) doing tasks that are not in the job description without being asked, (2) have perseverance by always wanting to finish tasks to the best of abilities, (3) helping others and working together, (4) oblige to rules and regulations as posed by the organization, and (5) being dedicated to the goals of the organization by offering support and assistance (Borman & Motowidlo, 1993). Welbourne, Johnson and Erez (1998) have developed the Role-based performance scale, which focuses both on what is described as standard individual job performance as well as the innovative individual job performance. Because it is important to be innovative in order to be competitive in any field or in order to solve problems, this research will focus on the implications MTM has on the innovative performance of the individual as well as on the standard job performance. The reasoning is that both are relevant for a company to get a competitive edge.

Jansen (2000) has conceptualized innovative work behaviour (IWB) as the deliberate creation, introduction and application of new ideas in a work role, a group or the organization as whole that are beneficial to performance. Multiple studies have used this definition to promote the idea that innovation consists of three stages (Veenendaal & Bondarouk, 2015; Bos-nehles, Bondarouk & Nijenhuis, 2017). The first stage is idea generation, which is the creativity stage (Mustafa et al.,2018; De Jong and Hartog, 2008). This encompasses exploration of opportunities and the generation of new ideas. This stage requires an open attitude and cognitive flexibility where many possible solutions are generated (Perry-Smith et al.,2017). Some researchers argue that the first phase has one more phase, namely the elaboration phase (Perry-smith et al., 2017). For this study it is not necessary to elaborate on this phase, because it has no additional value. The second phase is the idea 'championing' phase. In this phase the

generated idea is promoted in different parts of the organization to find support for further development (Veenendaal & Bondarouk, 2015, Perry-Smith et al., 2017). For the second phase they recognize that support is needed. This is needed to relieve uncertainty and to give constructive feedback so the idea can be further developed. This also includes getting the right people involved and getting sponsorship. The third phase is the implementation phase, where a shared vision and understanding is needed (Perry-Smith et al, 2017). This can be achieved by testing adjusting the product/system to make it part of the organization (De Jong & Hartog, 2010).

Based on the research of O'Leary et al. (2011) and Chan et al (2014) it is hypothesised that up to a certain point the higher the number of teams a person is member of at a certain point, the better the person can focus on the main tasks he or she has to perform. By being involved in multiple teams at the same time, the individual may encounter a wider array of concepts across all teams and thus he/she might get inspired to come up with new more innovative ways to solve a particular problem. As the number of multiple team memberships increases however, an individual might eventually get overloaded with work, which might lead to the person only focussing on the minimum work and not engage in sharing ideas with team members. Furthermore, Edmondson and Nembhard (2009) mention that team members need time to know each other before they can work together effectively as a team. Naturally that means that by being involved in multiple teams, an individual has the repeated opportunities to learn "to team-up" and to build swift trust with new members. However, too many memberships can lead to overloading of stress and burn-out symptoms. Also, MTM may extend an employee's social network across multiple teams, allowing him or her to effectively transfer resources/information between teams and, therefore achieve superior individual performance outcomes across tasks and teams (van de Brake, 2020). These social-networks are built upon social-network ties and the strength of these ties. Researchers have linked the strength of these ties to personality traits, and the outcome on innovation and job performance (Rapp et al, 2019; van de Brake, 2020). Van de Brake (2020) found that the strength of the network ties is related to MTM and performance in such a way that MTM only improves performance when the network ties are relatively weak. Taking into account the findings of Rapp et al (2019), who found that conscientiousness and neuroticism are related to weaker ties, it can explain why some individuals flourish in an MTM context and some individuals do not. Furthermore, these networks are used to explain how people use and share information, which can lead to innovative ideas and behaviour (Rapp et al. 2019). From this research it can be concluded that the bigger the network size the better the innovative opportunities and therefore performance would be, because a bigger network size would mean more information flow and therefore idea generation. However, taking into account the statements of O'Leary (2011), it seems more likely there is an optimum, because of a too large network (or too many memberships) would lead to too much stress and therefore not enough time for innovative behaviours. This therefore leads to the person only performing standard work behaviour, and no creative work behaviours which exceed the standard work. The first hypothesis therefor is:

Hypothesis 1: The relationship between the number of a person's multi team memberships and its individual innovative performance has an inverted U relation; the positive relationship increases at a decreasing rate and eventually turns negative.

When it comes to individual standard job performance, a similar analysis can be made. First of all, according to van de Brake & Walter (2020) job performance is affected by MTM through the tightness and strength of the information-sharing network of the individual. This means that the stronger the average relationships are in the network, the lower the overall job performance is. The fact that more team memberships mean more ties and therefore more chances for stronger ties, the effect of time optimization seems to have an optimal level, which means an optimal level of MTM. Adding to this finding, Salomon et al (2016) found that multitasking ability was linked to performance. This is interesting in this context, because in a MTM context it is vital to be able to handle multitasking well. Together with the aforementioned reasoning of O'Leary et al. (2011) and Chan (2014), this leads to a similar hypothesis for the standard job performance and MTM

Hypothesis 2: The relationship between the number of a person's multi team memberships and its individual standard job performance has an inverted U relation; the positive relationship increases at a decreasing rate and eventually turns negative.

2.3 Big five character traits

Scientists have been developing and perfecting models to predict and explain people behaviour for a long time, however, one of the most widely accepted models to measure ones personality is the big five personality models by Goldberg (1990). This model explains personality with five core factors: conscientiousness, agreeableness, neuroticism, openness to experience and extraversion. The model is based on the assumption that each factor describes a spectrum of someone's personality, unlike the binary way of the other theories. The factors describe the following traits:

- Conscientiousness: impulsive and disorganized vs. disciplined and careful
- Agreeableness: suspicious and uncooperative vs. trusting and helpful
- Neuroticism: calm and confident vs. anxious and pessimistic
- Openness: prefers routine and practical vs. imaginative and spontaneous
- Extraversion: reserved and thoughtful vs. sociable and fun-loving

The big innovation of the big five character model is that it recognizes that people's personalities are not at the end of a spectrum, but rather somewhere in between. Although the five factors encompass a vast array of character traits, it is the most comprehensive and well thought out model, which is the reason it will be used to describe personality traits. It is also noteworthy that these traits span cross culturally (Lim, 2020; Rapp et al, 2019), which is an important fact, because it means that these traits are more genetically dependent than

culturally depended. Although it has been shown that personality traits can change throughout someone's lifetime (Borghuis et al, 2017).

2.4. Personality traits, performance and innovation

The next part will explain how innovation, personality traits and innovative performance are linked. The reason this is done because it can clarify why certain personality types can result in different results regarding capabilities to innovate. Afterwards there will be an elaboration on personality traits and standard individual job performance.

Innovation

Researchers have been looking at the relationship between innovation and peoples individual character traits for the past decades (Goldsmith, 1984; Marcati et al, 2008). Goldsmith (1984) said that there are character traits linked to consumers' innovativeness, their creative style, and their ability to solve problems. Perry-smith et al (2015) looked at the innovation process and how personality played a role in this and found that for every step of the innovation process a different set personality trait is needed. This implies that in order for an idea to come to fruition, a divers set of people is needed. This is quite interesting when this knowledge is combined with the findings of Rapp et al (2019), which found that people's personality traits influence their social/innovation network. These findings imply that to optimize innovation networks and therefore innovation, different personality traits at different points of the process, not only because they act and think differently, but also because they use their networks differently.

Gelade (2002) stated that general innovation is positively linked to extraversion and openness and negatively correlated to conscientiousness and neuroticism. They say that their open and extraverted nature enables them to think outside the box as well as to champion their new ideas to a working group. Openness to experience and extraversion are linked to positively affect creative behaviours for different groups of employees (Stock et al. 2016). According to Zhao and Seibert (2006), an open person characterizes someone who is intellectually curious and tends to seek new experiences and explore novel ideas. Kwang et al (2011) found that there are differences between the two types of creative people; adapters and innovators. They found that innovators are more extraverted and open to experience, which supports the ideas of Marcati (2008) and Gelade (2002). According to Stock et al. extraverted people are assertive, dominant, energetic, active, talkative, and enthusiastic. They enjoy social activities and prefer being with others than being alone. This is useful in MTM context, because people have to work together to perform. Additionally, it was found that personality affects the social network of the individual, and therefore the innovative capabilities of the individual (Rapp et al, 2019). It was found that the density and structure of the network determine how information flows through the network. It was found that extraverted and agreeable people have strong ties and fewer structural holes, which could be helpful in a MTM context. Furthermore it was found that openness to experience in individuals can be explained in two

ways, openness to internal experience and to external experience Griffin and Hesketh (2004). When someone is open to external experience they are more attentive to their surroundings, which could mean that they are more open to taking in information of other team members and process this information into an innovative idea.

Based on this information, the second and third hypotheses are formulated as follows:

Hypothesis 2: Openness to experience has a positive moderating effect on the relationship between individual innovative performance and MTM.

Hypothesis 3: Extraversion has a positive moderating effect on the relationship between individual innovative performance and MTM.

The implications of the remaining three Big Five personality traits for successful ideation are more contradicting, because some studies found that creative scientists are less conscientious (George and Zhou, 2001), while other studies found positive associations between creativity and conscientiousness (Feist, 1998). Both agreeableness (King et al., 1996) and neuroticism (Rothmann and Coetzer, 2003) have sometimes been found to correlate negatively with creative achievements. However, Ghazzawi et al (2021) found that emotional stability was correlated to creativity within nurses. He found that emotional stability was linked to creativity within nurses, which was explained by the fact that emotional stable individuals could handle stressful situations and therefore think creatively, even when the stress levels are high. This supports the ideas of Morgeson (2015), which states that emotional stable individuals tend to have less negative emotions, which leads to the individual being able to think more clearly. Barrick and Mount (1991) also found a positive relation between emotional stability and job performance. Although not the same, this furthermore supports the notion that emotional stability and individual innovative performance is related. Taking this information into account, it was thought that emotional stable (low neuroticism) could be beneficial in a MTM context, because when an individual experiences less stress or can handle stress better, they could have more energy to think in an innovative way besides doing their standard tasks.

Based on these arguments the fourth hypothesis is formulated as:

Hypothesis 4: Emotional stability has a positive moderating effect on the relationship between individual innovative performance and MTM.

Hypothesis 5: Conscientiousness has a no moderating effect on the relationship between individual innovative performance and MTM.

Hypothesis 6: Agreeableness has no moderating effect on the relationship between individual innovative performance and MTM

Individual job performance

Since the establishment of the five factor model for personality, it has been used to explain differences between individuals in their job performance (Barrick et al. 1991, Barrick et al. 2001, Hurts et al. 2000). Barrick et al. have found that emotional stability (low neuroticism) and conscientiousness are related to job performance. The other traits have been found to be more contextual dependent with regards to job performance (Barrick and Mount, 1991). Extraversion is good predictor for jobs that require social interaction, similar to agreeableness which is a good predictor when interpersonal interaction is required (Barrick and Mount, 1991). Openness is only found to be a good predictor in the context of job learning and training. According to Griffin and Hesketh (2004) this lack of predictive capacity is due to the fact that openness can be divided in *internal* openness and *external* openness. They suggested openness to external experience is positively associated with change receptiveness and variety seeking behaviour, implying a degree of cognitive flexibility. It is suggested that these behaviours focus one's attention on the external environment, helping them to navigate change and remain responsive to their surroundings. On the other hand behaviours associated with internal openness are hypothesised to cause less awareness to the external environment, focusing on internal introspection over their assigned tasks. Based on these findings it was chosen to also include these remaining three traits. Extraversion is included based on the fact that a MTM context builds on social interaction, and therefore is relevant in the context of this research. Same can be said for agreeableness; the MTM context requires people to work together. Therefore the trait should be included into the research. Openness to experience is included based on the fact that it is associated with awareness to the external environment and the variety seeking behaviour.

Based on this information the following hypotheses are formulated:

Hypothesis 5: conscientiousness has a positive moderating effect on the relation between standard job performance and MTM

Hypothesis 6: emotional stability has a positive moderating effect on the relation between standard job performance and MTM

Hypothesis 7: Openness to experience has a positive moderating effect on the relation between standard job performance and MTM

Hypothesis 8: Extraversion has a positive moderating effect on the relation between standard job performance and MTM

The mentioned hypotheses are summarized and conceptualized into the models showed in the figures 1 and 2.

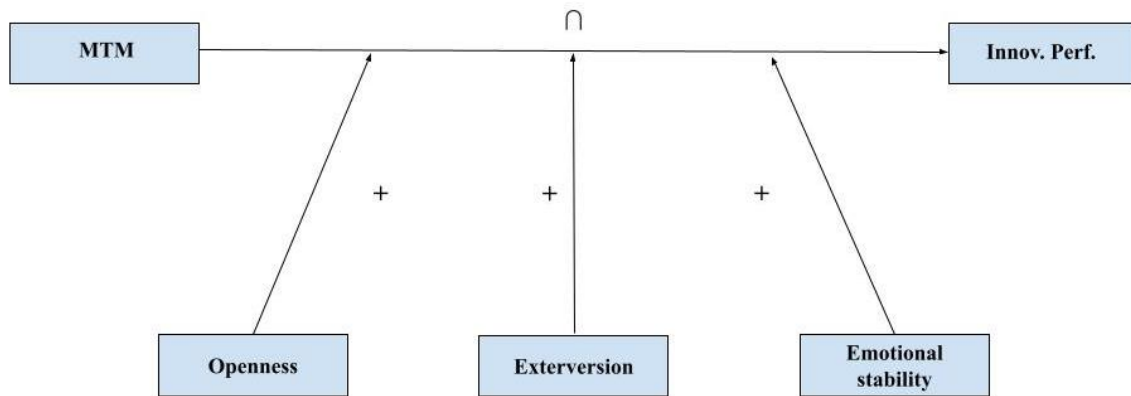


Figure 1; conceptual model Individual innovative performance

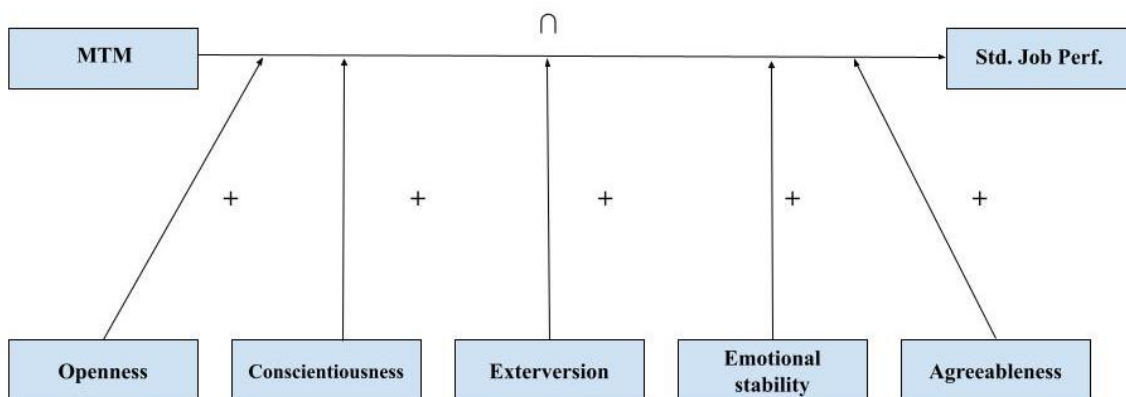


Figure 2 Conceptual model standard job performance

3. Method

3.1 Research design

It was chosen to use a quantitative and deductive research approach for this research, because this research builds upon the existing theories of MTM, standard job performance, individual innovative performance and personality traits and it is aiming to test the hypotheses which are derived from these researches. It was chosen to use a (online) questionnaire, because in that way more people could be reached. By the time the choice had to be made about what type of data collection method would be needed, the corona pandemic had broken out. This severely limited the options which would be appropriate for this research, which lead to the choice of the questionnaire. Because of this choice, the research became also a cross-sectional research, because the people were contacted at one point in time.

3.2 Data collection

In order to ensure a smooth and easy distribution of the questionnaire the computer software Qualtrics was used. Because of the pandemic the distribution was mostly done by email, and because in that way more people could be reached. Some of these contacts were able to spread the questionnaire within their respective firms, but to ensure more diversity in the respondents it was also chosen to distribute the questionnaire on platforms such as LinkedIn.

It was chosen to limit the research to Dutch speaking citizens, because it was thought that in this way the barrier for participation was limited and therefore more respondents could be gathered. This did mean that the scales and their questions had to be translated into Dutch. This was later verified for correct translation before it was programmed into Qualtrics. Lastly it was ensured that the respondents could remain anonymous. This would result in the fact that less hurdles had to be overcome for people to respond. After the questionnaire was programmed it was sent to students and researchers to check if there were no bugs and if everything worked properly, after which the survey was handed out. The questionnaire can be found in the Appendix 1.

The process resulted in 82 individual respondents, of whom 70 were filled in until the end. Because the fact that anonymity was desirable, no managers or could be asked to fill in the scales for personality or performance to ensure verification for these scales. This means that the scales should be interpreted as perceived performance and personality traits by the respondents themselves.

3.3 Measurements

Independent variable: MTM

According to O'leary et al. (2011) and Mortensen et al. (2015), Multi team membership can be measured on three different dimensions. The first dimension is the number of teams an individual is part of at a given point in time. According to O'Leary (2011) this is a good predictor for a curvilinear relation between MTM and job performance. The second dimension is variety of team memberships. Variety can be described as the different tasks or characteristics of the teams an individual is a member of (O'Leary et al., 2011). The third dimension is the fragmentation of time. This can be described as the division of one's time over the different teams an individual is part of at a given point in time. For this research it is chosen to measure MTM by measuring the number of teams an individual is part of. Variety was deemed to be evasive of the respondents' privacy, and therefore was omitted. To measure the number of teams an individual is part of, the following question will be asked: *"In how many teams are you involved at this point in time?"* It was chosen to keep the question open, and not specify it to one organization, based on the fact the MTM can occur outside an organization as stated by O'leary (2011). It is also relevant to take into account the teams outside the organization an individual is employed in, because they also require attention of the individual and therefore impact their performance within the organization.

Dependent variable:

Individual Innovative performance

Individual innovative performance is measured using the nine items proposed by Janssen (2001). These items were based on Scott and Bruce's (1994) scale for individual innovative behaviour in the workplace, which draws on Kanter's (1998) work on the stages of innovation, namely, idea generation, idea promotion and idea realization. This scale is also used by Chan (2014). The questions which were asked can be found in Appendix 2. The scale was measured using a 7 point Likert scale, ranging from 1 strongly disagree to 7 strongly agree.

In order to ensure that the scale is reliable a Cronbach's Alpha test was conducted. This test will be seen as successful if the threshold of 0,5 for up to 5 questions is met, or 0,7 for 5 questions or more. For the scale of Janssen (2001) the test result was 0,856, which is satisfactory and means that the scale is reliable.

Individual standard job performance

The scale which was chosen to test standard job performance was also developed by Janssen (2001). This scale tests the job related performance; which includes the fulfilment of job requirements as are the contextual performance by focusing on those duties that are essential to the overall job performance of that individual.

The Cronbach's alpha test for this scale is 0,574. Before the test could be calculated the third question "*I often fail to perform my essential duties*" had to be reversed, because it then is formulated in the same way as the other question. Although the result of the test is not as strong as one would hope, it was accepted for this research. However, it should be taken into account when analysing the results of the research.

3.4 Moderator variable:

To measure the personality traits as moderator, the Big Five Personality Test by Goldberg (1992) is used. In this Big Five Personality Test all five personality traits are taken into account. The questions in the two scales had to be answered using the 7-point scale that varied from (1) strongly agree to (7) strongly disagree. Before the scale was tested for reliability some questions needed to be reversed, because of the fact that only questions which are formulated in the same positive or negative way can be compared.

For the trait extraversion the questions that were asked can be found in the Appendix 2. Before the Cronbach's alpha test could be calculated, two of the ten questions had to be reversed. For the scale extraversion the Cronbach's alpha was 0,872, which indicates that the scale is reliable. This means that it was not necessary to remove questions to ensure reliability.

For the trait Neuroticism the questions that were asked can be found in the Appendix 2. Before the Cronbach's alpha test could be calculated 3 out of the 8 questions needed to be

reversed. After this step the Cronbach's alpha for the scale was 0,809. This meant that none of the questions needed to be deleted to make the scale reliable.

For the trait openness to experience the questions that were asked can be found in the Appendix 2. Before the reliability test could be done, two of the ten questions needed to be reversed. After this procedure the Cronbach's alpha test came out at 0,766, meaning that no questions needed to be removed to assume reliability.

For the traits conscientiousness the questions that were asked can be found in the Appendix 2. Four out the ten questions had to be reversed before the reliability test could be carried out. After this procedure the test score was 0,751, which meant that no question needed to be removed to assume reliability of the scale.

For the trait agreeableness the questions that were asked can be found in the Appendix 2. Four of the nine questions had to be reversed before the scale could be tested for reliability. After this procedure the test outcome was 0,594. SPSS concluded that questions which were reversed could raise the test result if they were deleted. After they were deleted the Cronbach's alpha tested at 0,673 for 5 questions, which can be seen as reliable.

3.5 Control variables:

To get some insight into the distribution and the type of jobs of the respondents, the question "In which type of sector are you employed" is added. It is theorized that the type of employment might have influence on the performance of the individual, which is in line with the findings of Barrick et al (1991). The options identified by Barrick et al (1991) can be found in the appendix 1. Because there are 17 industries identified by Barrick, not all industries could be taken into account for the model. Therefore it was chosen to limit this variable to the two most selected industries, which were business services and commercial businesses. Besides this control variable there will be questions asked about the gender and highest education of the respondent.

3.6 Preliminary analysis

High multicollinearity is a problem because that would mean that independent variables are highly correlated with each other. In order to avoid a multicollinearity problem it was chosen to mean centre all variables. This was done by calculating a new variable, which had the mean of the variable being subtracted from the original value of the variable. This research is looking into the different effects of different variables on the relation between MTM and performance, therefore it was chosen to use the hierarchical multiple regression (Pallant, 2013). The hierarchical multiple regression analysis for this research contains six steps. These steps can be found in the table 2.

3.7 Descriptive statistics

Before any analysis of the results can be done it has to be determines what type of data has been gathered. The total number of respondents was 83 respondents. This number was adjusted to 70 because some respondents did not fill in the questionnaire entirely. Of the 70 respondents 46 were male and 24 were female. The oldest person was 62 and the youngest 17. The respondents had a high level of education, looking at the fact that 58,6% of the respondents had an academic education (bachelor and master), while HBO level accounted for 38,6% of the respondents. The summary of the descriptive statistics can be seen in table 1.

	Mean	Std. Deviation	N
1 MTM	3,99	3,399	70
2 Perceived job performance	5,7257	,71031	70
3 Individual innovative performance	4,9095	,84393	70
4 Openness	4,9500	,80641	68
5 Conscientiousness	5,1797	,76741	68
6 Extraversion	5,0531	1,03269	69
7 Agreeableness	5,4912	,73256	68
8 Neuroticism	3,4832	,52438	69
9 Age	33,0580	11,66428	69
10 Education	5,56	,555	70
11 business services	,2615	,44289	65
12 commercial services	,1449	,35461	69

Table 1 Descriptive statistics

4.0 Results

4.2 Correlation analysis

Correlation tests are done to describe how strong and in which direction the relationship between two variables is (Pallant, 2013). When the r is between 0.3 and 0.5 the correlation can be seen as moderate and when the r is higher than 0.5 the correlation can be seen as strong. Also, the significance of the correlation can be seen as strong when $p < 0.01$ or moderate but still significant at $p < 0.05$.

The first point that is noticeable is that MTM is not correlated with any of the personality traits or performance scale and only correlated with age. This has the implication that MTM is not associated with higher levels of one of the performance scales or personality traits.

Furthermore it can be noticed that perceived individual standard performance is correlated with openness, conscientiousness and extraversion. Added to this standard job performance is negatively correlated with neuroticism. This is in line with the literature, which suggests that people who are conscientious tend to have better performance. Extraversion and openness are not directly linked to performance, however these might help in the context of MTM, because they tend to help people negate the stimuli which are common in a MTM context, such as working together with many colleagues. The results can be seen in table 2.

	1	2	3	4	5	6	7	8	9	10	11	12
1 MTM	1	,084	,025	,057	,046	,072	-,003	-,177	,370**	,081	-,057	,211
Independent variables:												
2 Perceived job performance	,084	1	,169	,240*	,394**	,285*	,168	-,261*	,224	,084	-,104	-,219
3 Ind. Innoy. performance	,025	,169	1	,448**	,159	,557**	,340**	-,175	,261*	,071	,193	-,197
Moderator:												
4 Openness	,057	,240*	,448**	1	,396**	,363**	,266*	-,214	,338**	,038	,001	-,126
5 Conscientiousness	,046	,394**	,159	,396**	1	,222	,088	-,387**	,135	,011	,230	-,103
6 Extraversion	,072	,285*	,557**	,363**	,222	1	,353**	-,276*	,176	,110	,035	-,060
7 Agreeableness	-,003	,168	,340**	,266*	,088	,353**	1	-,372**	,123	-,064	-,093	-,084
8 Neuroticism	-,177	-,261*	-,175	-,214	-,387**	-,276*	-,372**	1	-,274*	,050	-,044	,008
Control variables:												
9 Age	,370**	,224	,261*	,338**	,135	,176	,123	-,274*	1	-,078	,077	-,068
10 Education	,081	,084	,071	,038	,011	,110	-,064	,050	-,078	1	,004	,111
11 business services	-,057	-,104	,193	,001	,230	,035	-,093	-,044	,077	,004	1	-,254*
12 commercial services	,211	-,219	-,197	-,126	-,103	-,060	-,084	,008	-,068	,111	-,254*	1

Table 2 Pearson's correlation table Note; ** $p < 0,01$ and * $p < 0,05$

4.3 Hierarchical multiple regression analysis

After testing the correlations between the variables a hierarchical multiple regression analysis is done to test the hypotheses. Because the individual performance is tested with two types of scales the analysis is done two times. The analysis will be done for both types of individual job performance scale and individual innovative performance as mentioned in the method section.

4.3 Individual innovative performance

The first step for the analysis is to enter the control variables as independent variables. The results show a moderately significant correlation between age and individual innovative performance. This means that a higher age is correlated with higher innovative performance (Beta = .18, $p < 0.05$), which implicates that age is a predictor of higher innovative performance. After this the centred MTM variable was added to the model. No significant results were found in this model. Following this the squared centred MTM variable was added to the model which also resulted in no significant results, which implicates that there is no curvilinear relation between MTM and individual innovative performance. The next step was to add all the moderator variables to the model, where a direct effect of the personality traits extraversion was found. This effect was moderately strong (Beta = .331, $p < 0.05$), which indicates that a higher level of extraversion is associated with higher levels of individual innovative performance. This significance remains in the next model, but is joined by the personality trait openness to experience with a moderately strong significance (Beta = .308, $p < 0.05$). This indicates that besides extraversion openness is associated with higher levels of innovative performance in the model 5. The moderator effect of personality traits on the relation between MTM and individual innovative performance was not found, due to the fact that no significant results were found for those variables. In the last model where the moderation effect on the curvilinear relation was tested no significant results were found, meaning that personality traits are not predictors of the level of innovative performance. The results can be found in the table 3

4.3 Individual standard performance

The same procedure as for the previous scale was undertaken, so first the control variables were added. Again age was a significant predictor in the first model (Beta = .18, $p < 0.05$). The effect was moderately strong, which can be interpreted as that age is a positive predictor for higher levels of job performance. The next model had the centred MTM variable added, where no significant results were found, therefore concluding that MTM is not a predictor of the level of standard job performance. The third model had the centred and squared MTM variable added, where not a significant effect was found between any of the variables. In the fourth model the moderator variables of the personality traits were added, where no significant results were found, which indicates that the standalone personality traits are no predictors of job performance. This was also the case for the next model, where the

moderation effect of personality traits on the linear relation between MTM and job performance, where no significant results were found. In the last model where the moderator variable of personality traits on the curvilinear relation between MTM and standard job performance was added did result in significant results. Firstly the squared and centred MTM variable was found moderately significant; indicating that in this model a curvilinear relation was found predictive of the level of job performance. Secondly the moderator variable of openness on the centred MTM was found moderately strong. This means that the interaction between openness and MTM was found moderately predictive of effecting job performance. Thirdly it was found that the moderator variables of the squared MTM and openness (Beta = -.56 $p < 0.05$), and the squared MTM and conscientiousness (Beta = .045, $p < 0.05$) were found significant. This means that the curvilinear interaction of MTM and openness was found predictive of the level of job performance, as well as the curvilinear interaction of MTM and conscientiousness. The results can be found in the table 4

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Beta	Beta	Beta	Beta	Beta	Beta
Step 1:						
Age	,018*	,019	,022*	,006	,004	,006
Education	,110	,112	,187	,102	,121	,189
business services	,259	,256	,339	,423	,460	,502*
commercial services	-,417	-,397	-,251	-,159	-,207	-,101
Step 2:						
MTM		-,010	-,076	-,029	-,016	-,057
Step 3:						
MTM squared (MTMS)			,008	,003	-,003	,012
Step 4:						
Openness				,277	,308*	,347
Conscientiousness				-,149	-,245	-,316
Extraversion				,331*	,295**	,240
Agreeableness				,168	,130	,156
Neuroticism				-,148	-,276	-,445
Step 5:						
MTM * Openness					,052	,070
MTM * Conscientiousness					-,091	-,118
MTM * Extraversion					,006	,003
MTM * Agreeableness					-,068	-,047
MTM * Neuroticism					-,115	-,206
Step 6:						
MTMS * openness						-,011
MTMS * Conscientiousness						,014
MTMS * Extraversion						,004
MTMS * Agreeableness						-,001
MTMS * Neuroticism						,021

Table 3 Hierarchical Regression Individual innovative performance **Note; ** $p < 0,01$ and * $p < 0,05$**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Beta	Beta	Beta	Beta	Beta	Beta
Step 1:						
Age	,015*	,015	,017*	,013	,009	,017
Education	,143	,143	,200	,163	,157	,206
business services	-,321	-,321	-,259	-,373	-,296	-,340
commercial services	-,539*	-,539*	-,429	-,397	-,458	-,486
Step 2:						
MTM		#####	-,049	-,051	-,049	-,082
Step 3:						
MTM squared (MTMS)			,006	,006	,006	,023*
Step 4:						
Openness				,006	,033	,254
Conscientiousness				,268	,226	-,006
Extraversion				,084	,036	-,039
Agreeableness				-,080	-,082	-,333
Neuroticism				-,084	-,247	-,374
Step 5:						
MTM * Openness					,017	,155*
MTM * Conscientiousness					-,028	-,089
MTM * Extraversion					,013	,042
MTM * Agreeableness					-,110	-,155
MTM * Neuroticism					-,035	,008
Step 6:						
MTMS * openness						-,056*
MTMS * Conscientiousness						,045*
MTMS * Extraversion						,015
MTMS * Agreeableness						,050
MTMS * Neuroticism						,053

Table 4 Hierarchical regression individual standard job performance Note; ** p<0,01 and * p<0,05

5. Discussion

Working in teams is regarded to be more effective than working individually especially when individuals are working on complex tasks (Hinsz, Tindale & Vollrath, 1997). This means that to get the maximum out of the human capital, team work is necessary and encouraged. A result of this phenomenon is that teams are frequently mixed, shared, created and dissolved, leading to the fact that employees are often members of more than one team at the same time (Mortensen, 2014, O'Leary et al., 2011). Sprouting from this development is a growing interest in the effects of this multi team membership (MTM). Having multiple team memberships (MTM) concurrently will impact on both the individual and the team's performance as suggested by O'Leary et al. (2011). This study was guided by the following research question: How is the relationship between individual performance and multi team membership moderated by the big five personality traits? The aim of the research was to provide the empirical evidence to the first proposition developed by O'Leary et al. (2011): The relationship between the number of teams individuals are members of and performance at the individual level is curvilinear; the positive relationship increases at a decreasing rate and eventually turns negative. In this section, the most important findings of this study are provided and some managerial recommendations as well as recommendations for future research are provided.

5.1 Findings

The first finding is that the first hypothesis that predicted a curvilinear relation between MTM and individual innovative performance does not hold up. This is contradicting the statements of O'Leary who predicted that MTM would be beneficial for someone's time management up to a certain level from which it would be detrimental for the job performance. It was thought by O'Leary that with too few projects an individual had too little pressure which could lead to poor time management, while too many project teams would lead to too much pressure and tasks which would lead to the individual doing their tasks insufficiently. A reason for not finding the significant result might be due to the respondents' average amount of teams they are part of. The average respondent was part of 3,99 teams, which is lower than the 8,92 which Bertolotti et al. (2015) found in their research. This is thought because the spread of the amount of project teams is too little; therefore the data might not include the tipping point of the optimal amount of memberships an individual might be part of. To have a more accurate picture of how MTM influences innovative performance, one could collect data from a population which are part of more teams.

When looking at the data of the second hypothesis it seems that the data is inconclusive about the fact if there is a curvilinear relation between MTM and standard individual job

performance. Although in the last model there was a statistically significant result found, it was not very strong ($p < 0,05$) and also not of a high magnitude (beta = ,023). Additionally in the other models there were no significant results found, which leads to the conclusion that the hypothesis has to be rejected. Similarly to the first hypothesis this could be due to the nature of data and the respondents work environment, which do not allow testing the environment of having pressure from many teams. To get a better picture more data could be collected and added from individuals who are member of more teams, which could lead to the data including the tipping point of the optimal memberships an individual might have.

When looking at the hypothesis which predicted that openness had a positive moderating effect on the relation between individual innovative performance and MTM it can be concluded that there is basis for the assumption that openness has a moderating effect on the relation between individual innovative performance and MTM, based on the fact that in the fifth model the result was beta = ,308 with $p < 0,05$. Although it has to be said that this result was only found for model and the effect was moderately significant, which means that one should be careful of saying that this result is strong. Similarly for the next hypothesis which stated that Extraversion has a positive moderating effect on the relationship between individual innovative performance and MTM, it can be stated that there is basis for the assumption that this hypothesis is true, however, it was only found for model 5, which means that it is not strong evidence. For both cases it is true that the moderating effect was only found for the linear relation between MTM and individual innovative performance, which is contradicting the assumption that MTM has an optimal point after which the effect becomes detrimental for the performance. The next hypotheses which predicted no relation between conscientiousness and agreeableness on the relation between individual innovative performance and MTM holds up based on the fact no significant results were found.

When looking at the next hypothesis which states that conscientiousness has a positive moderating effect on the relation between standard job performance and MTM it can be stated that this hypothesis cannot be fully supported, on the basis that there results were trivial. The only model which showed significant results was the sixth model, where the result was moderately strong and not very big (beta = 0,045, $p < 0,05$). To be considered strong evidence the results should have been more significant and bigger. It is also curious that the direct effect of trait conscientiousness is not significant, which one would predict. This is certainly contra predictive, because the trait conscientiousness is related to job performance, hard work ethics and reliability (Morgeson et al., 2015). The fact that a direct effect of the variable is not found is therefore very remarkable.

For the hypothesis which stated that openness to experience has a positive moderating effect on the relation between standard job performance and MTM has not enough basis to be accepted. This is because the results are not conclusive on what the effect of the trait openness to experience is, based on the fact that for the linear relation the result is positive (beta = 0,155) and for the curvilinear relation the result is negative (beta = 0,056). A reason for the conflicting results might be that the traits are too brought to be conclusive in these sensitive analyses. As stated by Griffin, B., & Hesketh, B. (2004) the traits openness is an overarching

term which consists of a variety of different sub traits, which all have different connections and effects on a variable such as job performance.

For the hypothesis that stated that extraversion has a positive moderating effect on the relation between standard job performance and MTM, it can be concluded that there was no basis to accept the hypothesis. This means that although an individual is more equipped to handle social interactions and situations this does not result in better job performance.

5.2 Limitations

This research has its limitations. Firstly, the study only investigates one proposition from O'Leary et al (2011), namely the amount of teams an individual is part of. To get a better picture of how an individual spends its time or how much energy they are putting into each project team. For a further investigation it is advisable to also take into account the distribution of time of an individual across all their projects. Secondly, the research has a shortcoming of sample size. This leads not only to a less reliable data-source, but also to a less insightful demographic. This might be the reason why the curvilinear relation between MTM and performance could not be confirmed, because there was not enough of a spread and overall density in the data across the individuals regarding amount of teams they are part of. According to Bertoloti (2015) the average MTM should be between 5,25 and 8,92, which is rather significantly higher than the 3,99 of this research. A higher respondent's count could be achieved to take more time to gather respondents, but also have a wider respondent's scope. In this research most respondents came from acquaintances, where as a wider scope could be beneficial. Lastly it is not ideal that the respondents reported on their performance and personality traits themselves. This means that the data is prone to being biased and not truthful, whereas it would be better if managers or coworkers filled in these qualities or data points. Furthermore it could be a limitation that the brought big five character traits were used and not specific character traits which could be more appropriate for this context. It can be interesting to test the relation with more specific, narrow traits like Lounsbury et al (2005) researched in the context of the relation between personality traits and cognitive ability.

5.3 Practical implication/ future research

From this research some practical lessons and therefore implications can be drawn. Firstly, although the data show some reassuring signs of correlations (from the Pearson's correlations table), it is not convincing enough to draw conclusions from the results. For future researchers this leads to some implications how they can learn from the findings of this research and therefore how they could alter the design of their research. It is advisable that the future researchers look more into specific character traits which are part of specific overarching traits. For instance, instead of taking the overarching trait openness to experience one might look more into openness to external experience, because it is more applicable to the context of MTM. This is also applicable to a certain extend for organizations, although the

data does not give significant results it seems that there is a case to be made to take personality of individuals into account to optimize their performance within a MTM context. Even though the general big five character traits did not give conclusive answers, they could take into account these more specific character traits and strengths and put them to use in such a way they are used optimally.

6. Conclusion

The goal of this study was to contribute to the limited literature on the topic regarding the context of MTM and individual performance of employees and how this could be affected by personality. This was researched by answering the question:

“What is the relationship between individual performance and multi team membership and to what extent is it moderated by the big five personality traits?”

This research aimed to answer this question by measuring performance in two manners; standard individual job performance and individual innovative performance. This research produced results which indicated that there is a reason to think there is a relation between MTM and individual standard performance, however because the results were not consistent and not strong enough the hypothesis had to be rejected. In order to have a better understanding of the relation it has been suggested to gather more respondents, more diverse respondents with more widely spread memberships and also to investigate other aspects of MTM, such as the time distribution of the individuals between teams. The relation between individual innovative performance and MTM has shown to have less of a basis for the assumption of a relation, however this relation might also suffer from the same lack of data, therefore it is advised to further research this relation. The hypotheses for the moderation effect of personality traits suffered from the same inconsistency and lack of strength to make a strong case for this model, even though some significant results were found for the moderation effect on the relation between MTM and standard individual job performance. Therefore these hypotheses are also rejected, with the addition that further research is needed with the advice that it might be helpful to look into more specific character traits then the five overarching character traits.

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Appendix 1

Geachte respondent,

Allereerst wil ik u danken dat u deel wilt nemen aan dit onderzoek middels het invullen van deze vragenlijst. Dit onderzoek doe ik voor mijn master Business administration aan de Universiteit Twente in Enschede. In dit onderzoek staat "multiple team membership" centraal. Multiple team membership betekent dat een individu onderdeel is van meerdere teams of commissies op een bepaald moment. Zo kunt u bijvoorbeeld meerdere opdrachten uitvoeren voor verschillende projectteams binnen een of meerdere organisaties. Dit onderzoek richt zich op de relatie tussen multiple team membership, iemands individuele prestaties en de persoonlijkheidskenmerken van dit individu. Het doel van deze enquête is het verkrijgen van informatie om inzicht te krijgen in verscheidene zaken die betrekking

hebben tot multiple team membership. Het invullen van deze enquête duurt vijf tot 10 minuten en zal volledig anoniem blijven.

Middels uw handtekening geeft u toestemming uw antwoorden te gebruiken voor het onderzoek.

Q1 Wat is uw geslacht

- Man
- Vrouw
- Anders

Q2 Wat is uw leeftijd?

.....Jaar

Q3 Wat is uw opleidingsniveau?

- VMBO
- HAVO
- VWO
- MBO
- HBO
- WO(bachelor/master)

Q4 In welke branche bent u werkzaam?

- (Bedrijf) Services
- Kinderopvang
- Commerciële Services
- Bouw
- Educatie
- Overheid
- Grafische diensten
- Gezondheid
- Horeca
- Woningbouw
- Juridische dienstverlening
- Logistiek
- Verkoop
- Sociale werkzaamheden

Voor de volgende vraag is het belangrijk om het begrip ‘team’ te definiëren. In dit onderzoek wordt een team gezien als een entiteit van twee of meer onderling afhankelijke individuen die samenwerken naar een gezamenlijk doel. Dit team kan zowel bestaan uit mensen die werken voor hetzelfde bedrijf, of uit mensen die voor verschillende bedrijven werken.

Q5 In hoeveel teams bent u op dit moment tegelijkertijd werkzaam?

..... Teams

Q6 Terwijl ik opereer in het zojuist genoemde aantal teams, beoordeel ik mijzelf op de volgende aspecten gemiddeld op de volgende manier:

	Helemaal mee oneens	Mee oneens	Redelijk mee oneens	Neutraal	Redelijk mee eens	Eens	Helemaal mee eens
Ik volbreng altijd de voorgeschreven taken die in mijn werkomschrijving staan	1	2	3	4	5	6	7
Ik neem alle verantwoordelijkheid die vereist is voor mijn taken in de teams waar ik onderdeel van ben	1	2	3	4	5	6	7
Ik faal vaak in het uitvoeren van essentiële taken	1	2	3	4	5	6	7
Ik verwaarloos nooit aspecten van de baan die ik verplicht ben uit te voeren	1	2	3	4	5	6	7
Ik voldoe aan alle formele prestatievereisten van de teams waarin ik onderdeel ben	1	2	3	4	5	6	7

Q7 In hoeverre brengt u de volgende gedragingen gemiddeld gezien in praktijk bij de teams waar u onderdeel van bent?

	Helemaal nooit 1	2	3	4	5	6	Altijd 7
Het creëren van nieuwe ideeën voor verbeteringen	1	2	3	4	5	6	7
Het uitzoeken van nieuwe werk methodes, technieken of gereedschappen	1	2	3	4	5	6	7
Het generen van originele oplossingen voor problemen	1	2	3	4	5	6	7
Het mobiliseren voor steun van innovatieve ideeën	1	2	3	4	5	6	7
Het verkrijgen van goedkeuring van innovatieve ideeën	1	2	3	4	5	6	7
Het enthousiast maken van	1	2	3	4	5	6	7

belangrijke figuren in een organisatie voor een innovatief idee							
Het transformeren van innovatieve ideeën naar bruikbare toepassingen	1	2	3	4	5	6	7
Het introduceren van innovatieve ideeën in de werkomgeving op een systematische manier	1	2	3	4	5	6	7
Het evalueren van de bruikbaarheid van innovatieve ideeën	1	2	3	4	5	6	7

Q8 De volgende vragen hebben betrekking op persoonlijke eigenschappen. Lees de stellingen zorgvuldig, en geef aan in welke mate u het eens of oneens bent met de volgende stellingen

	Helemaal mee oneens	Mee oneens	Redelijk mee oneens	Neutraal	Redelijk eens	Mee eens	Helemaal mee eens
Ik ben spraakzaam	1	2	3	4	5	6	7
Ik ben gereserveerd	1	2	3	4	5	6	7
Ik ben energiek	1	2	3	4	5	6	7
Ik genereer veel enthousiasme	1	2	3	4	5	6	7
Ik heb de neiging stil te zijn	1	2	3	4	5	6	7
Ik heb een assertieve persoonlijkheid	1	2	3	4	5	6	7
Ik ben soms verlegen, geremd	1	2	3	4	5	6	7
Ik ben sociaal	1	2	3	4	5	6	7
Ik heb neerslachtige neigingen	1	2	3	4	5	6	7
Ik ben kalm, ik kan goed tegen stress	1	2	3	4	5	6	7
Ik ben gespannen	1	2	3	4	5	6	7
Ik heb de neiging veel zorgen te maken	1	2	3	4	5	6	7
Ik ben emotioneel stabiel, niet makkelijk van	1	2	3	4	5	6	7

streek te krijgen							
Ik kan humeurig zijn	1	2	3	4	5	6	7
Ik blijf kalm in stressvolle situaties	1	2	3	4	5	6	7
Ik raak makkelijk nerveus	1	2	3	4	5	6	7
Ik ben origineel, ik ben in staat om nieuwe ideeën te genereren	1	2	3	4	5	6	7
Ik ben nieuwsgierig naar verschillende dingen	1	2	3	4	5	6	7
Ik ben een diepe denker	1	2	3	4	5	6	7
Ik heb een sterke verbeeldingskracht	1	2	3	4	5	6	7
Ik ben vindingrijk	1	2	3	4	5	6	7
Ik waardeer artistieke ervaringen	1	2	3	4	5	6	7
Ik heb een voorkeur voor routine	1	2	3	4	5	6	7
Ik hou van reflecteren, het filosoferen over ideeën	1	2	3	4	5	6	7
Ik heb weinig kunstzinnige interesses	1	2	3	4	5	6	7
Ik ben beoefend in kunst, muziek of literatuur	1	2	3	4	5	6	7
Ik doe mijn werk grondig	1	2	3	4	5	6	7
Ik kan iets onzorgvuldig zijn	1	2	3	4	5	6	7
Ik ben een betrouwbare werker	1	2	3	4	5	6	7
Ik heb de neiging ongeorganiseerd te zijn	1	2	3	4	5	6	7
Ik heb de neiging lui te zijn	1	2	3	4	5	6	7
Ik ga door totdat de opdracht	1	2	3	4	5	6	7

volbracht is							
Ik doe dingen efficiënt	1	2	3	4	5	6	7
Ik maak plannen en voer die uit	1	2	3	4	5	6	7
Ik ben makkelijk afgeleid	1	2	3	4	5	6	7
Ik heb de neiging fouten in anderen te vinden	1	2	3	4	5	6	7
Ik ben behulpzaam en onzelfzuchtig	1	2	3	4	5	6	7
Ik begin ruzies met anderen	1	2	3	4	5	6	7
Ik ben vergevingsgezind	1	2	3	4	5	6	7
Ik ben over het algemeen vertrouwend ingesteld	1	2	3	4	5	6	7
Ik kan gereserveerd zijn	1	2	3	4	5	6	7
Ik ben attent en vriendelijk	1	2	3	4	5	6	7
Ik kan onbeschoft zijn	1	2	3	4	5	6	7
Ik hou ervan samen te werken	1	2	3	4	5	6	7

Dit is het einde van de enquête, hartelijk dank voor het invullen en het participeren in het onderzoek!

Appendix 2 Reliability

Standard individual job performance

Reliability Statistics

Cronbach's Alpha	N of Items
,574	5

Item total statistics-Standard individual job performance

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Terwijl ik opereer in het zojuist genoemde aantal teams, beoordeel ik mijzelf op de volgende aspecten gemiddeld op de volgende manier -	23,2000	8,423	,357	,504
Ik volbreng altijd de voorgeschreven taken die in mijn werkschrijving staan				
Ik neem alle verantwoordelijkheid die vereist is voor mijn taken in de teams waar ik onderdeel van ben	22,4286	8,712	,528	,429
Ik verwaarloos nooit aspecten van de baan die ik verplicht ben uit te voeren	23,5429	7,846	,273	,582
Ik voldoe aan alle formele prestatievereisten van de teams waarin ik onderdeel ben	22,8143	9,632	,362	,511
Ik faal vaak in het uitvoeren van essentiële taken-R	22,5286	10,050	,234	,567

Individual innovative performance

Reliability Statistics

Cronbach's Alpha	N of Items
,856	9

Item total statistics-Individual innovative performance

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
In hoeverre brengt u de volgende gedragingen gemiddeld gezien in praktijk bij de teams waar u onderdeel van bent? - Het creëren van nieuwe ideeën voor verbeteringen	38,93	45,401	,680	,831
Het uitzoeken van nieuwe werk methodes, technieken of gereedschappen	39,26	46,687	,550	,843
Het genereren van originele oplossingen voor problemen	38,86	48,704	,541	,844
Het mobiliseren voor steun van innovatieve ideeën	39,16	44,105	,684	,829
Het verkrijgen van goedkeuring van innovatieve ideeën	39,37	46,759	,641	,835
Het enthousiast maken van belangrijke figuren in een organisatie voor een innovatief idee	39,29	45,830	,572	,841
Het transformeren van innovatieve ideeën naar bruikbare toepassingen	39,13	45,650	,644	,834
Het introduceren van innovatieve ideeën in de werkomgeving op een systematische manier	39,64	46,958	,511	,847
- Het evalueren van de bruikbaarheid van innovatieve ideeën	39,86	47,545	,428	,857

Extraversion

Reliability Statistics

Cronbach's Alpha	N of Items
,872	8

Item-Total Statistics Extraversion

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Ik ben spraakzaam	34,9706	54,059	,711	,849
Ik ben energiek	35,1471	55,351	,645	,856
Ik genereer veel enthousiasme	35,3088	55,620	,602	,859
Ik heb een assertieve persoonlijkheid	35,5441	55,714	,468	,874
Ik ben sociaal	35,0441	59,207	,490	,870
Ik ben gereserveerd-R	36,2059	50,554	,672	,852
Ik heb de neiging stil te zijn-R	35,7059	47,375	,807	,834
Ik ben soms verlegen, geremd-R	35,6765	50,610	,673	,852

Neuroticism

Reliability Statistics

Cronbach's Alpha	N of Items
,809	8

Item-Total Statistics- Neuroticism

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
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De volgende vragen hebben betrekking op persoonlijke eigenschappen. Lees de stellingen zorgvuldig, en geef aan in welke mate u het eens of oneens bent met de volgende stellingen - Ik heb neerslachtige neigingen	21,7500	44,280	,430	,802
Ik ben gespannen	21,3235	41,625	,673	,765
Ik kan humeurig zijn	21,1324	50,087	,179	,835
Ik raak makkelijk nerveus	21,7647	41,257	,685	,763
Ik ben emotioneel stabiel, niet makkelijk van streek te krijgen-R	21,7941	45,867	,452	,797
Ik ben kalm, ik kan goed tegen stress-R	21,6912	42,396	,676	,766
Ik blijf kalm in stressvolle situaties-R	21,8971	45,736	,509	,790
Ik heb de neiging veel zorgen te maken	21,0735	39,980	,638	,768

Openness

Reliability Statistics

Cronbach's Alpha	N of Items
,766	10

Item-Total Statistics- Openness

Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted

De volgende vragen hebben betrekking op persoonlijke eigenschappen. Lees de stellingen zorgvuldig, en geef aan in welke mate u het eens of oneens bent met de volgende stellingen - Ik ben origineel, ik ben in staat om nieuwe ideeën te genereren	43,9559	56,640	,474	,745
Ik ben nieuwsgierig naar verschillende dingen	43,5441	57,207	,470	,747
Ik ben een diepe denker	44,3382	58,018	,228	,774
Ik heb een sterke verbeeldingskracht	44,0441	55,565	,429	,748
Ik ben vindingrijk	43,9706	55,820	,571	,737
Ik waardeer artistieke ervaringen	44,5000	51,806	,575	,728
Ik hou van reflecteren, het filosoferen over ideeën	44,4412	52,519	,479	,740
Ik ben beoefend in kunst, muziek of literatuur	46,1471	51,620	,357	,765
Ik heb een voorkeur voor routine-R	45,2941	54,629	,294	,770
Ik heb weinig kunstzinnige interesses-R	45,2647	46,586	,655	,710

Conscientiousness

Reliability Statistics

Cronbach's Alpha	N of Items
,751	9

Item-Total Statistics conscientiousness

Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
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De volgende vragen hebben betrekking op persoonlijke eigenschappen. Lees de stellingen zorgvuldig, en geef aan in welke mate u het eens of oneens bent met de volgende stellingen - Ik doe mijn werk grondig	40,9118	41,574	,428	,731
Ik ben een betrouwbare werker	40,6029	42,661	,408	,736
Ik ga door totdat de opdracht volbracht is	40,8676	43,490	,250	,751
Ik doe dingen efficiënt	41,2500	42,459	,274	,750
Ik maak plannen en voer die uit	41,3824	37,881	,511	,715
Ik kan iets onzorgvuldig zijn	41,7941	35,360	,523	,711
Ik heb de neiging ongeorganiseerd te zijn	41,6029	33,646	,610	,693
Ik ben makkelijk afgeleid	42,8529	36,217	,438	,729
Ik heb de neiging lui te zijn	41,6765	36,491	,451	,725

Agreeableness

Reliability Statistics

Cronbach's Alpha	N of Items
,673	5

Item-Total Statistics Agreeableness

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
De volgende vragen hebben betrekking op persoonlijke eigenschappen. Lees de stellingen zorgvuldig, en geef aan in welke mate u het eens of oneens bent met de volgende stellingen - Ik ben behulpzaam en onzelfzuchtig	21,97	10,954	,237	,695
Ik ben vergevingsgezind	22,19	8,276	,486	,594
Ik ben over het algemeen vertrouwend ingesteld	21,88	8,165	,545	,563
Ik ben attent en vriendelijk	21,78	10,115	,505	,606
Ik hou ervan samen te werken	22,00	8,925	,407	,634