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How to co-create based on personality

*The influence of personality traits on consumers'
motives of the willingness to co-create*

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Co-creation based on personality

How do the personality traits influence consumers' motives of willingness to participate in the co-creation process of a company?

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I declare that this master thesis is an original work, which is exclusively written by me. When I obtained information and ideas of other sources, I explicitly mentioned this in the text.

Preface

This research is part of my Master Business Administration, with a specialization in Marketing, at the Radboud University Nijmegen. After months of doing research; by studying literature, collecting and analyzing data, and interpreting and concluding results, I present you my master thesis with the title 'How to co-create based on personality'. The process of writing this thesis has given me the opportunity to develop my quantitative research skills, but also my knowledge as a marketer.

Therefore, I would especially like to thank my supervisor, Prof. dr. Bas Hillebrand for the pleasant guidance of my thesis. He was very supportive and gave me useful feedback, which enabled me to improve my thesis. Besides, I would like to thank Prof. dr. José Bloemer, who has guided me in the initial phase of my thesis. Additionally, I would like to thank my second examiner, Dr. Paul Driessen, for the time and effort he has put into reading my thesis. Furthermore, I would like to thank all the respondents who filled in the questionnaire. Last, I would like to thank my family and friends for their support and motivation.

I hope you will enjoy reading my master thesis.

Esmee Zeekaf

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Abstract

The marketing perspective has changed from a goods-dominant (G-D) logic to a more service-dominant (S-D) logic. This change results in a service focus. In order to create value, not only participation of the company is required, but also the participation of the consumer. Therefore the concept co-creation has become increasingly important.

This research examines how personality traits influence consumers' motives of willingness to participate in the co-creation process of a company. Quantitative research has been conducted to investigate this relationship; more precisely, the data of a questionnaire, filled in by 265 respondents, has been used. By means of several hierarchical multiple regression analyses the hypotheses have been tested.

It was expected that the Big Five personality traits: extraversion, agreeableness, consciousness, emotional stability and culture had a different effect on consumers' motives of the willingness to co-create. However, the results of this research show, in contrary to the expectations; personality traits do not influence consumers' motives of willingness to participate in the co-creation process with a company. Therefore, focusing on personality traits will not be effective to motivate consumers to co-create.

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1. Introduction

Imagine two consumers, Karin and Anna, they both participate in the developing process of a new slogan for a new series of drinks for the brand Starbucks. They are both willing to participate actively in the interaction by delivering new ideas and giving feedback on other consumers' ideas. However, consumers have different motives to participate in this process of value creation, together with the brand (Neghina, Bloemer, van Birgelen, & Caniëls, 2017). This process of value creation is called co-creation. Karin is a very extravert person and is willing to create value with Starbucks because she wants to be part of an influential group, which she will be when participating in this interaction. On the other hand, Anna is very agreeable and is willing to engage in this value creation process with Starbucks, because she knows that she will be able to express her own interests and preferences when she engages in this interaction. The contradiction within the motives of the consumers poses a challenge for the marketing department of Starbucks. Starbucks wants to respond adequately to both consumers. However, the marketing department does not have enough insight in the individual motives consumers have to actively participate in this service process. For Starbucks to be able to respond in line with consumers' expectations, the marketing department would like to know how and if individual personality traits affect the motives consumers have to co-create.

1.1 Co-creation

The perspective of marketing has changed within the last years from a perspective that is focused on tangible resources towards a broader perspective that is more focused on intangible resources (Vargo & Lusch, 2004). This changed perspective is important for companies because they will be limited when they only view marketing from a tangible focused perspective. The first mentioned perspective values the delivery of manufacturing things to consumers, while the latter, broader perspective, highlights the importance of the exchanges of resources, skills and relationships. As a result of this shift, marketing has changed from a goods-dominant (G-D) logic to a more service-dominant (S-D) logic (Vargo & Lusch, 2004). Vargo and Lusch (2006) define service as “the process of doing something for someone” (p. 282), which indicates that service is an exchange. The focus on service has resulted in an increase of participation between consumers and employees and highlighted the importance of seeing the consumer as a co-producer. This causes companies to be better able to meet the expectations of consumers (Vargo & Lusch, 2004).

The consumer as co-producer can be observed in two concepts: co-creation and co-production (Grönroos & Voima, 2012). Co-production focuses on the unit of output and collaboration with the core product itself (Vargo & Lusch, 2006), whereas co-creation lays focus on the process of interaction between the consumer and company (Grönroos & Voima, 2012). Since this research focuses on the total process of interaction between the consumer and company, the focus will be on co-creation only. Co-creation indicates that the value is not only created by the company (and delivered to the consumer), but is also created by the consumer. This implies that consumers not only use the resources of the company, but also their own resources (Karpen, Bove, & Lukas, 2012).

1.2 Research problem

Previous research of value co-creation has focused on broad perspectives of the context, the meso- and macro-perspectives. In a meso-context, an indirect service-for-exchange process between two actors occurs. These two actors are directly served by an additional third factor, which results in a relationship between three actors (Chandler & Vargo, 2011). However, in a macro-context, an exchange exists among several actors. Actors exchange in a complex network, which includes synergies of several simultaneous direct and indirect service-for-service exchanges (Chandler & Vargo, 2011).

Karpen et al. (2012) have such a broad perspective of co-creation and state that organizational capabilities are necessary to co-create value with consumers (Karpen et al., 2012). Therefore, Karpen et al. (2012) have developed a conceptual framework, named the service-dominance (S-D) orientation showing six capabilities. These capabilities are individuated, relational, ethical, empowered, developmental and concerted interaction capability. These organizational capabilities facilitate the co-creation between a company and the 'value network partners' (including consumers). These six organizational capabilities are not all in line with each other; thereby they are expected to have different organizational antecedents and might even function in opposite direction. This indicates that companies are probably not able to meet all these organizational capabilities at the same time when creating value with consumers (Karpen et al., 2012).

These organizational capabilities are adapted to the micro level of service interactions between employees and consumers (Neghina, Caniëls, Bloemer, & van Birgelen, 2014). In a micro-context direct service-for-exchange occurs between two actors, which is focused on individual actors. This implies that two actors serve each other (the consumer and company),

which makes both actors active participants during the exchange (Chandler & Vargo, 2011). Based on the micro level, Neghina et al. (2017) translated these organizational capabilities into motives (individualizing, relating, empowering, ethical, developmental and concerted motives) of consumers to co-create with employees. It is not realistic for companies meeting all organizational capabilities at the same time, because these organizational capabilities presumably have different organizational antecedents. Thus, serving all these translated consumers motives will also not be realistic. As a result, the need to investigate the motives per consumer and context arises (Karpen et al., 2012).

Research has been conducted investigating whether these motives consumers have for the willingness to co-create differ per service context (Neghina, et al., 2017). Willingness to co-create refers to the degree that consumers want to integrate their resources with the company that is delivering the service (Neghina et al., 2017). Willingness to co-create is a good indicator for the intended co-creation of consumers. Neghina et al. (2017) concluded that in different service context consumers have different motives for the willingness to co-create. Namely, consumers have different motives to co-create in professional services, which are knowledge intensive and require a high level of professionalism, than in generic services, where the knowledge intensity and professionalism is low (Neghina et al., 2017). This insight indicates that managers of different service contexts should act differently and focus on different motives regarding their consumers. As a result, they will receive consumers' willingness to co-create and in turn their intended co-creation with the company.

The research of Neghina et al. (2017) provides useful insights for specific service companies on what motives should be focused on. However, the research lacks in investigating whether these motives not only differ per service context, but also per individual. Further investigating the motives of individuals to co-create might show the influence of consumers' personality on consumers' motives, the willingness to co-create and the intention to co-create.

Heidenreich and Handrich (2015) have investigated the effect of individual differences and innovation characteristics on the willingness to co-create. With individual differences they mean characteristics that describe the adopter of an innovation based on psychographics (self-efficacy, inherent novelty seeking, need for control, previous experience and technological innovativeness). They conclude that individual differences have an influence on the willingness to co-create in technology-based services. However, this research is limited, since it solely focuses on the specific technology-based services and psychographics. Therefore, this research does not focus on the Big Five personality traits.

Earlier research already suggested to focus on the Big Five Personality Traits (Big Five) when interested in personality traits (Goldberg; 1990; Norman 1963). The ‘Big Five’ defines personality traits with five generalizable factors, namely: extraversion, agreeableness, conscientiousness, emotional stability, and culture (Digman, 1990). Linking these personality traits to the motives of co-creation has not been covered in the literature yet, and therefore shows a gap.

It is interesting to investigate this gap since co-creation depends on the uniqueness of individuals and different psychological benefits and values individuals perceive (Etgar, 2008). These perceived benefits and values determine consumers’ motives, which in turn determine the willingness of consumers to engage in this co-creation process (Neghina et al., 2017). This perception of benefits and values also depends on the uniqueness of individuals (Costa & McCrae, 1992; Grönroos & Vioma, 2012). Personality traits are “dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions” (McCrae & Costa, 1990, p. 23). Since personality traits include individuals’ differences with regard to thoughts, feelings and emotions, it seems likely that personality traits do have an effect on the motives consumers have for the willingness to co-create. Also, research has shown that the success of co-creation in a service interaction depends on the individuals that participate in the service interaction (Prahalad & Ramswamy, 2004).

Consequently, because individuals are different and have different personality traits, it could be expected that some personality traits have a more positive effect on the willingness to co-create than other personality traits. This research will investigate the influence of personality traits on the motives of consumers to co-create. The Big Five will be used to express the personality traits of consumers, however the concept ‘personality traits’ will be used. Therefore, the research question is as follows: *“How do the personality traits influence consumers’ motives of willingness to participate in the co-creation process of a company?”*

1.3 Theoretical relevance

Consumers’ motives to co-create are not all in line with each other. Therefore, companies will not be able to meet all consumers’ motives to co-create at once. Neghina et al. (2017) have investigated what motives consumers have to participate in co-creation within certain service contexts. However, their research fails to explain how to prioritize motives based on individual differences between consumers and which motives might be best used in other than professional and generic contexts. Investigating the effect of personality traits on individual

motives will offer more clarity in what motives are most important for which particular consumer. This research will provide insights for the co-creation process, by stating which motives of willingness to co-create are most important for consumers with certain personality traits.

1.4 Practical relevance

Co-creation offers both companies and consumers the possibility to connect. The experience of consumers will expand from solely functional and economic benefits to emotional, social, ethical and environmental aspects (Grönroos & Voima, 2012). The increased focus on consumers has made insight in the individual motives of consumers very useful. By investigating personality traits and the effect on motives for the willingness to co-create, companies receive a clearer picture of which motives they should focus on per individual consumer. As a result, companies will be aware whether they have to approach consumers differently according to their personality. Consequently, this might ask for trainings of ‘how to act to different consumers’. Therefore, insights of this research provide a better understanding of the co-creation behavior of consumers and create opportunities to target audience more specific, based on personality. Personalizing the marketing for consumers provide companies with benefits, such as responding to the wishes of consumers, which has a positive influence on trust and loyalty of consumers (Zhang & Bloemer, 2008).

1.5 Structure of the report

The next chapter provides a literature overview of co-creation in services, individual motives to co-create and personality traits. Furthermore, the relationship between the concepts is explained and hypotheses are formed. Chapter three consists of the methodology. The fourth chapter presents the results of the study and is followed by the conclusion and discussion in which an answer to the research question is formulated. Lastly, limitations to the research are presented and implications for further research are given.

2. Literature review

This chapter elaborates on the concepts of this research. First, the three central variables are defined; co-creation, individual motives to co-create and personality traits. Thereafter, the

relationship between personality traits and individual motives to co-create is explained and hypotheses are formed. Lastly, the conceptual model is presented.

2.1 Co-creation in services

Marketing has changed from a perspective focused on products (goods-dominant (G-D) logic) to a perspective focused on service, in which relationships have increasingly become more important (service-dominant (S-D) logic) (Vargo & Lusch, 2004). Several definitions for services are suggested in literature. Vargo and Lusch (2004) define services as “the application of specialized competences (knowledge and skills) through deeds, processes and performances for the benefit of another entity or the entity itself” (p.2). With this definition, Vargo and Lusch (2004) suggest service to be an exchange. Vargo, Maglio and Akaka (2008) define service as: “an arrangement of resources (including people, technology, information, et cetera) connected to other systems by value propositions” (p. 149). This definition suggests service exists of several elements that are connected to each other and carry value. This research defines services as a process in which exchange of companies’ resources and other (stakeholder) resources create value. This means that resources used for a service can be derived from several stakeholders, such as consumers. The creation of value is better understandable due to the shift in marketing perspective. Namely, goods and services will not be two separate elements anymore, but will be integrated together. Therefore, value provision is expected to be replaced by value co-creation (Karpen et al., 2012).

First, co-creation will be explained. Grönroos and Voima (2012) define co-creation as “a process that includes actions by both the service provider and consumer (and possibly other actors)” (p. 135). This suggests that both the service provider and the consumer are perceived as co-creators of value. Furthermore, value is created because of the interaction between the company and the consumer. Concluding, the company, the consumer and the interaction between them are important aspects of co-creation. The involvement of the consumer is necessary to be able to meet their needs (Vargo & Lusch, 2004). Therefore, it is important to constantly involve consumers in the value creation process. Besides, marketing should be aware of the fact that a consumer is always a co-producer.

Co-creation results in value creation. Value creation is “a process that increases the customer’s well-being, such that the user becomes better off in some respect” (Grönroos & Voima, 2012, p. 134). Value creation therefore results in positive effects for the consumer. A distinction can be made between two concepts of value creation: value-in-exchange and

value-in-use. Value-in-exchange focuses on an exchange of utilities at a certain moment of time, while value-in-use focuses on the experience related to the consumption (Grönroos & Voima, 2012). This research sees value not just as a delivery to the consumer, but as a development that highlights consumers' ability to extract value out of the used products and resources (Grönroos & Voima, 2012). Therefore, the concept value-in-use will be used.

Value can only be created together with the consumer through use in the process of consumption (Vargo & Lusch, 2006). According to the S-D logic, value is created through efforts of different stakeholders, like companies and employees. Knowledge and skills form the key resources for a competitive advantage (Vargo et al., 2008). Despite that value is created together, only the consumer determines the value (Vargo & Lusch, 2006). Consumers appreciate the emotional, ethical and environmental dimensions of the value, which will be created over time (Grönroos & Voima, 2012).

Concluding, the perspective of resources has changed and value creation is not fixed; it involves intangible and dynamic processes of the abilities humans possess (Vargo & Lusch, 2004). This has resulted in the importance of the involvement of consumers.

2.2 Individual motives to co-create

Consumers' willingness to co-create is "the extent to which consumers are willing to integrate their own resources with those of the service firm" (Neghina et al., 2017, p. 158). Neghina et al. (2017) suggest that consumers co-create, because they strive to fulfill their own personal wants and needs. This is in line with the Expectancy Value Theory, which states that the way people act depends on their individual beliefs on how well they will perform on the activity and how they value the activity (Wigfield & Eccles, 2000). Therefore, consumers' perceptions of values and beliefs, and personal wants and needs determine whether consumers are motivated to act in a certain way or not (Neghina et al., 2017; Wigfield & Eccles, 2000). This means, to be willing to co-create value with companies, consumers need to have certain motives to participate in the co-creation process. Motives are perceived expectations people have of a process. When the process ends in the desired outcome, the motive is fulfilled (Neghina et al., 2017). This research defines motives as the expectations of a consumer of the co-creation process (and outcome) together with a company. This concept contains the desire of a consumer of what the co-creation process includes. The expected benefits of a co-creation process determine whether consumers participate in such a process (Nambisan & Baron, 2009).

To fulfill their own wants and needs consumers expect assistance of their interaction partners, companies, during the co-creation process (Karpen et al., 2012). Communication and interaction between the network partners is very important according to the S-D logic (Vargo & Lusch, 2004). As a result, consumers require companies to be able to understand their value fulfillment. In other words, consumers expect companies to have certain organizational capabilities to understand what they want to achieve with their actions. Karpen et al. (2012) developed a conceptual framework, S-D orientation, to create more insight in the organizational capabilities consumers expect of a company to create value with them during service exchange. This framework provides six strategic organizational capabilities, namely individuated, relational, ethical, empowered, developmental and concerted interaction capability. Neghina et al. (2014) have adapted this framework to the micro-level of the service interaction between employees and consumers. Subsequently, Neghina et al. (2017) translated these interactions into the perspective of the consumer and formed consumers' motives to participate in the process of value co-creation. These motives are: individualizing, relating, empowering, ethical, developmental and concerted motives.

First, individualizing motives are consumers' expectations of mutual understanding of resources, roles and desired outcome with companies, during the co-creation process. Relating motives are consumers' expectations of emotional and social connection with companies during the co-creation process. The third motive, the empowering motives, is the expectation consumers have to negotiate power and to influence the service process outcome during the co-creation process with companies. Fourth, ethical motives are the expectations consumers have of the co-creation process, as an interaction with the company, which is fair, honest and moral. Fifthly, developmental motives are consumers' expectations of developing operand and operant resources during the co-creation process with the company. And lastly, concerted motives are the expectations consumers have of engaging in a pleasant, relevant and timely interaction, when co-creating value with a company (Neghina et al., 2017). These concerted motives can for instance include adapting behavior of each other, agreements and coordination (Neghina et al., 2014). These motives altogether form the motives for consumers to participate in the process of value co-creation and should therefore be focused on by companies.

2.3 Personality traits

The described motives of consumers determine the willingness of consumers to co-create with a company. The motives might be influenced by personal characteristics, such as personality traits. Mount, Murray, Scullen and Round (2005) mention that personality traits refer to the characteristics that are stable over time, provide the reasons for the person's behavior, and are psychological in nature. For a complete view on personality traits, Costa and McCrae (1992) state that it is important to include all individual differences; this includes emotional, interpersonal, experiential, attitudinal and motivational aspects. McDougall (1932) has suggested five separate factors that represent the personality. As a response, Norman (1963) has developed a theoretical structure for psychological areas with the taxonomy of personality attributes, which means that the different personality attributes are organized in groups (factors) (Norman, 1963). Norman's (1963) taxonomy defines five orthogonal factors of personality: Extraversion, Agreeableness, Consciousness, Emotional Stability (versus Neuroticism) and Culture (or Openness). The factors function as a foundation for personality and are called the 'Big Five'. Other researches have validated the five overruling constructs as suggested by Norman (1963) and confirm that these factors of personality could be identified as the basis (Borgatta, 1964; Fiske, 1949; Smith, 1967; Tupes & Christal, 1961; Wiggins et al., 1969, as cited in Digman, 1990). Furthermore, the generalizability of the theoretical structure of Norman (1963) has been confirmed by several researchers (Costa and McCrae, 1992; Goldberg, 1990).

Although multiple researches validate the Big Five to measure personality traits, an agreement of the precise meaning of the factors themselves has not been achieved yet. The five factors, as suggested by Norman (1963), will be explained with reference to the existing literature. There are several interpretations of the first factor, *extraversion*. According to John and Srivastava (1999), extraversion is an energetic approach to the social and material world. Conforming Liu and Campell (2017) extraversion is "associated with activity, social gregariousness, optimism, driven and talkativeness" (p. 230). With this, Liu and Campbell (2017) state that individuals possessing this trait are looking for social attention. In line, Harari, Thompson and Viswesvaran (2017) mention that individuals scoring high on extraversion appreciate close interpersonal relationships, friendliness and affection. This research focuses on the definition of Borghans, Duckworth, Heckman and Ter Weel (2008), who define extraversion as: "the degree to which a person needs attention and social interaction" (p. 983).

The second factor, *Agreeableness*, “reflects one’s interpersonal orientation towards others including sympathy, courteousness, interpersonal flexibility kindness, trust and forgiveness” (Liu & Campbell, 2017, p. 230). Indicating individuals’ tendency to have positive and harmonious interpersonal relationships (McCarty, Wood, & Holmes, 2017). This factor has to do with a prosocial and communal orientation (John & Srivastava, 1999), and includes categories such as trust, amiability and generosity.

The third factor, *Conscientiousness* is “the degree to which a person is willing to comply with conventional rules, norms and standards” (Borghans et al., 2008, p. 983). A person who scores high on conscientiousness wants to follow the rules and values long-term goals (Liu & Campbell, 2017). This factor includes categories such as order, self-discipline and thinking before acting (Goldberg, 1990).

Fourthly, *Emotional Stability* involves being confident, steady and secure (Judge & Bono, 2001), and is the opposite of neuroticism. Neuroticism is “the degree to which a person experiences the world as threatening and beyond his/her control” (Borghans et al., 2008, p. 983). This includes the tendency of a person to become distressed and upset (Carver & Connor-Smith, 2010). Furthermore, neuroticism includes more frequent and more intense negative affect (Le Vigouroux, Scola, Raes, Mikolajczak, & Roskam, 2017). In contrast, emotional stability includes categories like durability, poise and self-reliance and is therefore the opposite of neuroticism. This research defines emotional stability as the degree to which people experience the world as within their control.

Lastly, *Culture*, also called openness to experience, is “the degree to which a person needs intellectual stimulation, change, and variety” (Borghans et al., 2008, p.983). People that score high on this factor are curious about inner and outer worlds and are constantly interested in discovering new things and experience emotions more strongly (Liu & Campbell, 2017; Matzler, Bidemon, & Grabner-Kräuter, 2006). This factor includes categories like wisdom, originality and objectivity (Goldberg, 1990).

2.4 The relationship between personality traits and individual motives to co-create

Consumers strive to fulfill their own personal wants and needs, and act based on their beliefs and values of an activity. These aspects determine whether consumers expect benefits and therefore determine consumers’ motives (expectations of the co-creation process and outcome) (Neghina et al., 2017; Wigfield & Eccles, 2000). These motives in turn determine consumers’ willingness to co-create. The co-creation process depends on the uniqueness of

individuals (Etgar, 2008), meaning that each person has a different and unique contribution to the process of value co-creation. Next to this unique contribution, can consumers' choice to engage in the co-creation process depend on the psychological benefits they perceive (Etgar, 2008). This is in line with the Expectancy Value Theory, which states that motives are influenced by how individuals value the activity and their expectations (Wigfield & Eccles, 2000).

The perception of value and benefits, which determines consumers' motives, differs among individuals, what one person perceives valuable might be perceived differently for another person (Grönroos & Voima, 2012). This perception of values and benefits, which depends on the uniqueness of individuals, might also be different due to individual personality traits. Costa and McCrae (1992) indicate that personality traits show individual differences regarding to thoughts, feelings and actions. Since consumers are all individual persons with therefore a variety in personality traits and perceptions, resulting in different perceptions of value fulfillment, it can be expected that the difference in personality traits may lead to different motives to co-create in the value creation process. Since this research has a rather explorative character, not all personality traits will be related with all motives. Instead, the following paragraph will undertake the most eligible positive relationships between personality traits and individual motives and does not form hypotheses for all possible relationships.

First, a positive relationship that is expected to be eligible is the relationship between the personality trait 'extraversion' and both the relating as the developmental motives. Individuals that score high on the trait extraversion are looking for social attention and are interested in close interpersonal relationships, friendliness and affection (Harari et al., 2017; Liu & Campbell, 2017; Srivastava, 1999) In general, the need for social attention can be found within co-creation. Namely, Etgar (2008) mentions that coordinative skills, like the ability to handle with cultural differences, to motivate partners and to prevent conflicts, are very important for participation. Participation is in turn very important for co-production, and according to Neghina et al. (2017) also for co-creation. Thus, learning together, which is defined as dialogical capability, is an important element of participation because this requires accommodation (Battantyne & Varey, 2006; Etgar, 2008). When looking for social attention, learning together is likely to be valued as something desirable.

When indicating the specific motives of willingness to co-create, two motives

(relating and developmental) seem most likely to be perceived as important for individuals that are extravert. Individuals who are extravert are intrinsically looking for interpersonal relationships and appreciate to have social connections. Therefore, this trait is most likely to match with the relating motives, concerning emotional and social connection with service provider (Neghina et al., 2017). This means that consumers scoring high on the personality trait extraversion are more likely to have relating motives than consumers scoring low on extraversion. Therefore, the following hypothesis is proposed:

- Hypothesis 1: There is a positive relationship between extraversion and the relating motives.

Furthermore, extravert people are characterized by being ambitious and interested in action, novelty and challenges (Matzler et al., 2006; Roccas, Sagiv, Schwartz, & Knafo, 2002). This suggests that those individuals like to collaborate, develop themselves, and create new ideas. This corresponds with the developmental motives of willingness to co-create, which focus on the development of the resources of consumers. This includes developing new knowledge and skills and is therefore linked to novelty and challenges (Neghina et al., 2017). As a result, it is likely that consumers scoring high on the personality trait extraversion are more likely to have developmental motives than consumers scoring low on extraversion. Hence, the second hypothesis is as follows:

- Hypothesis 2: There is a positive relationship between extraversion and the developmental motives.

Then, a positive relationship is expected between the personality trait ‘agreeableness’ and individualizing, relating, concerted, and ethical motives. When individuals score high on the trait agreeableness, they tend to have positive and harmonious interpersonal relationships. Next to this, they tend to be social, cooperative and have a communal orientation (John & Srivastava, 1999; McCarty, Wood, & Holmes, 2017; Roccas et al., 2002). These aspects are likely to be met when co-creation takes place, since co-creation entails an interaction between consumers and a company, in which both consumer as company cooperate together to create value (Grönroos & Voima, 2012). When having a closer look at the motives of willingness to co-create, four motives (individualizing, relating, concerted and ethical) seem most likely to be perceived as most important for individuals that are agreeable. These eligible relationships are further explained.

Considering individuals scoring high on agreeableness tend to find consensus between them and others (McCarty, et al., 2017), it is reasonable to expect that consumers scoring high on this trait value mutual understanding of the relationship between them and the employee. Mutual understanding is an expectation of consumers who value individualizing motives (Neghina et al., 2017). As a result, it is likely that consumers scoring high on the personality trait agreeableness are more likely to have individualizing motives than consumers scoring low on agreeableness. Thus, the third hypothesis is as follows:

- Hypothesis 3: There is a positive relationship between agreeableness and the individualizing motives.

Additionally, a positive correlation between agreeableness and the relating motives can be expected. The relating motives of willingness to co-create concern an emotional and social connection between the consumer and the employee (Neghina et al., 2014). Furthermore, individuals scoring high on the trait agreeableness tend to be trusty and kind to others (Liu & Campbell, 2017). According to Neghina et al. (2014), this social connection, meant by relating motives, can include agreeableness. As a result, it is expected that consumers scoring high on the trait agreeableness are more likely to value an emotional and social connection with companies they co-create with, than consumers scoring low on agreeableness. Therefore, the following hypothesis is formulated:

- Hypothesis 4: There is a positive relationship between agreeableness and the relating motives.

Furthermore, one of the aspects of agreeableness is amiability, which means that individuals appreciate pleasantness and friendliness (Goldberg, 1990), indicating that those individuals are willing to help others. These aspects are conforming to the characteristics of the concerted motives of willingness to co-create, which include engaging in a pleasant interaction (John & Srivastava, 1999; Neghina et al., 2017). Resulting in the likelihood that consumers scoring high on the personality trait agreeableness are more likely to have concerted motives, compared to consumers scoring low on agreeableness. Hence, the following hypothesis is formed:

- Hypothesis 5: There is a positive relationship between agreeableness and the concerted motives.

Next, individuals scoring high on agreeableness tend to be honest and act moral (Goldberg, 1990). These two aspects can also be found in the ethical motives of willingness to co-create; indicating fair, honest and moral guidelines for an interaction between consumer and employee (Neghina et al., 2017). As a result, it is likely to expect that consumers who score high on the personality trait agreeableness are more likely to have concerted motives than individuals scoring low on agreeableness. Hence, the sixth hypothesis is as follows:

- Hypothesis 6: There is a positive relationship between agreeableness and the ethical motives.

Then, the eligible relationship between the personality trait ‘consciousness’ and ethical motives is proposed. Individuals scoring high on the trait consciousness think before they act, have self-discipline, are responsible and careful, and tend to follow the rules (Goldberg, 1990; Liu & Campbell, 2017; Roccas et al., 2002). They use socially prescribed impulse control, meaning that individuals make sure they control the impulses they get (John & Srivastava, 1999). Therefore, the individuals are conscious of the way they act and behave. Considering the thoughtfulness, it seems reasonable that the individuals value fairness and honesty. The ethical motives of willingness to co-create indicate fair, honest and moral guidelines (Neghina et al., 2017). As a result, it seems likely to expect that consumers scoring high on the personality trait consciousness will consider ethical motives of willingness to co-create as more important than consumers scoring low on consciousness. This leads to the following hypothesis:

- Hypothesis 7: There is a positive relationship between consciousness and the ethical motives.

Moreover, the expected positive relationship between the personality trait ‘emotional stability’ and empowering motives is described. Individuals that score high on the trait emotional stability tend to have a certain calmness and are self-confident and secure (Goldberg, 1990; Judge & Bono, 2001). Furthermore, the individuals are less sensitive to the emotions of others, often resulting in confidence of own abilities, ideas and actions (Wihler, Meurs, Momm, John, & Blickle, 2017). It might be reasonable that the individuals have a positive attitude towards their ideas and thoughts, since they believe in their own ideas. As a result, the individuals would seemingly like to transfer these ideas to others and influence outcomes of certain processes. This means that emotional stability is likely to correlate

positively with the empowering motives of willingness to co-create. Empowering motives of willingness to co-create indicate the desire consumers have to negotiate power to be able to influence the service process or outcome (Neghina et al., 2017). As a result, it will be expected that consumers scoring high on the personality trait emotional stability will perceive empowering motives of more importance than consumers scoring low on emotional stability. Thus, the following hypothesis is proposed:

- Hypothesis 8: There is a positive relationship between emotional stability and the empowering motives.

Lastly, a relationship is expected between the personality trait ‘culture’ and developmental motives. Individuals that score high on the trait culture are open to experience, curious for new things and possibilities, and increasingly interested to develop themselves (Liu & Campbell, 2017). Developmental motives of willingness to co-create include the development of consumer’s (operand and operant) resources (Neghina et al., 2017), which is a new experience. Therefore, it is likely that consumers who score high on the personality trait culture will value the developmental motives of willingness to co-create of more importance than consumers scoring low on culture. Therefore, the ninth hypothesis is as follows:

- Hypothesis 9: There is a positive relationship between culture and the developmental motives.

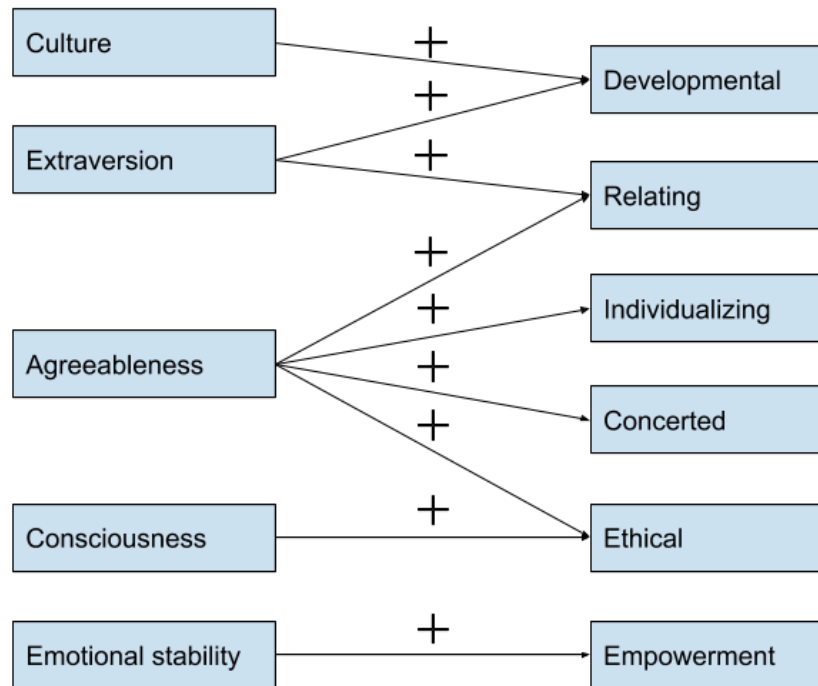


Figure 1: Conceptual model

3. Methodology

This chapter discusses the methodology of this research. First, the research design, which is quantitative, is explained. Second, the sample is described, which is followed by the data collection. Thereafter, the variables are operationalized and the data analysis is described. Then, construct reliability and validity are explained. Finally, this chapter concludes with the research ethics.

3.1 Research design

The goal of this research was to investigate the relationship between personality traits and consumer motives of willingness to co-create. To be able to generalize the results of this research towards a larger group it is interesting to focus on a broad group of respondents than rather a more specific group in depth (Vennix, 2011). Quantitative research is based on numbers instead of language, which makes it easier to compare a larger group of respondents and generalize results (Field, 2013). Besides, the Big Five personality traits have been widely measured with quantitative research scales (John & Srivastava, 1999). Therefore we chose to conduct quantitative research. Quantitative research was conducted through a questionnaire,

which is a quantitative measurement design which focuses on a large group of respondents from which data of the actual situation was collected and statistically processed (Vennix, 2011). Decades ago it was indicated that questionnaires could be a good measurement for these five personality traits (Digman, 1990). Furthermore, consumers' motives of willingness to co-create already have been investigated through a questionnaire of Neghina et al. (2017), which seemed suitable for this research as well.

3.2 Data collection and sample

3.2.1 Data collection

This research was interested in consumers who co-create in a service context together with a company. In order to test the hypotheses an online questionnaire was conducted. Respondents were reached through social media (WhatsApp, Facebook and LinkedIn) and via e-mail, which makes the questionnaire open for public on the Internet. These respondents were most accessible to participate in this research. Therefore, the used sample was a convenience sample (Vennix, 2011). However, a disadvantage of an online questionnaire, which is distributed through social media, is that only people who use social media will be able to fill in the questionnaire. This will affect the sample distribution. A lot of people in the Netherlands do have access to the Internet nowadays. However, younger people use social network sites more often than elderly people (Correa, Hinsley, & de Zuniga, 2010). Consequently, the results of this research will not be generalizable for the entire population of the Netherlands. Furthermore, an online questionnaire might have the limitation of self-selection bias, which means that some people are more likely to complete an online questionnaire than other people (Wright, 2017). This can also have negative consequences for the generalizability of the results. However, to be able to generalize results it is interesting to reach a lot of respondents in a short period of time, which is possible with an online questionnaire (Wright, 2017).

For the questionnaire it is important that respondents have the same understanding of the concept co-creation when answering the questions, since this improves the validity of the results. Therefore it is desirable to describe a realistic co-creation scenario that is easily understandable. Two aspects are important to create this: the co-creation partner, which is a company and the co-creation process itself. First, a well-known brand was used as co-creation partner of the respondents. Since Adidas is a big company and a well-known brand in the Netherlands, this specific brand was used. Respondents are better able to imagine the co-creation process with a famous brand because this creates a more realistic situation. As a

result respondents are better able to fill in the questionnaire. Besides, it seemed valuable to present Adidas as a brand instead of a company in the questionnaire. Since consumers value Adidas as a famous brand instead of a famous company, this might avoid confusion.

Furthermore, it is important to create a realistic co-creation scenario, which is easily understandable. Therefore co-creation was explained as an interaction with Adidas and other consumers by delivering input, on an online platform, for a new slogan for a collection. This included creating own ideas, giving feedback to other consumers and voting for the best idea. This specific co-creation situation was based on the research of Füller, Hutter and Faullant (2011). They also investigated the co-creation process on an online platform.

After having described the used co-creation scenario, a description of the questionnaire will be given. The questionnaire started with a short introduction, thereafter respondents were asked about their perceived personality traits. These questions were followed by the above explained co-creation scenario. Next, respondents were asked about their general willingness to participate in the Platform (co-creation) of Adidas. This was followed by questions about the motives respondents had to participate in this platform. Later, some control questions were given to respondents. These questions asked for respondents' interest in sport fashion and their attitude towards the brand Adidas and interactions with brands in general. Lastly, respondents were asked general questions of their demographics (gender, age and educational background). The questionnaire can be found in Appendix 1.

Furthermore, the questionnaire was in Dutch, since this questionnaire was hold in the Netherlands and Dutch is the native language of the Netherlands. This means, Dutch is the most common language and is most understood by most inhabitants with different demographics. This probably leads to less measurement errors. The original questionnaires of John and Srivastava (1999) and Neghina et al. (2017), used for this research were written in English, therefore the questionnaires had to be translated into Dutch. In order to make sure this questionnaire was translated well, the Dutch translated questionnaire was translated back into English. The back translation was done by someone who has a high level of knowledge of both languages (a Dutch native speaker, with English as second language). Afterwards, the original questionnaire and the back-translated questionnaires were compared, to create the most optimal Dutch questionnaire.

3.2.1 Sample description

Within the first week after distributing the online questionnaire, 313 respondents started filling in the questionnaire. However 48 respondents filled in the questionnaire partly, as a result 265 respondents filled in the questionnaire completely. Since the missing values were the only invalid data, only 48 cases were deleted. As shown in Table 1; 26.4% of the respondents was male and 73.6% was female. Furthermore, more than half of the respondents (52.8%) had an age between 18 and 25 years, and 21.5% of the respondents had the age between 46 and 55 years. Additionally, most of the respondents were higher educated, since 30.9% of the respondents studied at the University of Applied Sciences and 45.3% of the respondents graduated from an University. Concluding, a large percentage of the sample was female, higher educated and between 18 and 25 years. As a result, the sample was not entirely representative for the general Dutch consumer. However, when keeping this in mind the results were still valuable for the current literature about co-creation and marketing managers, since the sample size is large enough.

Sample size is an important element of the power of an analysis and affects the generalizability of the results. For multiple regression analysis, at least five observations should be made for each independent variable in the variate. However, ten or fifteen observations per independent variable are preferred (Hair et al., 2010). This research investigated five independent variables, indicating that for this research a sample size of at least 100 is desirable. This means that at least 100 respondents are needed. Since this research had a sample of 265 respondents, this sample size requirement of multiple regression analysis has been met.

Table 1: Descriptive statistics of the sample population ($N = 265$)

Descriptive factor	n (%)
Gender	
Male	70 (26.4)
Female	195 (73.6)
Age	
18 – 25 years	140 (52.8)
26 – 45 years	33 (12.5)
46 – 55 years	57 (21.5)
Older than 56	35 (13.2)
Education	
Primary vocational education	1 (.4)
Preparatory secondary vocational education and senior secondary vocational education	31 (11.7)
Senior general secondary education and university preparatory education	27 (10.2)
University of Applied Sciences	82 (30.9)
University	120 (45.3)
PhD	4 (1.5)

3.3 Operationalization

3.3.1 Operationalization dependent variable ‘consumers’ motives’

For the dependent variable, the measurement scale of Neghina et al. (2017), which measures the six motives of consumers of willingness to co-create, was adapted in order to create a suitable scale for this research. The original scale of Neghina et al. (2017) consists of three items per motive with a seven-point Likert scale, with items ranging from 1 ‘totally agree’ to 7 ‘totally disagree’. This seven-point Likert scale was changed to a five-point Likert scale, with reversed answer possibilities: 1 ‘totally disagree’ to 5 ‘totally agree’. This scale was changed because the independent variables also consist of a five-point Likert scale (with 1 ‘totally disagree’ to 5 ‘totally agree’). Changing the dependent variables to the same scale as the independent variables makes the variables better comparable. The questions about consumers’ motives consisted of eighteen questions.

Individualizing motives. Individual motives are defined as consumers' expectations of mutual understanding of resources, roles and desired outcomes, together with the company, when participating in the online platform of a company (Neghina et al., 2017). An example of an item measuring this variable is: 'If I accept the invitation from Adidas to participate in the online platform, then I want to express my own interests and preferences'. *Relating motives.* Relating motives are defined as: consumers' expectations of emotional and social connection with the seller, when participating in the online platform of a company (Neghina et al., 2017). An example is: 'If I accept the invitation from Adidas to participate in the platform, then I want to be part of an influencing group'. *Empowering motives.* Empowering motives are defined as expectations consumers have to negotiate power and to influence the co-creation process outcome when participating in the online platform of a company (Neghina et al., 2017). An example is: 'If I accept the invitation from Adidas to participate in the platform, then I want to exercise control over this interaction'. *Ethical motives.* Ethical motives are defined as the expectations consumers have of the interaction as fair, honest and moral, when participating in the online platform of a company (Neghina et al., 2017). An example is 'If I accept the invitation from Adidas to participate in the platform, then I want to be treated honestly and fairly'. *Developmental motives.* Developmental motives are defined as consumers' expectations of developing operand and operant resources when participating in the online platform of a company (Neghina et al., 2017). An example is: 'If I accept the invitation from Adidas to participate in the platform, then I want to develop new knowledge and skills'. *Concerted motives.* Concerted motives are defined as the expectations consumers have of engaging in a pleasant, relevant and timely interaction, when participating in the online platform of a company (Neghina et al., 2017). An example is: 'If I accept the invitation from Adidas to participate in the platform, then I want to feel that the other people participating in this interaction appreciate my input'.

3.3.2 Operationalization independent variable 'personality traits'

To examine the effect of personality traits on these motives of consumers for the willingness to co-create, the Big Five was measured. In the past, several researches have suggested questionnaires to measure these personality traits of Norman (1963) (Costa & McCrae, 1985; Goldberg, 1992; John, Donahue, & Kentle, 1991, as cited in John & Srivastava, 1999; John & Srivastava, 1999). The BFI questionnaire of John et al. (1991), used by John and Srivastava (1999) is presented as a valid questionnaire when less complexity is desirable and when time

is scarce. The questionnaire consists of 44 easily to understand items, and therefore is an efficient instrument (John & Srivastava, 1999). Within this research, an efficient instrument was highly preferred, due to limited time and the desire for no complexity, since respondents might have been non-educated. For this reason, this questionnaire was used in this research. The questionnaire has a five-point Likert scale with items ranging from 1 'totally disagree' to 5 'totally agree' and commences the question with: 'I see myself as someone who...'.

The first variable, *extraversion* is defined as the extent to which consumers need attention and social interaction (Borghans et al., 2008). Eight items of the scale of John and Srivastava (1999) were used to measure extraversion. An example is: 'I see myself as someone who is talkative'. *Agreeableness*. Agreeableness is defined as consumers' tendency to have positive and harmonious interpersonal relationships (John & Srivastava, 1999). Nine items of John and Srivastava's (1999) scale were used to measure agreeableness. An example is: 'I see myself as someone who tends to find fault with others'. *Consciousness*. Consciousness indicates that consumers are willing to meet conventional rules, norms and standards (Borghans et al., 2008). Nine items of John and Srivastava's (1999) scale were used to measure consciousness. An example is: 'I see myself as someone who does a thorough job'. *Emotional stability*. Emotional stability is the degree to which consumers experience the world as within their control. Eight items of John and Srivastava's (1999) scale were used to measure neuroticism. Meaning, in this research we used the reversed answers of the neuroticism results, since emotional stability is the opposite of neuroticism. An example is: 'I see myself as someone who is depressed, blue'. *Culture*. Culture is defined as the extent to which consumers are looking for intellectual stimulation, change and variety (Borghans et al., 2008). Ten items of John and Srivastava's (1999) scale were used to measure culture. An example is: 'I see myself as someone who is original, comes up with new ideas'.

3.3.3 Control variables

This research included several control variables. The first control variable is gender. Personality traits differ among gender (Soto et al., 2011). Therefore, it is interesting to control for the variable gender in the relationship between personality traits and consumer motives to co-create. This variable was measured by the question: 'Are you a male or a female' (with 1 = 'male' and 2 = 'female'). Since this scale is not metric, a dummy was made (0 = male, 1 = female).

The second control variable is ‘willingness to co-create’. When consumers are willing to co-create they want to integrate their own resources with the company’s resources (Neghina et al., 2017). Consumers’ willingness to co-create strongly causes consumers intended co-creation behavior and is influenced by consumers’ motives to co-create (expectations of the co-creation process and outcome) (Neghina et al., 2017). However, consumers’ willingness to share resources could also influence the expectations of consumers. Namely, when consumers do not even want to integrate resources, they might be biased in explaining their motives to co-create. Furthermore, since there is such a close relationship between willingness to co-create and motives to co-create (Neghina et al., 2017), it is interesting to control whether this relationship also exists vice versa. In other words; whether the willingness to co-create might also influence consumers’ motives to co-create. This would result in a bidirectional causal relationship. This variable was measured by means of the seven-point Likert scale of Neghina et al. (2017), which measures the willingness to co-create by three questions. The seven-point Likert scale was changed, in the same way as for the motives of consumers, to a five-point Likert scale (with 1 ‘totally disagree’ to 5 ‘totally agree’). An example question is: ‘I am willing to participate in this Platform of Adidas’.

The third control variable is ‘attitude towards participation in a platform of a brand’. This control variable is useful for this research because a relationship between consumers’ attitude and consumers’ behavioral intention exists (Yeo, Goh, & Rezaei, 2017). Since consumers’ motives influence the willingness to co-create, which subsequently relates to intended co-creation behavior (Neghina et al., 2017), it is likely that the attitude towards participation of the co-creation process (platform of a brand) influences consumers’ motives. This variable was measured by the question: ‘What is your attitude towards participation of a platform of a brand, in general?’ (with 1 = ‘very negative’ to 5 ‘very positive’).

Table 2: Operationalization consumers' motives of willingness to co-create and Personality traits and willingness to co-create

Construct	Items	Name
Consumers' motives of willingness to co-create	<i>If I accept the invitation from Adidas to participate in the platform, then</i>	
Individualizing motives	I want to express my own interests and preferences	Q2B_1
	I want to use my own knowledge and skills	Q2B_2
	I want to ensure that this platform fits my needs	Q2B_3
Relating motives	I want to extend my existing network	Q2B_4
	I want to be part of an influential group	Q2B_5
	I want to strengthen my social status within my network	Q2B_6
Empowering motives	I want to exercise control over this platform	Q2B_7
	I want to be able to determine how much I want to be involved in this platform	Q2B_8
	I want to have an influence over the final output	Q2B_9
Ethical motives	I want to be treated honestly and fairly	Q2B_10
	I want to ensure that ethical guidelines are applied	Q2B_11
	I want to ensure transparency in how this platform is executed	Q2B_12
Developmental motives	I want to develop new knowledge and skills	Q2B_13
	I want to gain knowledge about things that are related to this platform	Q2B_14
	I want to satisfy my curiosity by learning new things on this platform	Q2B_15
Concerted motives	I want to feel that other participants of this platform (Adidas and other consumers) appreciate my input	Q2B_16
	I want to feel that this platform is well organized	Q2B_17
	I want to be able to easily collaborate with the other participants (consumers and Adidas)	Q2B_18
Personality traits	<i>I see Myself as Someone Who</i>	
Extraversion	Is talkative	Q1_1
	Is reserved	Q1_6r
	Is full of energy	Q1_11
	Generates a lot of enthusiasm	Q1_16
	Tends to be quiet	Q1_21r
	Has an assertive personality	Q1_26
	Is sometimes shy, inhibited	Q1_31r
	Is outgoing, sociable	Q1_36
Agreeableness	Tends to find fault with others	Q1_2r
	Is helpful and unselfish with others	Q1_7
	Starts quarrels with others	Q1_12r
	Has a forgiving nature	Q1_17
	Is generally trusting	Q1_22
	Can be cold and aloof	Q1_27r
	Is considerate and kind to almost everyone	Q1_32

	Is sometimes rude to others	Q1_37r
	Likes to cooperate with others	Q1_42
Consciousness	Does a thorough job	Q1_3
	Can be somewhat careless	Q1_8r
	Is a reliable worker	Q1_13
	Tends to be disorganized	Q1_18r
	Tends to be lazy	Q1_23r
	Perseveres until the task is finished	Q1_28
	Does things efficiently	Q1_33
	Makes plans and follows through with them	Q1_38
	Is easily distracted	Q1_43r
Emotional Stability	Is depressed, blue	Q1_4r2.0
	Is relaxed, handles stress well	Q1_9
	Can be tense	Q1_14r2.0
	Worries a lot	Q1_19r2.0
	Is emotionally stable, not easily upset	Q1_24
	Can be moody	Q1_29r2.0
	Remains calm in tense situations	Q1_34
	Gets nervous easily	Q1_39r2.0
Culture	Is original, comes up with new ideas	Q1_5
	Is curious about many different things	Q1_10
	Is ingenious, a deep thinker	Q1_15
	Has an active imagination	Q1_20
	Is inventive	Q1_25
	Values artistic, aesthetic experiences	Q1_30
	Prefers work that is routine	Q1_35r
	Likes to reflect, play with ideas	Q1_40
	Has few artistic interests	Q1_41r
	Is sophisticated in art, music, or literature	Q1_44
Control variable	<i>To what extent do you agree with the following statements?</i>	
Willingness to co-create	I am willing to participate in this Platform of Adidas	Q2A_1
	I am willing to invest time into this Platform of Adidas	Q2A_2
	I am willing to invest energy into this Platform of Adidas	Q2A_3

3.3.4 Pre-test

To test whether the questionnaire and the included items were clear and obvious to respondents a pre-test was conducted. More precisely, the pre-test controlled if respondents understood the outlined co-creation scenario and the questions. For the pre-test a ‘reader focused method test’ was chosen, which means that a sample of respondents of the target group was used for testing the questionnaire (Sienot, 1997). Specifically, the think-aloud method was used, in which respondents were asked to think aloud while answering the questionnaire (Collins, 2003). This method was used “to understand perceive and interpret

questions, and to identify potential problems that may arise in prospective survey questions” (Drennan, 2003, p. 59). This means that the questionnaire is viewed from the respondents’ point of view instead of the interviewer, this can give insights into possible problems the researcher was not aware of. The think-aloud method is appropriate for questionnaires (Collins, 2003).

Based on the pre-test, a number of adjustments have been made to the questionnaire. First, the fact that answers possibilities of part one were ordered as: 1 ‘totally disagree’ to 5 ‘totally agree’ and for part two as 1 ‘totally agree’ to 5 ‘totally disagree’ was perceived as confusing for respondents. To prevent confusion and biased answers, the answer possibilities for the questions of part two were changed towards 1 ‘totally disagree’ to 5 ‘totally agree’. Second, the questions about consumers’ motives to co-create were stated as how respondents ‘hoped’ the co-creation would be, this also turned out to be confusing. When interpreting the meaning of motives: ‘expectations of what a consumer wants the co-creation process includes’, it does make sense to change the formulation of these questions. Therefore, the questions were formulated to how respondents ‘wanted’ the co-creation to be. Furthermore, the described co-creation scenario in the questionnaire has received some adjustments to make it better understandable. Finally, to optimize the questionnaire, some small changes have been done based on the pre-test.

3.4 Data analysis

After the data was collected, it had to be analyzed. First, the data was prepared to analyze (by for instance reversing the reversed items, in order to interpret them). This was followed by a sample description. Subsequently, factor analysis controlled whether the expected items really formed the expected factor (Field, 2013). This was done in combination with reliability analysis, which controls whether the variable really reflects what it is supposed to reflect (Field, 2013). Thereafter correlation checks were done; it is important to control for clusters since this research investigated the individual effect of each personality trait on each individual motive.

Afterwards data was analyzed by means of multiple regression analyses. This was done after all the assumptions for multiple regression analysis have been met. Since multiple regression measures the correlation between metric independent and metric dependent variable (Hair et al., 2010), this method seems appropriate for this research. Namely, for both dependent and the independent variables Likert scale items were used to measure these

variables. Therefore both are metrically scaled variables. However, multiple regression analysis measures the correlation between several independent variables and one dependent variable. Since this analysis only measured one dependent variable it was necessary to run several multiple regression analyses. To test the influence of possible other dependent variables on the relationship between the independent and dependent variable, several dependent variables were used as control variable in these analyses.

3.5 Construct reliability and validity

The five personality traits, the six motives to co-create and the control variable 'willingness to co-create' are latent variables; therefore they can only be measured indirectly (Hair, 2010). Three factor analyses were used to understand the structure of the items of these variables. These analyses checked whether the correlation between the items was sufficient to form a factor together (Field, 2013). Principal Axis Factoring was used because some variables were expected based on existing theories. More precisely, based on the theory of John and Srivastava (1999), 44 items that measure the personality traits were expected to load on 5 constructs (Hair, 2010). Furthermore, based on Neghina et al. (2016), 18 items that measure the motives were expected to load on 6 constructs and 3 items were expected to load on the construct 'willingness to co-create'.

First, Kaiser-Meyer-Olkin (KMO) verified sampling adequacy for all variables; dependent variables (.88), independent variables (.81) and control variable (.84) (Field, 2013). Thereafter, the Bartlett's test of Sphericity was significant for the dependent, independent variables and control variable; thus the items had a sufficient correlation to conduct a factor analysis (Field, 2013). Concluding, factor analysis is allowed.

3.5.1 Construct reliability and validity independent variable 'personality traits'

First an exploratory factor analysis was used for the independent variable personality traits. The factor analysis showed 44 items loading on 10 factors. Nevertheless, the last 3 factors had a low explained variance (each lower than 3%), and the scree plot showed 7 factors. However, as explained before, based on the widely used scale of John and Srivastava (1999) of personality traits, the variable should have 5 factors.

Since theory states 5 constructs, the principal axis analysis was instructed to form 5 factors. To be able to better interpret the factor analysis and discriminate between variables, rotation was used (Field, 2013). More specifically, since factors were not expected to

correlate high, varimax was used to rotate. First the rotated factor matrix was interpreted to control whether the factor analysis showed the same factors as theory. The 3 highest loading items on the 5 factors were used to determine what the factor represented. The factors found confirmed the same factors as theory.

Next decisions were made on whether some items should be removed. The decision to remove an item was based on 1) factor analysis; 2) Cronbach's alpha (reliability analysis); 3) theory and 4) content of the items. As a first step the factor analysis was conducted. When deciding which items to delete based on the factor analysis this research focused on items that loaded low on the expected factor ($<.30$) and cross loaders (difference between the loadings is less than $|.20|$) (Field, 2013). After items were identified that were problematic for a factor, Cronbach's alpha was analyzed for the factor. If Cronbach's alpha improved substantially upon removal of the problematic items, these items were deleted from the factor. If items loaded on a different factor than the factor they should theoretically load on, the content of the item and the theory behind the factors were examined to decide whether to include the item in a different factor. After removing each item, factor analysis was conducted again to interpret the changes in the factor analysis after removing.

Emotional stability. The factor analysis showed all eight items that theoretically belong to the factor 'emotional stability' loaded onto the same factor. However, one item (Q1_29r2.0), the reversed of: 'I see myself as someone who can be moody', was removed. This item was a cross loader on 'extraversion' (.43) (see Appendix 2.1.1). Furthermore, Cronbach's alpha improved when this item was removed and the explained variance improved (from 52% to 58%).

Culture. All 10 theoretically expected items belonged to the factor 'culture' and no cross loaders were shown (see Appendix 2.1.2). Furthermore, the Cronbach's alpha was good (.83) and did not improve when removing an item. As a result no items of this factor were removed.

Extraversion. Not all expected 8 items belonged to the factor 'extraversion'. According to the factor analysis item Q1_36: 'I see myself as someone who is outgoing, sociable' belonged to 'agreeableness' (.40) (see Appendix 2.1.2). Which makes sense when interpreting the content, which was translated into: 'ik zie mijzelf als iemand die vriendelijk, sociaal is'. The translation of outgoing to 'vriendelijk' was perhaps not the right translation, and 'vriendelijk' or 'friendly', seemed to theoretically fit 'agreeableness'. Furthermore the Cronbach's alpha improved (from .76 to .78) when removing this item. So Q1_36 was removed and factor analysis was conducted again. Still, 'extraversion' was not acceptable yet,

according to the factor analysis, Q1_26 ('I see myself as someone how has an assertive personality') was a cross loader (see Appendix 2.1.3). Although the theory explains this item belongs to 'extraversion', it was acceptable to remove this item. As stated, these item was a cross loader (on several items), which is preferable to be prevented, furthermore still 6 items covered 'extraversion' well, and the Cronbach's alpha did not change substantially. Because of this, Q1_26 was removed. Finally, item Q1_11 ('I see myself as someone who is full of energy') loaded slightly on 'culture' (see Appendix 2.1.4). However, since this was the only cross loader (which was low (.26)), Cronbach's alpha did not improve when removing, the content seemed to fit with other items and the factor 'extraversion', this item was not removed.

Consciousness. Also for 'consciousness', not all expected eight items actually belonged to this factor. One reversed item, Q1_8r loaded on 'emotional stability' (-.44) (see Appendix 2.1.4), when interpreting the content: 'I see myself as someone who can be careless', this loading makes sense because 'emotional stability' includes control, which is somewhat the opposite of careless. Furthermore, the Cronbach's alpha increased (from .71 to .73). Therefore, this item was removed. After removing item Q1_8r factor analysis was conducted again. Q1_13 did not seem to belong to 'consciousness': 'I see myself as someone who is a reliable worker' because of its low loading (.28) (see Appendix 2.1.5). Since Cronbach's alpha also increased slightly (to .74) and the communality of this factor is very low (.09) this item was removed.

Agreeableness. All theoretically expected items also belonged to 'agreeableness' according to the factor analysis (see Rotated Factor matrix in Appendix 2.1.6). Furthermore, the content of all the items loading on agreeableness seemed to fit with each other and the Cronbach's alpha, which was acceptable (.68), did not improve when removing an item. Therefore no items were removed for this factor.

Concluding, the factor analysis, which was instructed to form 5 factors, was used for the variable personality traits. This seemed suitable. Firstly, theory states 5 constructs. Furthermore, the factors found with factor analysis confirmed the same factors as theory. Lastly, the content of the items, loading on one factor, seemed to fit with each other and the factor. So after removing some items, 5 personality trait factors had been formed. The constructs had discriminant validity since all cross loaders have been removed and therefore no items loaded on different factors. Even though all cross-loaders were removed and Cronbach's alpha did not improve if any more items were removed, the explained variance of

many of the scales was still not high. Therefore, not all the constructs had convergent validity. This calls into question the validity of the scale, and whether it is unidimensional.

Lastly, the 5 independent variables were computed; by summing up all items and dividing the total by the number of items.

3.5.2 Construct reliability and validity dependent variable 'consumers' motives'

Principal axis factoring for the dependent variable 'motives to co-create' showed 4 instead of 6 factors. When instructing factor analysis to form 6 factors, the analysis did not show the theoretically expected constructs (even with rotation). Since the instructed factor analysis (of 6 factors) of the variable motives, in comparison to the variable 'personality traits' did not show the same factors as theory, the forced factor analysis was not used. To be better able to interpret the results the factor analysis was rotated with oblimin rotation. This method was permitted because several correlations were $>.30$ (Field, 2013). After rotation the factor analysis still showed 4 factors. Again, the decision to remove an item was based on 1) factor analysis; 2) Cronbach's alpha (reliability analysis); 3) theory and 4) content of the items.

Influencing motives. Influencing motives was a newly formed factor consisting of items of 'individualizing motives', 'empowering motives' and one item of 'concerted motives'. Factor analysis showed items of these constructs loaded together on the first factor (Appendix 2.3.1). Two constructs; 'individualizing motives' and 'empowering motives', loaded equally high. When looking at the content the items Q2B_1, Q2B_2, Q2B_3, Q2B_7, Q2B_8, Q2B_9 and Q2B_16 all seemed to ask for respondents' interest in 'having influence on the co-creation process' (see Table 2). Despite these items theoretically do not belong to each other; it is valuable to form one factor of these items; according to factor analysis, the Cronbach's alpha (improved from .71 to .86 when merging (see Appendix 2.4.1)) and content of these items. When reviewing the meaning of the original constructs (see Paragraph 2.2), it did make sense why the used items did not really seem to be suitable to the theoretically explained constructs. The items of for instance 'individualizing motives' did not really seem to measure the 'mutual understanding' part of this factor. As a result, the items of 'individualizing motives' and 'empowering motives' were merged together and labeled with factor 'influencing motives'. Influencing motives were defined as: consumers' expectations of having influence on the co-creation process (with the company) itself and the outcome of it.

The third construct, 'concerted motives', was removed from the factor analysis except for one item, Q2_16. This item: 'I want to feel that other participants of this platform

appreciate my input', clearly loaded on 'influencing motives' (see Appendix 2.3.1). This item also seemed to fit with the content of 'influencing motives' and with the other items loading on this factor, because these include 'having influence on' (see Table 2). However, the other two items (Q2B_18 and Q2B_17) did not seem to belong to the content (see Table 2). Furthermore, item Q2B_18 (.37) also cross loaded with 'developmental motives' (- .32) and the Cronbach's alpha was still strong after removing both items (from .86 to .83). Therefore, these items had been removed one by one.

Then, item Q2B_7 (.45) was also removed from the factor 'influencing motives' because it cross loaded with 'relating motives' (- .38) (see Appendix 2.3.2), the Cronbach's alpha did not change substantially (from .83 to .82), and based on theory the factor 'influencing motives' was not formed yet, so this factor did not consist of items yet.

Relating motives and developmental motives. All the items of the construct 'relating motives' loaded on one factor. Also all the items of the construct 'developmental motives' loaded on one factor (see pattern matrix Appendix 2.3.3). The factor analysis therefore confirmed these constructs. The Cronbach's alpha was .84 and .83 respectively. This means both constructs were reliable.

Ethical motives. The 3 items of the construct ethical motives loaded on the same factor. However, one item was a cross loader; Q2B_10 (.36), this item also loaded on 'influencing motives' (.44) (see pattern matrix Appendix 2.3.3). This item states: 'I want to be treated honestly and fairly' this does not belong to the explained factor 'influencing motives'. However, this item was not removed. This because first, the content fitted with 'ethical motives' ('honestly' and 'fairly' are clear indicators of ethical motives) and the theory explained this item belonged to ethical motives. Furthermore, 'ethical motives' consisted of only two items when removing Q2B_10. Lastly, the Cronbach's alpha was .72, which indicated the internal consistency was sufficient.

Concluding, 4 factors were formed instead of theoretically expected 6 constructs, and 3 items were removed. This seemed to be reasonable since at first, factor analysis showed 4 constructs instead of 6. Next, the Cronbach's alpha improved when merging items of three constructs. Lastly, the content of these items, which together form a factor, seemed to correspond with each other. However, not all constructs had divergent validity, since factor analysis still showed one cross-loader. This is only the case for two constructs since only one item corresponded with two constructs. Furthermore, as Table 3 shows, the explained variance of all the variables seems to be good. Therefore, all items correspond with one construct. This means the constructs had convergent validity.

Lastly the 4 variables were computed; by summing up all items and dividing the total by the number of items.

3.5.2 Construct reliability and validity control variable ‘willingness to co-create’

The items belonging to the 4 motives of consumers, together with the items theoretically expected to belong to the control variable ‘willingness to co-create’, were used in the third principal axis factoring. Again, factor analysis was rotated with oblimin rotation. The factor analysis showed all the items (Q2A_1, Q2A_2, Q2A_3), of ‘willingness to co-create’ clearly loaded on one construct (see Appendix 2.5) and the Cronbach’s alpha was .94. As a result this control variable was reliable and was used in the multiple regression analyses.

Furthermore, this construct had divergent and convergent validity. This because all items only loaded on this factor, and the items corresponded with the construct because the percentage explained variance was high (90%).

Lastly, the variable was computed; by summing up all items and dividing the total by the number of items.

Table 3: Internal consistency and convergent validity personality traits and consumers’ motives

Construct	Original # items	Cronbach’s alpha	# of items deleted	Cronbach’s alpha	Percentage explained variance
Extraversion	8	.769	2	.779	48%
Agreeableness	9	.677	0		29%
Consciousness	9	.713	2	.739	39%
Emotional stability	8	.867	1	.877	58%
Culture	10	.826	0		40%
Influencing	9	.855	3	.821	54%
Relating	3	.843	0		76%
Ethical	3	.717	0		64%
Developmental	3	.827	0		74%
Willingness to co-create	3	.942	0		90%

3.6 Research ethics

It was important to be careful with the data collected from respondents. This means that at the beginning of the questionnaire was mentioned that the received data from respondents in this research was only used for academic purposes and not for any other purposes. In addition the questionnaire mentioned that it was voluntary for respondents to participate with the research and respondents had the freedom to withdraw from the research any time. Furthermore to protect personal data, the collected data was anonymous. This means that no confidential questions such as contact information have been asked. Lastly, respondents had the possibility to receive the results of the research by providing email address at the end of the questionnaire. This email address will only be used for informing the respondents of the outcomes of this research and not for any other purposes.

4. Results

This chapter discusses the results of this research. First a describing analysis of the data is given. Thereafter the assumptions of multiple regression analysis are described. Last, the results of the multiple regression analyses are given and the hypotheses are accepted or rejected.

4.1 Describing analysis

To examine the relationship between the variables a correlation analysis was conducted, the correlations can be found in Table 4. The most striking of this table is that some personality traits were significantly related with each other and some motives were significantly related with each other. However, none of the motives were related to the personality traits. The correlations of the independent variables are especially relevant since multicollinearity is not desired. However these correlations are only moderate, which means this is not a problem for the results (Field, 2013). However, a strong relationship between 'attitude towards participation platform of a brand' and 'willingness to co-create' existed. Besides, 'willingness to co-create' and 'attitude towards participation platform of a brand' are both correlated with consumers' motives. Finally, the means of the variables were quite high, this means respondents scored high on a lot of variables

Table 4: Correlation matrix and descriptive statistics personality traits, consumers' motives and control variable

	1	2	3	4	5	6	7	8	9	10	11	12
1. Extraversion												
2. Agreeableness	.06											
3. Conscientiousness	.09	.03										
4. Emotional stability	.37**	.13*	.09									
5. Culture	.31**	.09	-.13*	.21**								
6. Influencing	-.06	.01	-.04	-.01	.05							
7. Relating	.04	-.02	.00	-.01	.07	.38**						
8. Ethical	.02	.08	-.02	-.01	.08	.42**	.19**					
9. Developmental	.08	.02	-.05	.08	.113	.51**	.43**	.34**				
10. Willingness to co-create	.07	-.03	-.06	.02	.19**	.24**	.19**	.19**	.26**			
11. Gender	-.12	-.00	-.06	.42**	-.14*	.07	-.02	.01	-.02	.04		
12. Attitude participation Platform of a brand	.00	-.11	-.04	-.02	.07	.32**	.26**	.12	.39	.67**	.12	
Mean	3.44	3.96	3.50	3.32	3.45	3.66	2.83	4.00	3.38	2.60	1.74	2.85
Standard deviation	.63	.43	.42	.73	.61	.63	.91	.64	.83	1.02	.44	.84

$n = 265$, gender coded as 1 = male 2 = female, ** $p < .01$; * $p < .05$

4.2 Assumptions multiple regression analysis

To be able to conduct multiple regression analysis, the data has to meet five assumptions (Field, 2013). The first assumption states that the variables have to be normally distributed. While the skewness and kurtosis values did not show the preferred values for a few variables (and did not become better after transforming with Log, Square root and Reciprocal), the P-P Plots did show that the items were pretty normally distributed (see Appendix 2.6.1). Furthermore, since the data was based on a large sample, skewness and kurtosis are not a problem; large samples are often significant (Field, 2013). Furthermore, regression is robust to deviations of normality (Field, 2013). Consequently, the data has met this assumption.

The second assumption states that variables have to be metrically scaled (interval or ratio). Since for the five personality traits, the six motives and two control variables a 5-point Likert scale was used, these variables were all interval scaled. Which means that they met the

assumption. Since the control variable gender was categorically scaled, this variable was transformed into a dummy variable. As a result, this assumption also has been met.

The third assumption, linearity, states that relationship between the dependent and independent variables have to be linear. Since the Scatterplots show linear and horizontal relationships between the independent and dependent variables this assumption has been met (see Appendix 2.6.2).

The fourth assumption states multicollinearity is not allowed. Multicollinearity exists when the independent variables correlate highly with each other (Field, 2013). The tolerance value should be above .2 (minimum of .94) and the VIF value below 10. This was the case for all the independent variables. Therefore, this assumption has been met.

The fifth assumption is homoscedasticity; the variance of the residuals is equal (Hair, 2010). The scatterplots showed that the dots were pretty much spread out on the x-axis and did not really show a pattern (see Appendix 2.6.2). Because of this, the assumption has been met.

Lastly, the Durbin-Watson test, “which tests for serial correlations between errors” (Field, 2013, p. 311), showed there were no serial correlations between errors. In consequence, all the assumptions were met, so multiple regression analysis is permitted (Field, 2013).

4.3 Multiple regression analyses

After all assumptions have been met, four hierarchical multiple regressions have been run, since there are four dependent variables. The first, *Influencing motives*. In this hierarchical multiple regression, the dependent variable was the new variable ‘influencing motives’ consisting of the constructs ‘individualizing motives’ and ‘empowerment motives’ and one item of ‘concerted motives’ (see Table 5). In Model 1, the control variables gender, ‘attitude towards participation platform of a brand’ and ‘willingness to co-create’ were entered. The results of the regression analysis showed that Model 1 explained a significant proportion of the variance ($R^2 = .12$, $F(3,261) = 11.47$, $p < .001$). In Model 2, the independent variables, the personality traits agreeableness and emotional stability were entered. The independent variables however did not explain any additional variance above the control variables ($R^2\Delta = .01$, $F(2, 259) = .87$, $p = .42$). The model as a whole remained significant ($R^2 = .12$, $F(5,259) = 7.22$, $p < .001$). Contrary to the main variables, which did not have an effect on influencing motives, two control variables had a significant effect on ‘influencing motives’. Gender had a

negative effect on ‘influencing motives’ ($\beta = -.14, p < .05$). Thus, men score higher on influencing motives than women. Furthermore, ‘attitude towards participation platform of a brand’ ($\beta = .33, p < .001$) had a positive effect on influencing motives. However Model 2 was significant the personality traits agreeableness ($\beta = .05, p = .35$) and emotional stability ($\beta = -.07, p = .27$) did not have a significant effect on influencing motives to co-create. Since these were newly formed relationships, as a result of factor analysis, no hypotheses were rejected based on these findings.

Table 5: Effects of personality traits agreeableness and emotional stability on influencing motives

	Model 1: control variables only			Model 2: control variables with main effects		
	β	SE	p	β	SE	p
Willingness to co-create	.029	.05	.712	.027	.05	.731
Gender	-.104	.08	.078	-.135*	.09	.038
Attitude towards participation Platform of a brand	.317***	.06	.000	.326***	.06	.000
Agreeableness				.052	.09	.348
Emotional stability				-.072	.06	.271
R ² (Adjusted R ²)	.116 (.106)			.122 (.105)		

* $p < .05$; ** $p < .01$ en *** $p < .001$

Relating motives. In the second hierarchical multiple regression, the dependent variable was ‘relating motives’ (see Table 6). In Model 1, the control variables gender, ‘attitude towards participation platform of a brand’ and ‘willingness to co-create’ were entered. The results of the regression analysis showed that Model 1 explained a significant proportion of the variance ($R^2 = .07, F(3,261) = 6.77, p < .001$). In Model 2, the independent variables, the personality traits extraversion and agreeableness, were entered. The independent variables however did not explain any additional variance above the control variables ($R^2\Delta = .00, F(2, 259) = .86, p = .86$). The model as a whole remained significant ($R^2 = .07, F(5,259) = 4.01, p < .01$). Contrary to the main variables, which did not have an effect on relating motives, one control variable ‘attitude towards participation platform of a brand’

had a significant positive effect on relating motives ($\beta = .27, p < .01$). However Model 2 was significant the personality trait extraversion did not have a significant effect on relating motives to co-create ($\beta = .03; p = .60$). Thus, hypothesis 1 was rejected. Agreeableness also did not have a significant effect on relating motives to co-create ($\beta = .01; p = .88$). Therefore, hypothesis 4 was rejected.

Table 6: Effects of personality traits extraversion and agreeableness on relating motives

	Model 1: control variables only			Model 2: control variables with main effects		
	β	SE	p	β	SE	p
Willingness to co-create	.012	.07	.881	.010	.07	.924
Gender	-.052	.12	.388	-.050	.13	.424
Attitude towards participation Platform of a brand	.261**	.09	.001	.265**	.09	.001
Extraversion				.032	.09	.602
Agreeableness				.009	.13	.876
R ² (Adjusted R ²)	.072 (.062)			.073 (.055)		

* $p < .05$; ** $p < .01$ en *** $p < .001$

Ethical motives. In the third hierarchical multiple regression, the dependent variable was ‘ethical motives’ (see Table 7). In Model 1, the control variables gender, ‘attitude towards participation platform of a brand’ and ‘willingness to co-create’ were entered. The results of the regression analysis showed that Model 1 explained a significant proportion of the variance ($R^2 = .04, F(3,261) = 3.42, p < .05$). In Model 2, the independent variables, the personality traits agreeableness and consciousness were entered. The independent variables however did not explain any additional variance above the control variables ($R^2\Delta = .01, F(2, 259) = .87, p = .34$). The model as a whole remained significant ($R^2 = .05, F(5,259) = 2.49, p < .05$). Contrary to the main variables, which did not have an effect on ethical motives, one control variable; ‘willingness to co-create’ had a significant positive effect on ethical motives to co-create. However Model 2 was significant the personality trait agreeableness did not have a significant effect on ethical motives to co-create ($\beta = .09; p = .15$). Thus, hypothesis 6 was

rejected. Consciousness also did not have a significant effect on ethical motives to co-create ($\beta = -.01$; $p = .86$). Thus, hypothesis 7 was rejected.

Table 7: Effects of personality traits agreeableness and consciousness on ethical motives

	Model 1: control variables only			Model 2: control variables with main effects		
	β	SE	p	β	SE	p
Willingness to co-create	.208*	.05	.010	.201*	.05	.015
Gender	.006	.09	.918	.004	.09	.944
Attitude towards participation Platform of a brand	-.022	.06	.785	-.008	.06	.925
Agreeableness				.090	.09	.145
Consciousness				-.011	.09	.861
R ² (Adjusted R ²)	.038 (.027)			.046 (.027)		

* $p < .05$; ** $p < .01$ en *** $p < .001$

Developmental motives. In the fourth hierarchical multiple regression, the dependent variable was ‘developmental motives’ (see Table 8). In Model 1, the control variables gender, ‘attitude towards participation platform of a brand’ and ‘Willingness to co-create’ were entered. The results of the regression analysis showed that Model 1 explained a significant proportion of the variance ($R^2 = .15$, $F(3,261) = 15.61$, $p < .001$). In Model 2, the independent variables, the personality traits extraversion and culture, were entered. The independent variables however did not explain any additional variance above the control variables ($R^2\Delta = .01$, $F(2, 259) = 1.33$, $p = .27$). The model as a whole remained significant ($R^2 = .16$, $F(5,259) = 9.93$, $p < .001$). Contrary to the main variables, which did not have an effect on developmental motives, one control variable ‘attitude towards participation platform of a brand’ had a significant positive effect on developmental motives ($\beta = .41$, $p < .001$). However Model 2 was significant the personality trait extraversion did not have a significant effect on developmental motives to co-create ($\beta = .07$; $p = .40$). Thus, hypothesis 2 was rejected. Culture also did not have a significant effect on developmental motives to co-create ($\beta = .10$; $p = .27$). Thus, hypothesis 9 was rejected.

Table 8: Effects of personality traits extraversion and culture on developmental motives

	Model 1: control variables only			Model 2: control variables with main effects		
	β	SE	p	β	SE	p
Willingness to co-create	-.010	.06	.901	-.032	.06	.682
Gender	-.065	.10	.263	-.050	.11	.394
Attitude towards participation Platform of a brand	.399***	.08	.000	.407***	.08	.000
Extraversion				.050	.08	.403
Culture				.068	.09	.272
R ² (Adjusted R ²)	.152 (.142)			.161 (.145)		

* $p < .05$; ** $p < .01$ en *** $p < .001$

To sum up, the hierarchical multiple regression analyses showed no effects between the tested main variables. However, ‘attitude towards participation platform of a brand’ did have a significant effect on ‘influencing motives’, ‘ethical motives’ and ‘developmental motives’, gender did have a significant effect on influencing motives to co-create, and ‘willingness to-co-create’ did have a significant effect on developmental motives. As a result, all tested hypotheses were rejected. Since three hypotheses (3, 5 and 8) were not tested this research could not confirm or reject these hypotheses.

4.4 Additional analyses

Some additional analyses were done to check for influence of demographic factors in the sample on the results. The file was split on several demographic variables, after which the same multiple hierarchical regressions were run.

First, the sample was split for gender. A significant effect was found only for men. Namely, a significant positive effect of the personality trait agreeableness on ethical motives ($\beta = .28$; $p < .05$) was found (see Appendix 2.8 for the results of all additional analyses). Thus, the higher men score on the personality trait agreeableness, the more important they think ethical motives are.

Second, the sample was split for age. Only two significant effects were found. For the oldest group of consumers with an age of 56 or higher, a significant positive effect was found of the personality trait agreeableness on relating motives ($\beta = .46$; $p < .05$), despite that the model as a whole was not significant. The latter is probably due to the other variables in the model not being significant. Thus, consumers with an age of 56 or higher, who score higher on the personality trait agreeableness, think relating motives are more important. Furthermore, a significant effect was found within the age group of consumers between 26 and 45 years old. Namely, consumers between 26 and 45 years, scoring higher on extraversion think developmental motives are more important ($\beta = .29$; $p < .05$).

Third, the sample was split for education level. Only two significant effects were found. First, in the sample consisting of senior general secondary education and university preparatory education, a significant positive effect was found for the effect of the personality trait extraversion on the relating motives ($\beta = .42$; $p < .05$) despite that the model as a whole was not significant. Thus, consumers with a senior general secondary education and a university preparatory education, who score higher on the personality trait extraversion, think relating motives are more important. Furthermore, for people with an primary vocational education a higher score on the personality trait culture had a significant positive effect on developmental motives ($\beta = .54$; $p < .05$). Hence, consumers with primary vocational education who score higher on the personality trait culture, think developmental motives are more important.

Lastly, it could have been possible that ‘attitude towards platform of a brand’ mediates the relationship between personality traits and motives, since ‘attitude towards platform of a brand’ was a significant predictor of influencing, relating and developmental motives. As a first step to test whether ‘attitude towards a brand’ was perhaps a mediator, a hierarchical multiple regression analysis was used to test whether personality traits predict attitude. This was not the case, so it seemed that ‘attitude towards platform of a brand’ was not a mediator in the relationship between personality traits and motives.

In short, the hierarchical multiple regression analyses showed a few differences, but not many, when run separately for gender, age groups and education groups, on which personality traits were predictive on consumers’ motives to co-create.

5. Conclusion

This research contributes to the extensive literature base regarding co-creation in service contexts by investigating how personality traits influence consumers' motives of willingness to participate in the co-creation process of a company. Earlier research lacks to investigate a relationship between personality traits and consumers' motives to co-create. Therefore, this research has an explorative character with the aim to investigate whether a relationship exists. To be able to analyze this relationship, an online questionnaire was conducted, with a valid response of 265 respondents.

This chapter discusses the main insights of this research. First, an overall conclusion of the results is given. Secondly, the discussion compares main insights of the research to the literature. Consequently, theoretical and practical implications are mentioned and the research concludes with the limitations of this research and suggestions for further research.

5.1 Conclusion and discussion

This research aims to answer the following research question: *“How do the personality traits influence consumers' motives of willingness to participate in the co-creation process of a company?”*. To answer this question, expectations of eligible relationships were formed combining the personality traits and consumers' motives. However, data analysis resulted in the rejection of all tested expectations. This means that no relationship was found between the personality trait extraversion with relating motives and developmental motives. Second, no effect of the personality trait agreeableness was found on relating motives and ethical motives. Third, for the personality trait consciousness no relationship with ethical motives was found. Last, the relationship between the personality trait culture and developmental motives was not supported.

Therefore, this research lacks to find a relationship between personality traits and consumers' motives of willingness to participate in the co-creation process (see Table 9). This is contrary to the expectations based on literature about co-creation and personality traits. Personality traits are individuals' differences regarding thoughts, feelings and actions, and the uniqueness of individuals determines the way one values an activity (Costa & McCrae, 1992; Grönroos & Vioma, 2012). The latter, in turn influences consumers' motives (Neghina et al., 2017). Concluding personality traits were expected to influence consumers' motives.

This research contributes to the findings of Neghina et al. (2017). The research of Neghina et al. (2017) concludes that consumers value different motives in different service

contexts. However, the current research did not find the expected results, which may be explained by the use of a different research design. First, the current research investigated the relationship of personality traits on consumers' motives for one specific co-creation process. While Neghina et al. (2017) focuses on linking consumers' motives to service contexts. Furthermore, Neghina et al. (2017) state that the motives of consumers to co-create differ per service context. This might explain the lack of relationships between personality traits and consumers' motives in the current research, since the focus is put on one specific co-creation process (or service). The motives that have been perceived as important could be a result of the specific co-creation process (Neghina et al., 2017). Therefore, it might be possible that the motives are more affected by the service context than personality traits and accordingly, differences can be present in another service context.

Furthermore, Neghina et al. (2017) has investigated six motives, whereas the current research managed to investigate four motives. The original scale of Neghina et al. (2017) was adapted. Only three variables of the original scale were used and a new variable, 'influencing motives', was created. The newly formed variable consisted of items of the two constructs individualizing and empowering motives, and one item of concerted motives.

This because the original scale of Neghina et al. (2017) did not seem to be suitable for this research according to the reliability and factor analysis, which showed four factors instead of six. When reviewing the content of the items, which loaded on one factor, this seemed to make sense. The content of the items of individualizing and empowering and one item of concerted motives seemed to be in line with each other. Therefore they formed a problem for this research. The items all seemed to measure consumers' expectations about 'having influence on the co-creation process'. This is in line with 'empowering motives'. This construct includes 'influencing the service process outcome'. However, 'individualizing motives' are consumers' expectations of mutual understanding of resources, roles and desired outcome. The items of this construct do not really seem to measure the 'mutual understanding', but seem to be more interested in the way consumers would like to have influence on the co-creation process. Therefore it does make sense that according to factor analysis these items loaded on the same factor as empowering motives. Furthermore, one item of 'concerted motives' (which are consumers' expectations of engaging in a pleasant, relevant and timely interaction), seemed to fit the factor 'influencing motives' and the content of the other items loading on this factor.

The used sample could be an explanation for finding different factors than Neghina et al. (2017). Men (72 percent) and elderly respondents were slightly overrepresented in the

research of Neghina et al. (2017), whereas in the current research women (73.6 percent) and young adults (52.8 percent) were overrepresented. This could have had some consequences. First, men and women have different motives (Meece, Glienke, & Burg, 2006). This is confirmed by the results of the current research, which show that men think ‘influencing motives’ are more important than women. Second, men and women’s interpretation and processing of the items of ‘influencing motives’ could have been different. Namely, people’s interest in a text determines their motivation and comprehension of the text (Renninger, Krapp, & Hidi, 2014). Therefore, women might for instance have interpreted the items of ‘influencing motives’ more or less the same because they do not perceive them as that important. Whereas males could have interpreted the items of ‘influencing motives’ as more different because they see these items are important. Concluding, the large part of women in the sample of the current research, compared to Neghina et al. (2017), might have affected the different found motives in both researches.

Despite the differences in research design, this research also seems to be in line with the research of Neghina et al. (2017). The current research states a positive effect of ‘attitude towards platform of a brand’ on influencing, relating and developmental motives. This seems to reflect the findings of Neghina et al. (2017). Namely, consumers experience different fulfillment of needs and wants (which are expected values) per different service context, which influences their motives. Values, attitudes and behavior have interrelationships and in turn, values influence attitudes (Homer & Kahle, 1988; Yeong Kim, & Chung, 2011). Since values relate to attitudes and motives, it is compatible that attitude affects consumers motives (and even differ per service context).

Next to comparing the outcomes of this research with the outcomes of the research of Neghina et al. (2017), focus on explaining the lack of found relationships may also be found in the meaning of personality traits. No agreement was found in previous literature about the exact meaning of the five personality traits (Digman, 1990). Therefore, the expected eligible relationships were based on only several characteristics of the five personality traits. For instance, when explaining the expected positive relationship between agreeableness and ethical motives, this research focused on the characteristics: ‘being honest’ and ‘acting moral’ of consumers who score high on agreeableness (Goldberg, 1990). However, not all characteristics of the trait ‘agreeableness’ were taken into account. This might therefore explain why consumers scoring high on agreeableness do not have ethical motives to co-create. Namely, people scoring high on agreeableness also have the tendency to be less angry to others who exhibit violating behavior, than people scoring low on agreeableness (Carver &

Conner-Smith, 2009). Consumers that think ethical motives are important will probably not tolerate violating behavior since they expect moral behavior (Neghina et al. 2017). In short, some characteristics of personality traits, which have not been stressed in this research, might explain the not found relationship between personality traits and consumers' motives.

Additionally, an explanation for not finding significant relations between personality traits and consumers' motives of willingness to co-create could be due to the difference between the actual behavior and the expected behavior of consumers. Personality traits are characteristics that determine the behavior of individuals (Mount et al., 2005), whereas motives are not the actual behaviors of consumers, but expectations (Neghina et al. 2017). Therefore, it could be possible that personality traits only influence consumers' motives when consumers actually intent to co-create with the company.

Finally, it might be possible that personality traits do not influence consumers' motives directly, but indirectly by means of other variables that function as a mediator or moderator in the relationship. Perception of previous experiences could be such a variable. Consumers' motives are influenced by their perception of previous experiences (Neghina et al., 2017; Wigfield & Eccles, 2000). Besides, it might be possible that personality traits have an effect on perception of previous experiences. The quality of a co-creation experience is influenced by involvement of the consumer, which is affected by one's unique experience creation and can vary per person (Prahalad & Ramaswamy, 2004). Consumers' involvement and experience creation could be affected by individual's personality traits because personality traits determine the behavior of individuals (Mount et al., 2005). Therefore, it might be reasonable to expect that perception of previous experiences have been affected by personality traits. As a result, previous experience with co-creation could exist as a mediator or moderator in the relationship of personality traits with co-creation and consumers' motives of co-creation.

Table 9: Summary of results

Hypothesis	Result
1. There is a positive relationship between extraversion and the relating motives.	Rejected
2. There is a positive relationship between extraversion and the developmental motives.	Rejected
3. There is a positive relationship between agreeableness and the individualizing motives.	<i>Not tested</i>
4. There is a positive relationship between agreeableness and the relating motives.	Rejected
5. There is a positive relationship between agreeableness and the concerted motives.	<i>Not tested</i>
6. There is a positive relationship between agreeableness and the ethical motives.	Rejected
7. There is a positive relationship between consciousness and the ethical motives.	Rejected
8. There is a positive relationship between emotional stability and the empowering.	<i>Not tested</i>
9. There is a positive relationship between culture and the developmental motives.	Rejected

5.2 Theoretical and practical implications

The findings of this research contribute to the existing literature base of co-creation. While previous research already investigated what different motives consumers have for co-creation in different service contexts (Neghina et al., 2017), no attention has been paid to individual differences based on personality. Therefore, this research investigates personality traits in relationship to co-creation. Contrary to the expectations, no relationship between consumers' motives and personality traits was found in this research. However, additional analyses show there may be some differences between gender, age groups and education groups in this relationship, which should be further explored.

Nevertheless, this research explains that marketing managers should not focus on (different) personality traits when interested in motivating consumers to co-create. Marketing

managers could better focus on other aspects that do have an effect on consumers' motives to co-create (like service context (Neghina et al., 2017)).

Additionally, this research concludes that four instead of six motives are important for co-creation and therefore questions the already stated motives of Neghina et al. (2017). Therefore, attention should be paid to the four motives, in order to clarify what truly motivates consumers to co-create. However, according to the results of this research managers should realize consumers have four, instead of six motives to co-create.

Furthermore, an implication of this research is that the attitude of consumers towards participation of the specific co-creation process positively affects influencing, relating, and developmental motives. Therefore, as stated by Neghina et al. (2017) the co-creation process itself seems to be an important factor, which influences the motives of consumers. Besides that, it seems important to focus especially on influencing, relating, and developmental motives. For instance, managers that try to motivate consumers by having influence, developing resources, and by creating emotional and social connection, during the co-creation process, should focus on improving consumers' attitude towards participation of the co-creation. In other words, they should create a positive attitude of participation, since this positively influences relating, developmental and influencing motives of consumers. To create this positive attitude, managers could focus on creating value congruence, meaning that organizational values should match with consumers' values. This will result in more favorable attitudes since people tend to be more attracted to and trusting towards others when they find similarities (Zhang & Bloemer, 2008). Managers can create value congruence by identifying consumers' values and create and communicate strong company values (Zhang & Bloemer, 2008).

Finally, differences between gender suggest that men score higher on influencing motives than women. This could be the result of a higher perceived importance of status for men than women. Whereas women tend to show more agreement, men are generally more interested in giving opinions and directions, and thereby influence the interaction, in order to receive a higher status (Carli, 1989). Therefore, managers could adapt their strategy towards gender by creating strategies to motivate specifically for men and women.

5.3 Limitations and future research

This research has several limitations. First, the distribution of the demographic factors in the study population may have had some influence on the results. To begin with, the sample of

this research consisted of 26.4 percent males and 73.6 percent women. Since personality traits differ between gender (Soto et al., 2011), the underrepresentation of men in this study might influence the generalizability of the results. The fact that most of the respondents were higher educated (76.2 percent), can also negatively affect the generalizability of this research. Critical thinking and reflective thinking are important aspects of higher education, and teaching for critical thinking has become an important goal for education (Ghanizadeh, 2017). Therefore, it is possible that higher educated people are more critical towards co-creation than people with a lower education. Lastly, age was not distributed equally in the sample (52.8 percent of the sample was younger than 25 years), which might also influence the generalizability of the results since personality traits differ among age groups (Soto, et al., 2011).

However, these limitations may not have strongly affected the general results of the relationship of personality traits and consumers' motives. This because, the additional analyses showed that there were not many differences, between gender, age groups and level of education, in the relationship of personality traits and consumers' motives. Still, an effect does exist; therefore, future research could focus on a more equally distributed sample, which is better representative of the Dutch consumer and therefore more generalizable. Furthermore, it could be interesting for future research to further investigate possible differences between gender, age and level of education in the personality traits that predict consumers' motives of willingness to co-creation with a company.

Second, the items used in this research did not measure the constructs individualizing, empowering and concerted motives well. Therefore, this research lacks in investigating all presented expected relationships. Future research could examine consumers' motives of willingness to co-create with a new scale, or could adapt the original scale of Neghina et al. (2017). Additionally, since this research found four instead of six motives, future research could also investigate consumers' motives and explore whether the motives explained by Neghina et al. (2017) are accurate or whether other motives might be relevant. Besides that, it could be interesting to take into account the effect of demographic factors (such as gender) on the (interpretation of) items and motives.

Third, the generalizability of the results is reduced because of the fact that the questionnaire was written in Dutch and conducted in the Netherlands. Therefore, only Dutch-speaking people could fill in the questionnaire. Cross-cultural differences influence individuals' personality traits (Schmitt, Realo, Voracek, & Allik, 2008). For future research, it

could be interesting to do cross-cultural research that explores whether culture and nationality influence the relationship between personality traits and consumers' motives to co-create.

Fourth, the original scales used for this research were written in English and have been translated into Dutch. Even though the Dutch translated questionnaire has been translated back into English and these questionnaires have been compared, this could result in some biases. Literal translations do sometimes not have the exact same meaning in different languages (Baumgartner & Weijters, 2017). It could be interesting for future research to create a questionnaire that is developed simultaneously in several languages and therefore prevents translation biases (Baumgartner & Weijters, 2017).

Furthermore, despite removing cross-loaders and low-loaders, and improving Cronbach's alpha, the explained variances for the used data stayed low for the personality traits extraversion, agreeableness and consciousness. As a result, the validity of these constructs was limited. These constructs did not seem to be unidimensional and therefore, the measured items could also measure another construct (Field, 2013). Besides that, not all constructs had divergent validity since one cross loader existed. For future research, it is important to use constructs that have convergence and divergent validity. Additionally, future research could for instance take into account the effect of demographic variables on the scales.

Additionally, this research only explored the relationship between personality traits and consumers' motives to co-create. Future research should also investigate other individual differences, such as demographics and psychographics. In addition, future research should examine other variables, like a moderator or mediator; such as perception of previous experiences, since that might influence this relationship between personality traits and consumers' motives as well.

Lastly, this research had an exploratory set-up, which means that the investigated relationship has not been researched yet. It is interesting to further investigate this relationship in different contexts, like Neghina et al. (2017). Their research concluded that consumers have different motives per service context. Besides, this research concluded that attitude towards participation of the co-creation situation seems to be an important aspect for consumers' motives. Consumers' attitude towards participation of the co-creation process positively influences consumers' influencing, relating and developing motives. The used co-creation process in this research, an online platform of Adidas, could for instance have caused a more negative attitude of elderly people. Elderly people have more difficulties with using technologies, like computers (Lee, Chen, Hewitt, 2011). Therefore, a different co-creation

process could have resulted in different motives of consumers. Additionally, it is also interesting to further investigate the relationship of consumers' attitude towards the participation of the co-creation process and motives, next to possible aspects that might influence these attitudes.

Overall, this research could be considered as a starting point for investigating possible associations between personality traits and consumers' motives to co-create.

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Appendices

Appendix 1 – Questionnaire

Beste respondent,

Alvast hartelijk bedankt voor uw deelname aan dit onderzoek. Mijn naam is Esmee Zeekaf en ik ben masterstudente Marketing aan de Radboud Universiteit Nijmegen. In het kader van mijn master doe ik onderzoek naar wat klanten vinden van uitnodigingen van merken om deel te nemen aan een online platform.

Het invullen van de vragenlijst kost u slechts 10 minuten. Uw gegevens zullen vertrouwelijk behandeld worden. Dit betekent dat de antwoorden niet tot individuele personen kunnen worden herleid en de gegevens alleen voor dit onderzoek worden gebruikt. Deelname aan dit onderzoek is geheel vrijwillig; u kunt de vragenlijst op ieder moment verlaten. Als u vragen heeft over dit onderzoek kunt u contact met mij opnemen via email: esmee.zeekaf@student.ru.nl

Nogmaals, hartelijk bedankt voor uw deelname aan dit onderzoek!

Esmee Zeekaf

Als eerste volgen een aantal vragen over uw persoonlijkheid.

Ik zie mijzelf als iemand die:

	Helemaal mee oneens	Mee oneens	Niet mee oneens, niet mee eens	Mee eens	Helemaal mee eens
1. Spraakzaam is	O	O	O	O	O
2. De neiging heeft om fouten bij anderen neer te leggen	O	O	O	O	O
3. Grondig te werk gaat	O	O	O	O	O
4. Depressief is	O	O	O	O	O
5. Origineel is, met nieuwe ideeën komt	O	O	O	O	O
6. Terughoudend is	O	O	O	O	O
7. Behulpzaam en niet egoïstisch is	O	O	O	O	O
8. Soms wat onbezorgd kan zijn	O	O	O	O	O
9. Ontspannen is, goed met stress kan omgaan	O	O	O	O	O
10. Nieuwsgierig is naar veel nieuwe dingen	O	O	O	O	O
11. Vol met energie zit	O	O	O	O	O
12. Ruzies begint met anderen	O	O	O	O	O
13. Een betrouwbare	O	O	O	O	O

werker is

14. Gespannen kan

zijn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

15. Vindingrijk

(vernuftig), een diepe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
------------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

denker is

16. Veel enthousiasme	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

opwekt bij anderen

17. Vergevingsgezind	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

is

18. De neiging heeft	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

om chaotisch te zijn

19. Zich veel zorgen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

maakt

20. Die een actieve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
---------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

verbeeldingskracht,

fantasie heeft

21. Die de neiging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
--------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

heeft om stil te zijn

22. Mensen vertrouwt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

23. De neiging heeft

lui te zijn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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24. Emotioneel stabiel,

niet makkelijk van	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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streek te maken is

25. Inventief is	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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26. Een assertieve (dit

houdt in: voor uzelf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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opkomen)

persoonlijkheid heeft

27. Koud en	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

afstandelijk kan zijn

28. Volhardend is tot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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de taak klaar is

29. Humeurig kan zijn ☐ ☐ ☐ ☐ ☐

30. Artistieke en
esthetische/kunstzinnig ☐ ☐ ☐ ☐ ☐

ervaringen waardeert
31. Soms verlegen,
geremd is ☐ ☐ ☐ ☐ ☐

32. Attent en aardig is
tegen bijna iedereen ☐ ☐ ☐ ☐ ☐

33. Dingen efficiënt
doet ☐ ☐ ☐ ☐ ☐

34. Kalm blijft in
gespannen situaties ☐ ☐ ☐ ☐ ☐

35. De voorkeur geeft
aan werk dat routine is ☐ ☐ ☐ ☐ ☐

36. Vriendelijk, sociaal
is ☐ ☐ ☐ ☐ ☐

37. Soms grof is naar
anderen ☐ ☐ ☐ ☐ ☐

38. Plannen maakt en
ze opvolgt ☐ ☐ ☐ ☐ ☐

39. Gemakkelijk
nervus wordt ☐ ☐ ☐ ☐ ☐

40. Het leuk vindt om
te reflecteren, met
ideeën speelt ☐ ☐ ☐ ☐ ☐

41. Weinig artistieke
interesses heeft ☐ ☐ ☐ ☐ ☐

42. Graag samenwerkt
met anderen ☐ ☐ ☐ ☐ ☐

43. Gemakkelijk
afgeleid is ☐ ☐ ☐ ☐ ☐

44. Die bedreven is in ☐ ☐ ☐ ☐ ☐

kunst, muziek of
literatuur

Deel 2:

Lees de tekst hieronder aandachtig door en stelt u zich de volgende situatie voor:

Adidas is bezig met het ontwerpen van de sneakers voor de lente- en zomercollectie 2019 en heeft een uitnodiging verstuurd om input te leveren aan de slogan voor deze collectie. U heeft de unieke kans om bij te dragen aan deze slogan. Adidas heeft een **virtueel social media platform** gecreëerd waarop u op verschillende manieren kunt bijdragen aan het bedenken van een nieuw slogan. U kunt hier niet alleen uw eigen slogan voor de nieuwe schoenencollectie uploaden, maar u kunt ook feedback geven op de ideeën van andere kandidaten en u heeft ook de mogelijkheid om te stemmen op de slogan die u de beste vindt. Via dit **platform** kunt u dus interacteren met Adidas en andere consumenten en samen een nieuwe slogan verzinnen en kiezen. Adidas zal de ‘beste’ slogan wereldwijd gaan gebruiken voor de lente- en zomercollectie 2019.

Hieronder ziet u een afbeelding waardoor u een indruk krijgt van de mogelijke collectie:



De onderstaande vragen die u nu gaat beantwoorden gaan over het hier bovengenoemde **Platform van Adidas**.

De onderstaande vragen die u nu gaat beantwoorden gaan over het hier bovengenoemde **Platform van Adidas**.

In welke mate bent u het eens met onderstaande stellingen?

	Helemaal mee oneens	Mee oneens	Niet mee oneens, niet mee eens	Mee eens	Helemaal mee eens
1. Ik ben bereid deel te nemen aan dit Platform van Adidas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Ik ben bereid tijd te investeren in dit Platform van Adidas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Ik ben bereid energie te steken in dit Platform van Adidas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Stelt u zich nu voor dat u input levert aan de slogan van Adidas sneakers voor de lente- en zomercollectie 2019.

In welke mate bent u het eens met onderstaande stellingen?

Als ik de uitnodiging van Adidas om deel te nemen aan het platform aanneem, dan

	Helemaal mee oneens	Mee oneens	Niet mee oneens, niet mee eens	Mee eens	Helemaal mee eens
1. Wil ik mijn eigen interesses en voorkeuren kenbaar te maken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Wil ik mijn eigen kennis en vaardigheden kunnen gebruiken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Wil ik dat dit platform aansluit op mijn behoeften	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Wil ik mijn bestaande netwerk uit kunnen bereiden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Wil ik deel uit kunnen maken van een	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

invloedrijke groep

6. Wil ik mijn sociale
status binnen mijn
netwerk kunnen
versterken

☐ ☐ ☐ ☐ ☐

7. Wil ik controle uit
kunnen oefenen over
dit platform

☐ ☐ ☐ ☐ ☐

8. Wil ik kunnen
bepalen in welke mate
ik word betrokken bij
dit platform

☐ ☐ ☐ ☐ ☐

9. Wil ik invloed
kunnen hebben op de
uiteindelijke uitkomst

☐ ☐ ☐ ☐ ☐

10. Wil ik eerlijk en
rechtvaardig behandeld
worden

☐ ☐ ☐ ☐ ☐

11. Wil ik ervoor
kunnen zorgen dat
ethische richtlijnen
worden nageleefd

☐ ☐ ☐ ☐ ☐

12. Wil ik ervoor
kunnen zorgen dat
transparantie wordt
nageleefd op het

☐ ☐ ☐ ☐ ☐

platform

13. Wil ik nieuwe

kennis en vaardigheden

☐
☐
☐
☐
☐

kunnen ontwikkelen

14. Wil ik kennis op

kunnen doen over

☐
☐
☐
☐
☐

zaken die gerelateerd

zijn aan dit platform

15. Wil ik mijn

nieuwsgierigheid

kunnen bevredigen

☐
☐
☐
☐
☐

door nieuwe dingen te

leren op dit platform

16. Wil ik het gevoel

hebben dat andere

deelnemers van dit

platform (Adidas en

☐
☐
☐
☐
☐

consumenten) mijn

inbreng kunnen

waarderen

17. Wil ik het gevoel

hebben dit platform

goed georganiseerd is

☐
☐
☐
☐
☐

18. Wil ik in staat zijn

om gemakkelijk samen

te kunnen werken met

☐
☐
☐
☐
☐

de andere deelnemers

(consumenten en

Adidas)

Geef aan welke antwoord categorie uw antwoord het beste weergeeft

	Erg negatief	Negatief	Neutraal	Positief	Erg positief
1. Mijn algemene houding tegenover het merk Adidas is	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Geef aan welke antwoord categorie uw antwoord het beste weergeeft

	Erg ongeïnteresseer d	Ongeïnteresseer d	Neutraa l	Geïnteresseer d	Erg geïnteresseer d
2. In welke mate bent u geïnteresseer d in sportmode?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Geef aan welke antwoord categorie uw antwoord het beste weergeeft

	Erg negatief	Negatief	Neutraal	Positief	Erg positief
3. Wat is u algemene houding tegenover deelname aan een platform van een merk in het algemeen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Heeft u al eens eerder meegedaan aan een interactie met een merk zoals omschreven?

- ☐ 1. Ja
- ☐ 2. Nee

Deel 3:

Ter afsluiting volgen er nog enkele algemene vragen.

1. Bent u een man of een vrouw?

- ☐ 1. Man
- ☐ 2. Vrouw

2. Wat is uw leeftijd?

- ☐ 1. Jonger dan 18
- ☐ 2. 18 – 25 jaar
- ☐ 3. 26 – 35 jaar
- ☐ 4. 36 – 45 jaar
- ☐ 5. 46 – 55 jaar
- ☐ 6. 56 – 65 jaar
- ☐ 7. Ouder dan 65 jaar

3. Wat is uw hoogst voltooide opleiding?

- ☐ 1. Geen onderwijs voltooid
- ☐ 2. Basisschool
- ☐ 3. Lager beroepsonderwijs (bijv. VMBO basis, VMBO-kader, LTS, LEAO, huishoudschool)
- ☐ 4. Middelbaar algemeen onderwijs (bijv. VMBO-t, MAVO, MULO, ULO, 3-jaars HBS)
- ☐ 5. Middelbaar beroeps onderwijs (bijv. MTS, MEAO, praktijk diploma boekhouden, MBO)
- ☐ 6. Voortgezet algemeen onderwijs (bijv. HBS, MMS, gymnasium, HAVO, VWO)
- ☐ 7. Hoger beroepsonderwijs (bijv. HBO, HTS, HEAO, Sociale Academie)
- ☐ 8. Academisch onderwijs (bijv. universiteit, post-HBO)
- ☐ 9. Postacademisch (bijv. notariaat, doctorstitel, artsexamen)
- ☐ 10. Anders, namelijk....

Heeft u nog vragen of opmerkingen met betrekking tot dit onderzoek, dan kunt u deze hieronder aangeven of een email sturen naar: esmee.zeekaf@student.ru.nl

Als u benieuwd bent naar de resultaten van dit onderzoek kunt u hieronder uw e-mailadres achter laten. U zult een email met de resultaten ontvangen wanneer dit onderzoek is afgerond. Uw e-mailadres wordt losgekoppeld van uw antwoorden en uitsluitend gebruikt om u te informeren over de uitkomsten van deze vragenlijst.

Dit is het einde van de vragenlijst. Bedankt voor uw deelname!

Esmee Zeekaf

Appendix 2 – SPSS output

Appendix 2.1 - Factor analysis independent variable personality traits

Appendix 2.1.1 Rotated factor matrix variable personality traits before removing an item

Rotated Factor Matrix ^a					
	1	2	Factor 3	4	5
Q1_9	,795				
Q1_19r2.0	,772				
Q1_14r2.0	,730				
Q1_34	,703				
Q1_24	,672				
Q1_39r2.0	,645		,312		
Q1_4r2.0	,504		,285		
Q1_8r	-,428				
Q1_41r		,704			
Q1_30		,655			
Q1_20		,634			
Q1_44		,626			
Q1_40		,601			
Q1_15		,562			
Q1_25		,543	,254		
Q1_5		,501			
Q1_10		,407			
Q1_35r		,319			
Q1_6r	,273		,732		
Q1_21r			,699		
Q1_31r			,690		
Q1_16			,502		
Q1_1			,440		
Q1_11			,399		
Q1_26	,284		,354	,266	-,274
Q1_38				,605	
Q1_18r				,601	
Q1_43r				,553	
Q1_28				,511	
Q1_33				,508	
Q1_3				,497	
Q1_23r				,461	,281
Q1_13				,308	
Q1_27r			,308		,549
Q1_37r					,549
Q1_32					,490
Q1_7					,459
Q1_12r					,440
Q1_29r2.0	,331				,428
Q1_22					,411
Q1_42					,391
Q1_17					,377
Q1_36					,366
Q1_2r					,317

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Appendix 2.1.2 Rotated Factor matrix variable personality traits after removing item Q1_29r2.0

Rotated Factor Matrix ^a					
	Factor				
	1	2	3	4	5
Q1_9	,801				
Q1_19r2.0	,774				
Q1_34	,711				
Q1_14r2.0	,708				
Q1_24	,672				
Q1_39r2.0	,645		,314		
Q1_4r2.0	,504		,287		
Q1_8r	-,436				
Q1_41r		,712			
Q1_30		,657			
Q1_20		,633			
Q1_44		,627			
Q1_40		,597			
Q1_15		,562			
Q1_25		,543	,256		
Q1_5		,499			
Q1_10		,402			
Q1_35r		,316			
Q1_6r	,269		,733		
Q1_21r			,699		
Q1_31r			,691		
Q1_16			,506		
Q1_1			,441		
Q1_11			,401		
Q1_26	,285		,352	,260	-,268
Q1_38				,608	
Q1_18r				,606	
Q1_43r				,560	
Q1_28				,507	
Q1_33				,501	
Q1_3				,490	
Q1_23r				,471	
Q1_13				,304	
Q1_27r			,311		,534
Q1_32					,510
Q1_37r					,507
Q1_7					,476
Q1_12r					,438
Q1_22					,437
Q1_42					,411
Q1_36					,395
Q1_17					,392
Q1_2r					,294

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 6 iterations.

Appendix 2.1.3 Rotated Factor matrix variable personality traits after removing items Q1_29r2.0 and Q1_36

Rotated Factor Matrixa					
	Factor				
	1	2	3	4	5
Q1_9	,805				
Q1_19r2.0	,764				
Q1_34	,725				
Q1_14r2.0	,694				
Q1_24	,678				
Q1_39r2.0	,633		,332		
Q1_4r2.0	,497		,299		
Q1_8r	-,439				
Q1_41r		,706			
Q1_30		,654			
Q1_20		,633			
Q1_44		,624			
Q1_40		,600			
Q1_15		,565			
Q1_25		,545	,252		
Q1_5		,504			
Q1_10		,407			
Q1_35r		,317			
Q1_6r	,260		,740		
Q1_21r			,709		
Q1_31r			,699		
Q1_16			,486		
Q1_1			,412		
Q1_11		,254	,398		
Q1_26	,295		,334	,254	-,298
Q1_38				,610	
Q1_18r				,607	
Q1_43r				,571	
Q1_28				,504	
Q1_33				,495	
Q1_23r				,488	,266
Q1_3				,484	
Q1_13				,298	
Q1_37r					,574
Q1_27r			,336		,530
Q1_32					,453
Q1_7					,437
Q1_12r					,427
Q1_22					,417
Q1_42					,396
Q1_17					,378
Q1_2r					,306

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 6 iterations.

Appendix 2.1.4 Rotated Factor matrix variable personality traits after removing items Q1_29r2.0, Q1_36 and Q1_26

Rotated Factor Matrixa					
	Factor				
	1	2	3	4	5
Q1_9	,806				
Q1_19r2.0	,763				
Q1_34	,722				
Q1_14r2.0	,698				
Q1_24	,677				
Q1_39r2.0	,634		,331		
Q1_4r2.0	,496		,294		
Q1_8r	-,443				
Q1_41r		,707			
Q1_30		,653			
Q1_20		,634			
Q1_44		,623			
Q1_40		,597			
Q1_15		,566			
Q1_25		,547	,254		
Q1_5		,504			
Q1_10		,407			
Q1_35r		,318			
Q1_6r	,262		,733		
Q1_21r			,715		
Q1_31r			,703		
Q1_16			,484		
Q1_11		,255	,399		
Q1_1			,398		
Q1_38				,615	
Q1_18r				,611	
Q1_43r				,578	
Q1_28				,511	
Q1_23r				,494	,254
Q1_3				,482	
Q1_33				,479	
Q1_13				,292	
Q1_37r					,556
Q1_27r			,341		,528
Q1_32					,472
Q1_7					,444
Q1_12r					,433
Q1_22					,417
Q1_42					,394
Q1_17					,392
Q1_2r					,310

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 6 iterations.

Appendix 2.1.5 Rotated Factor matrix variable personality traits after removing items Q1_29r2.0, Q1_36, Q1_26 and Q1_8r

Rotated Factor Matrix ^a					
	Factor				
	1	2	3	4	5
Q1_9	,812				
Q1_19r2.0	,749				
Q1_34	,724				
Q1_14r2.0	,701				
Q1_24	,681				
Q1_39r2.0	,643		,332		
Q1_4r2.0	,503		,296		
Q1_41r		,703			
Q1_30		,653			
Q1_20		,635			
Q1_44		,622			
Q1_40		,599			
Q1_15		,564			
Q1_25		,547	,254		
Q1_5		,504			
Q1_10		,412			
Q1_35r		,318			
Q1_6r	,264		,734		
Q1_21r			,715		
Q1_31r			,702		
Q1_16			,486		
Q1_11		,259	,402		
Q1_1			,399		
Q1_38				,619	
Q1_18r				,607	
Q1_43r				,577	
Q1_28				,517	
Q1_3				,492	
Q1_23r				,485	,252
Q1_33				,483	
Q1_13				,285	
Q1_37r					,553
Q1_27r			,337		,528
Q1_32					,475
Q1_7					,444
Q1_12r					,432
Q1_22					,420
Q1_42					,394
Q1_17					,392
Q1_2r					,306

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 6 iterations.

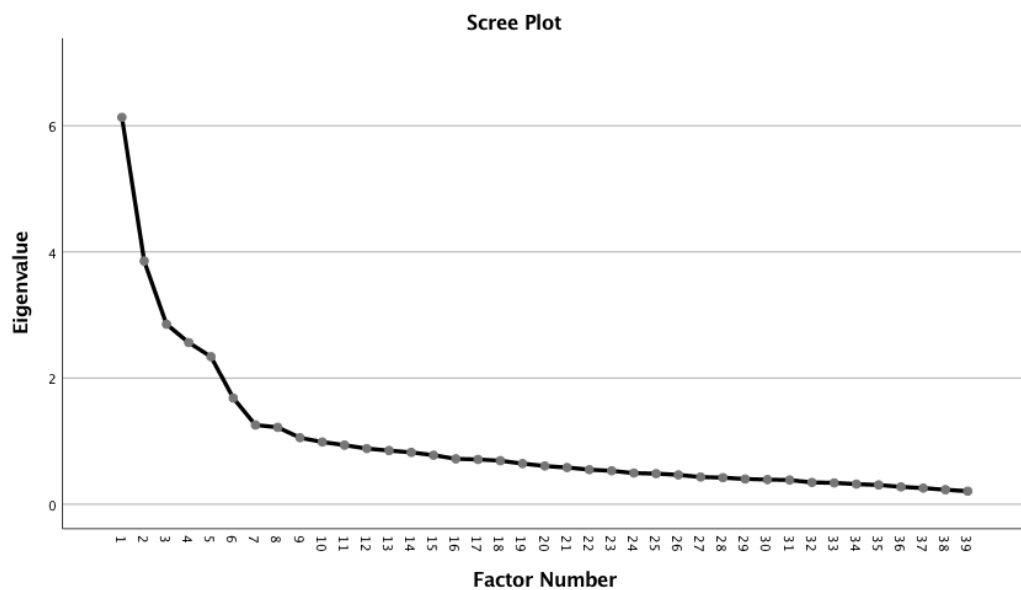
Appendix 2.1.6 Factor analysis variable personality traits after removing items Q1_29r2.0, Q1_36, Q1_26, Q1_8r and Q1_13

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,810
Bartlett's Test of Sphericity	Approx. Chi-Square	3611,627
	df	741
	Sig.	0
Communalities		
	Initial	Extraction
Q1_1	,345	,190
Q1_6r	,578	,618
Q1_11	,403	,294
Q1_16	,401	,333
Q1_21r	,517	,535
Q1_31r	,570	,557
Q1_2r	,259	,152
Q1_7	,321	,239
Q1_12r	,278	,197
Q1_17	,280	,217
Q1_22	,296	,199
Q1_27r	,370	,402
Q1_32	,326	,234
Q1_37r	,435	,361
Q1_42	,308	,219
Q1_3	,335	,268
Q1_18r	,458	,460
Q1_23r	,465	,376
Q1_28	,341	,242
Q1_33	,391	,337
Q1_38	,411	,429
Q1_43r	,434	,393
Q1_4r2.0	,423	,385
Q1_9	,636	,665
Q1_14r2.0	,558	,516
Q1_19r2.0	,618	,608
Q1_24	,503	,499
Q1_34	,588	,557
Q1_39r2.0	,617	,564
Q1_5	,418	,344
Q1_10	,379	,217
Q1_15	,418	,373
Q1_20	,507	,448
Q1_25	,478	,403
Q1_30	,571	,461
Q1_35r	,266	,194
Q1_40	,423	,391
Q1_41r	,612	,519
Q1_44	,458	,400

Extraction Method: Principal Axis Factoring.

Factor	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,133	15,725	15,725	5,595	14,347	14,347	3,797	9,736	9,736
2	3,855	9,886	25,61	3,289	8,433	22,78	3,53	9,051	18,787
3	2,853	7,317	32,927	2,202	5,646	28,426	2,933	7,521	26,308
4	2,564	6,573	39,5	1,953	5,008	33,434	2,426	6,221	32,53
5	2,339	5,997	45,497	1,757	4,504	37,937	2,109	5,408	37,937
6	1,684	4,318	49,815						
7	1,256	3,22	53,035						
8	1,22	3,127	56,162						
9	1,055	2,705	58,867						
10	,987	2,53	61,397						
11	,937	2,402	63,799						
12	,882	2,262	66,061						
13	,851	2,183	68,244						
14	,823	2,109	70,353						
15	,777	1,993	72,346						
16	,720	1,845	74,191						
17	,710	1,821	76,012						
18	,691	1,771	77,784						
19	,644	1,652	79,436						
20	,606	1,554	80,99						
21	,582	1,492	82,483						
22	,549	1,407	83,89						
23	,531	1,361	85,25						
24	,494	1,266	86,517						
25	,485	1,242	87,759						
26	,466	1,195	88,954						
27	,432	1,108	90,062						
28	,422	1,082	91,144						
29	,400	1,026	92,17						
30	,391	1,003	93,172						
31	,383	,983	94,156						
32	,346	,888	95,044						
33	,339	,869	95,913						
34	,319	,818	96,731						
35	,306	,784	97,515						
36	,275	,706	98,221						
37	,256	,657	98,878						
38	,231	,591	99,469						
39	,207	,531	100						

Extraction Method: Principal Axis Factoring.



Factor Matrixa					
	Factor				
	1	2	3	4	5
Q1_39r2.0	,685	,285			
Q1_19r2.0	,606	,366		-,259	
Q1_6r	,606			,297	-,340
Q1_14r2.0	,561	,261		-,299	
Q1_9	,557	,341		-,400	
Q1_31r	,555			,399	-,252
Q1_24	,553	,334			
Q1_34	,551	,257		-,265	,305
Q1_25	,549				
Q1_4r2.0	,524	,327			
Q1_5	,486	-,299			
Q1_21r	,465			,377	-,357
Q1_11	,462				
Q1_40	,453	-,366			
Q1_16	,410				-,325
Q1_35r	,405				
Q1_10	,384				
Q1_1	,313			,262	
Q1_18r		,566	,261		
Q1_20	,355	-,537			
Q1_41r	,369	-,513	,268		
Q1_30	,388	-,487			
Q1_43r		,449	,385		
Q1_33		,399			,380
Q1_44	,344	-,389	,264		
Q1_37r			,473	-,311	
Q1_23r		,328	,423		
Q1_7			,419		
Q1_32			,378	-,254	
Q1_12r			,361		
Q1_3			,319		,281
Q1_2r					
Q1_38		,393	,279	,429	
Q1_17				-,353	
Q1_28		,292		,298	
Q1_27r			,413		-,419
Q1_15		-,342			,392
Q1_42					-,331
Q1_22					-,306

Extraction Method: Principal Axis Factoring.

a 5 factors extracted. 5 iterations required.

Rotated Factor Matrix ^a					
	Factor				
	1	2	3	4	5
Q1_9	,810				
Q1_19r2.0	,750				
Q1_34	,725				
Q1_14r2.0	,702				
Q1_24	,683				
Q1_39r2.0	,646		,330		
Q1_4r2.0	,508		,293		
Q1_41r		,713			
Q1_30		,658			
Q1_20		,633			
Q1_44		,627			
Q1_40		,596			
Q1_15		,561			
Q1_25		,545	,256		
Q1_5		,498			
Q1_10		,403			
Q1_35r		,314			
Q1_6r	,264		,732		
Q1_21r			,710		
Q1_31r			,696		
Q1_16			,499		
Q1_1			,407		
Q1_11		,253	,406		
Q1_38				,630	
Q1_18r				,626	
Q1_43r				,587	
Q1_23r				,516	,255
Q1_28				,483	
Q1_33				,475	
Q1_3				,472	
Q1_37r					,552
Q1_27r			,332		,528
Q1_32					,475
Q1_7					,444
Q1_12r					,431
Q1_22					,419
Q1_42					,395
Q1_17					,391
Q1_2r					,306

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Factor Transformation Matrix					
Factor	1	2	3	4	5
1	,650	,521	,537	,010	,130
2	,471	-,669	,050	,568	,075
3	-,293	,314	-,134	,528	,720
4	-,440	,104	,542	,506	-,495
5	,275	,415	-,630	,377	-,462

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

Appendix 2.2 - Reliability analysis independent variable personality traits

Appendix 2.2.1 Reliability emotional stability

Reliability Statistics	
Cronbach's Alpha	N of Items
,867	8

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1_4r2.0	21,98	25,992	,535	,860
Q1_9	23	23,242	,712	,840
Q1_14r2.0	23,66	23,665	,700	,842
Q1_19r2.0	23,48	22,834	,714	,840
Q1_24	22,9	23,816	,651	,848
Q1_29r2.0	23,24	26,227	,378	,877
Q1_34	22,77	24,597	,625	,851
Q1_39r2.0	23,03	23,458	,655	,847

Appendix 2.2.2 Reliability culture

Reliability Statistics	
Cronbach's Alpha	N of Items
,826	10

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1_5	30,97	29,594	0,476	0,814
Q1_10	30,44	30,755	0,382	0,822
Q1_15	30,94	29,523	0,457	0,816
Q1_20	31,08	27,578	0,58	0,803
Q1_25	30,88	29,534	0,532	0,81
Q1_30	31,18	26,288	0,621	0,798
Q1_35r	30,94	30,038	0,329	0,829
Q1_40	30,88	28,41	0,562	0,806
Q1_41r	31,1	25,751	0,646	0,795
Q1_44	31,69	26,805	0,549	0,807

Appendix 2.2.3 Reliability extraversion

Reliability Statistics	
Cronbach's Alpha	N of Items
,769	8

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1_1	24,83	14,591	,458	,747
Q1_6r	25,23	13,481	,666	,707
Q1_11	24,98	15,481	,393	,757
Q1_16	24,96	15,411	,474	,744
Q1_21r	25,32	13,87	,568	,725
Q1_26	24,98	15,397	,380	,760
Q1_31r	25,63	13,476	,615	,715
Q1_36	24,32	17,819	,152	,784

Appendix 2.2.4 Reliability consciousness

Reliability Statistics	
Cronbach's Alpha	N of Items
,713	9

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1_3	28,41	16,796	,389	,688
Q1_8r	28,99	17,341	,173	,734
Q1_13	27,82	18,215	,227	,712
Q1_18r	29,02	14,409	,522	,658
Q1_23r	28,72	15,461	,403	,686
Q1_28	28,45	16,771	,429	,683
Q1_33	28,52	17,016	,347	,695
Q1_38	28,58	15,926	,521	,666
Q1_43r	29,37	14,93	,524	,659

Appendix 2.2.5 Reliability agreeableness

Reliability Statistics	
Cronbach's Alpha	N of Items
,677	9

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1_2r	31,77	12,579	,261	,669
Q1_7	31,55	12,127	,392	,643
Q1_12r	31,14	12,411	,381	,646
Q1_17	31,76	12,561	,314	,658
Q1_22	31,83	12,275	,346	,652
Q1_27r	31,82	11,093	,400	,640
Q1_32	31,5	12,334	,405	,642
Q1_37r	31,87	10,964	,389	,644
Q1_42	31,7	12,234	,312	,659

Appendix 2.3 - Factor analysis dependent variable consumers' motives

Appendix 2.3.1 Pattern matrix variable consumers' motives before removing an item

Pattern Matrix ^a				
	Factor			
	1	2	3	4
Q2B_16	,671			
Q2B_9	,667			
Q2B_2	,625			
Q2B_3	,605			
Q2B_8	,593			
Q2B_1	,565			
Q2B_17	,527		,295	
Q2B_10	,446		,402	
Q2B_7	,427	-,415		
Q2B_18	,373			-,320
Q2B_5		-,828		
Q2B_6		-,815		
Q2B_4		-,601		
Q2B_12			,790	
Q2B_11			,714	
Q2B_14				-,765
Q2B_15				-,759
Q2B_13				-,744

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a Rotation converged in 7 iterations.

Appendix 2.3.2 Pattern matrix variable consumers' motives after removing items Q2B_18 and Q2B_17

Pattern Matrix ^a				
	Factor			
	1	2	3	4
Q2B_9	,697			
Q2B_16	,636			
Q2B_2	,623			
Q2B_8	,620			
Q2B_3	,591			
Q2B_1	,578			
Q2B_7	,450	-,382		
Q2B_10	,409		,376	
Q2B_6		-,851		
Q2B_5		-,818		
Q2B_4		-,611		
Q2B_12			,778	
Q2B_11			,754	
Q2B_14				-,771
Q2B_15				-,742
Q2B_13				-,738

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a Rotation converged in 6 iterations.

Appendix 2.3.3 Factor analysis variable consumers' motives after removing items Q2B_18, Q2B_17 and Q2B_7

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,854
Bartlett's Test of Sphericity	Approx. Chi-Square	1619,03
	df	105
	Sig.	0

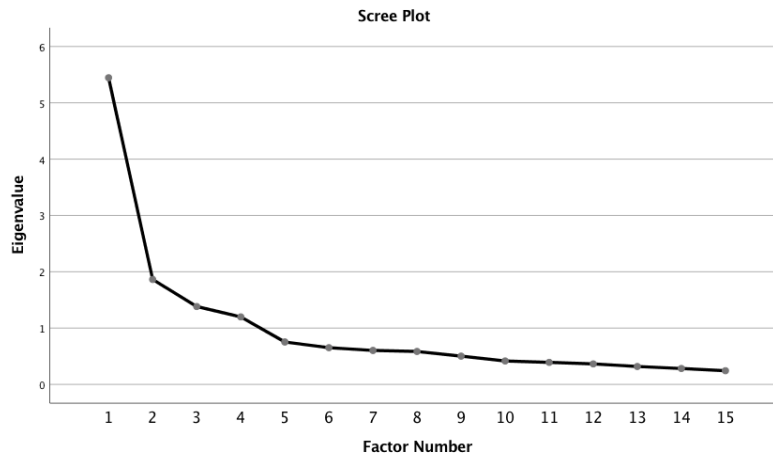
Communalities		
	Initial	Extraction
Q2B_1	,442	,464
Q2B_2	,497	,510
Q2B_3	,296	,341
Q2B_4	,491	,551
Q2B_5	,583	,705
Q2B_6	,598	,744
Q2B_8	,355	,364
Q2B_9	,493	,548
Q2B_10	,338	,393
Q2B_11	,418	,558
Q2B_12	,458	,678
Q2B_13	,514	,589
Q2B_14	,513	,616
Q2B_15	,569	,652
Q2B_16	,481	,513

Extraction Method: Principal Axis Factoring.

Factor	Initial Eigenvalues			Total Variance Explained			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5,445	36,302	36,302	4,999	33,326	33,326	4,999	33,326	33,326	4,004	26,693	26,693
2	1,864	12,426	48,728	1,46	9,736	43,062	1,46	9,736	43,062	2,707	17,875	44,568
3	1,383	9,22	57,948	,951	6,341	49,403	,951	6,341	49,403	2,12	14,017	58,585
4	1,198	7,99	65,938	,815	5,436	54,838	,815	5,436	54,838	3,485	23,002	81,587
5	,753	5,021	70,958									
6	,652	4,348	75,306									
7	,603	4,018	79,324									
8	,584	3,897	83,221									
9	,502	3,347	86,568									
10	,416	2,774	89,342									
11	,391	2,608	91,95									
12	,364	2,429	94,379									
13	,318	2,121	96,5									
14	,282	1,879	98,379									
15	,243	1,621	100									

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.



Factor Matrixa

	Factor			
	1	2	3	4
Q2B_15	,679			-,425
Q2B_9	,670		-,255	
Q2B_16	,655		-,255	
Q2B_2	,647		-,267	
Q2B_14	,637			-,431
Q2B_13	,637			-,412
Q2B_1	,623			
Q2B_5	,569	-,544		,290
Q2B_4	,559	-,471		
Q2B_3	,507			
Q2B_8	,502	,273		
Q2B_6	,533	-,637		
Q2B_10	,425	,429		
Q2B_12	,501	,271	,577	
Q2B_11	,425	,271	,499	

Extraction Method: Principal Axis Factoring.
a 4 factors extracted. 16 iterations required.

Structure Matrix				
	Factor			
	1	2	3	4
Q2B_9	,735	-,278	,269	-,441
Q2B_16	,705	-,293		-,450
Q2B_2	,701	-,325		-,414
Q2B_1	,671		,306	-,435
Q2B_8	,594		,311	-,281
Q2B_3	,578			-,295
Q2B_10	,503		,501	
Q2B_6	,256	-,861		-,379
Q2B_5	,372	-,826		-,339
Q2B_4	,299	-,714		-,473
Q2B_12	,335		,811	-,363
Q2B_11	,313		,743	
Q2B_15	,482	-,309	,301	-,801
Q2B_14	,406	-,355	,252	-,784
Q2B_13	,427	-,352		-,766

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

Pattern Matrixa				
	Factor			
	1	2	3	4
Q2B_9	,695			
Q2B_2	,669			
Q2B_16	,655			
Q2B_1	,598			
Q2B_8	,586			
Q2B_3	,585			
Q2B_10	,437		,357	
Q2B_6		-,859		
Q2B_5		-,814		
Q2B_4		-,633		
Q2B_12			,790	
Q2B_11			,738	
Q2B_14				-,767
Q2B_15				-,761
Q2B_13				-,733

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a Rotation converged in 5 iterations.

Factor Correlation Matrix				
Factor	1	2	3	4
1	1	-,298	,389	-,512
2	-,298	1	-,073	,424
3	,389	-,073	1	-,298
4	-,512	,424	-,298	1

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

Appendix 2.4 - Reliability analysis dependent variable consumers' motives

Appendix 2.4.1A Reliability influencing motives

Reliability Statistics	
Cronbach's Alpha	N of Items
,855	9

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2B_1	28,61	22,579	,605	,838
Q2B_2	28,66	22,633	,622	,836
Q2B_3	28,94	22,136	,559	,842
Q2B_7	29,68	22,179	,500	,849
Q2B_8	28,74	21,684	,542	,844
Q2B_9	28,99	20,917	,671	,830
Q2B_16	28,64	21,693	,681	,830
Q2B_17	28,33	23,473	,505	,846
Q2B_18	28,78	22,265	,552	,842

Appendix 2.4.1B Reliability influencing motives after removing items Q2B_18, Q2B_17

Reliability Statistics	
Cronbach's Alpha	N of Items
,821	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2B_1	18,14	10,466	,598	,792
Q2B_2	18,19	10,472	,625	,788
Q2B_3	18,46	10,257	,525	,806
Q2B_8	18,27	9,901	,514	,812
Q2B_9	18,52	9,311	,666	,775
Q2B_16	18,17	10,063	,630	,784

Appendix 2.4.1C Reliability individualizing motives

Reliability Statistics	
Cronbach's Alpha	N of Items
,715	3

Appendix 2.4.1D Empowering motives

Reliability Statistics	
Cronbach's Alpha	N of Items
,706	3

Appendix 2.4.1E Concerted motives

Reliability Statistics	
Cronbach's Alpha	N of Items
,727	3

Appendix 2.4.2 Reliability relating motives

Reliability Statistics	
Cronbach's Alpha	N of Items
,821	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2B_4	5,6	3,764	,652	,833
Q2B_5	5,59	3,44	,721	,768
Q2B_6	5,8	3,42	,753	,736

Appendix 2.4.3 Reliability ethical motives

Reliability Statistics	
Cronbach's Alpha	N of Items
,717	3

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2B_10	7,66	2,31	,420	,756
Q2B_11	8,2	1,549	,591	,565
Q2B_12	8,18	1,697	,627	,514

Appendix 2.4.4: Reliability developmental motives

Reliability Statistics	
Cronbach's Alpha	N of Items
,827	3

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2B_13	6,7	2,952	,684	,761
Q2B_14	6,91	2,954	,678	,767
Q2B_15	6,64	2,967	,689	,755

Appendix 2.5 - Pattern matrix and reliability analysis control variable willingness to co-create

Pattern Matrixa					
	Factor				
	1	2	3	4	5
Q2B_9	,685				
Q2B_2	,671				
Q2B_16	,641				
Q2B_3	,592				
Q2B_1	,585				
Q2B_8	,581				
Q2B_10	,428			,356	
Q2A_2		,961			
Q2A_3		,941			
Q2A_1		,862			
Q2B_6			-,857		
Q2B_5			-,809		
Q2B_4			-,632		
Q2B_12				,790	
Q2B_11				,736	
Q2B_13					-,759
Q2B_14					-,754
Q2B_15					,744

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

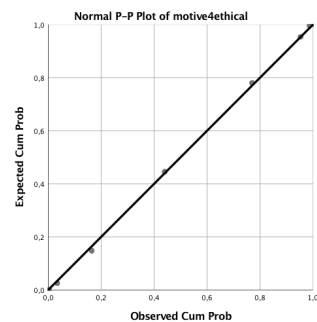
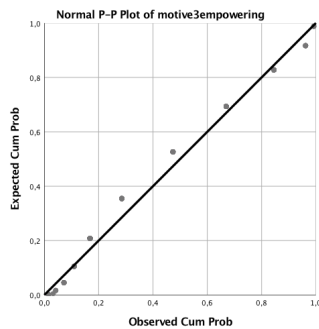
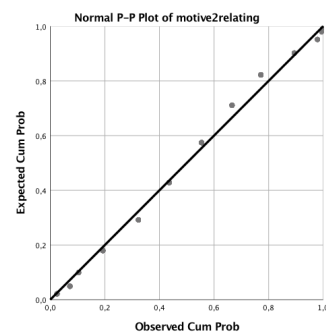
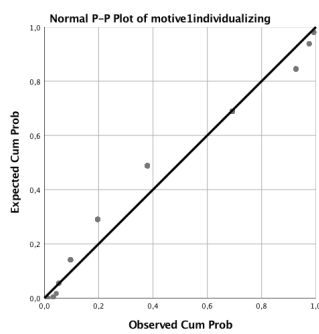
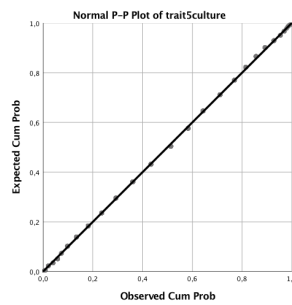
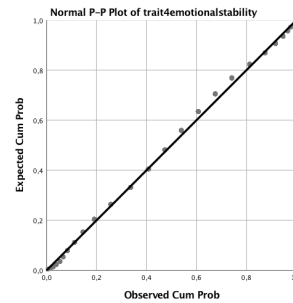
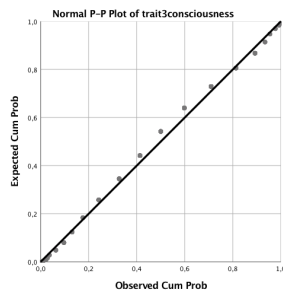
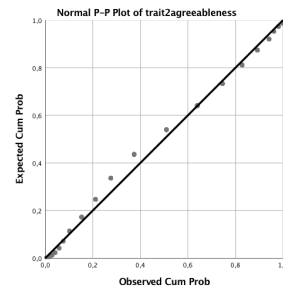
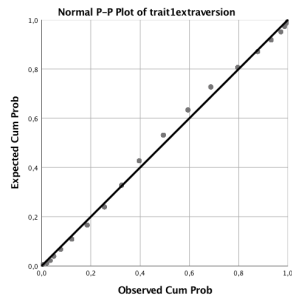
a Rotation converged in 5 iterations.

Reliability Statistics		
Cronbach's Alpha	N of Items	
,942	3	

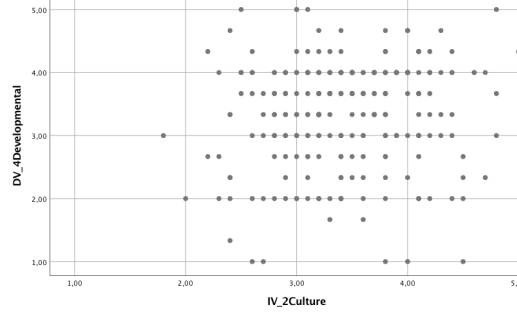
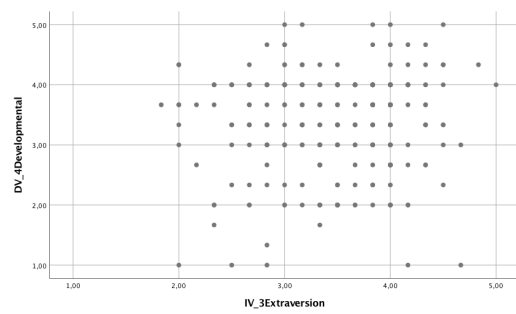
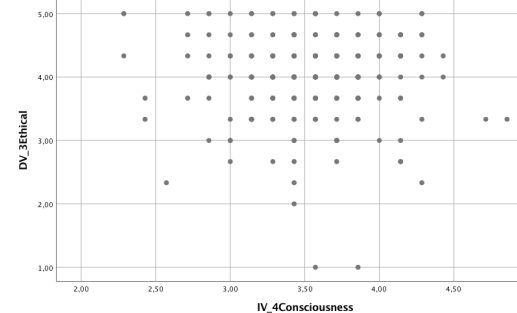
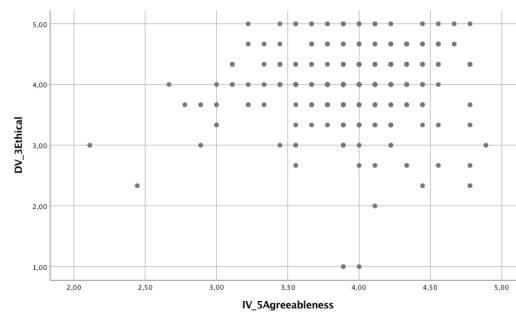
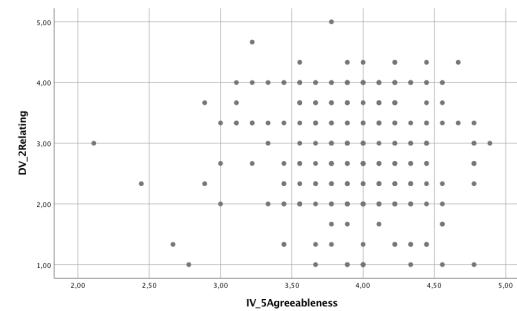
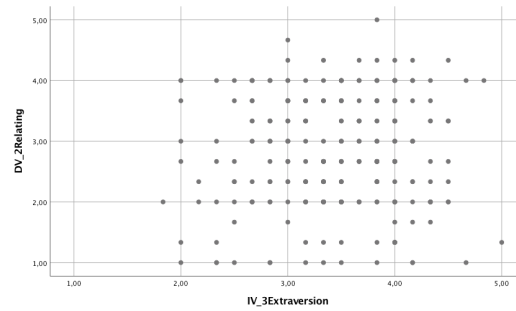
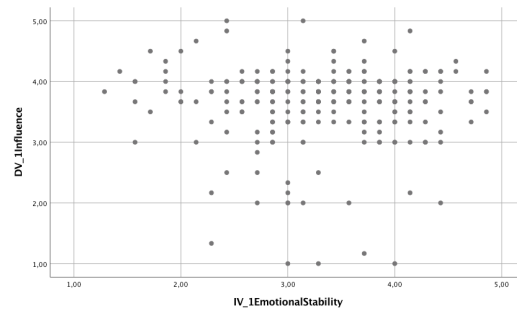
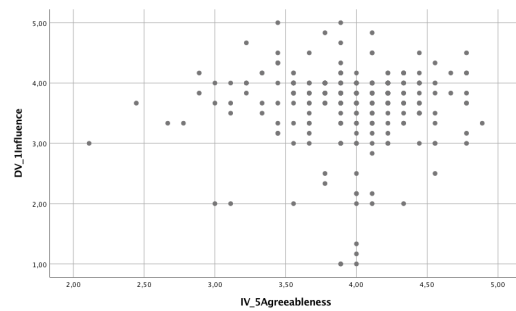
Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q2B_10	7,66	2,31	,420	,756
Q2B_11	8,2	1,549	,591	,565
Q2B_12	8,18	1,697	,627	,514

Appendix 2.6 - Assumptions multiple regression analysis

Appendix 2.6.1 P-P Plots



Appendix 2.6.2 Scatterplots



Appendix 2.7 - Multiple regression analyses

Appendix 2.7.1 Effects of personality traits agreeableness and emotional stability on influencing motives

Model Summary ^c									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,341a	,116	,106	,590	,116	11,466	3	261	,000
2	,350b	,122	,105	,590	,006	,865	2	259	,422

a Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate

b Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate, IV_5Agreeableness, IV_1EmotionalStability

c Dependent Variable: DV_1Influence

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11,966	3	3,989	11,466	,000b
	Residual	90,791	261	,348		
	Total	102,757	264			
2	Regression	12,568	5	2,514	7,219	,000c
	Residual	90,189	259	,348		
	Total	102,757	264			

a Dependent Variable: DV_1Influence

b Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate

c Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate, IV_5Agreeableness, IV_1EmotionalStability

Coefficients ^a										
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Correlations			Collinearity Statistics
	B	Std. Error	Beta				Zero-order	Partial	Part	Tolerance
1 (Constant)	3,049	,137			22,19	,000				
willingesstococreate	,018	,048	,029		,370	,712	,237	,023	,022	,550
DummyGender	-,147	,083	-,104		-1,77	,078	-,066	-,109	-,103	,983
Q3_3	,236	,059	,317		4,014	,000	,324	,241	,234	,543
2 (Constant)	2,968	,409			7,258	,000				
willingesstococreate	,017	,048	,027		,345	,731	,237	,021	,020	,548
DummyGender	-,191	,092	-,135		-2,081	,038	-,066	-,128	-,121	,803
Q3_3	,243	,059	,326		4,1	,000	,324	,247	,239	,535
IV_5Agreeableness	,076	,087	,052		,872	,384	,006	,054	,051	,963
IV_1EmotionalStability	-,061	,055	-,072		-1,104	,271	-,013	-,068	-,064	,802

a Dependent Variable: DV_1Influence

Appendix 2.7.2 Effects of personality traits extraversion and agreeableness on relating motives

Model Summary ^c									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	,269a	,072	,062	,878	,072	6,768	3	261	0
2	,271b	,073	,055	,881	,001	,154	2	259	,857

a Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate

b Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate, IV_5Agreeableness, IV_3Extraversion

c Dependent Variable: DV_2Relating

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15,64	3	5,213	6,768	,000b
	Residual	201,052	261	,770		
	Total	216,692	264			
2	Regression	15,879	5	3,176	4,096	,001c
	Residual	200,813	259	,775		
	Total	216,692	264			

a Dependent Variable: DV_2Relating

b Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate

c Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate, IV_5Agreeableness, IV_3Extraversion

Coefficients ^a										
Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Zero-order	Correlations Partial	Part	Collinearity Statistics Tolerance	VIF
1 (Constant)	2,077	,204		10,159	,000					
willingesstococreate	,011	,071	,012	,150	,881	,185	,009	,009	,550	1,819
DummyGender	-,107	,123	-,052	-,865	,388	-,021	-,053	-,052	,983	1,017
Q3_3	,282	,087	,261	3,231	,001	,263	,196	,193	,543	1,841
2 (Constant)	1,835	,628		2,920	,004					
willingesstococreate	,007	,072	,008	,095	,924	,185	,006	,006	,544	1,837
DummyGender	-,100	,125	-,049	-,800	,424	-,021	-,050	-,048	,971	1,03
Q3_3	,286	,088	,265	3,238	,001	,263	,197	,194	,535	1,871
IV_3Extraversion	,045	,087	,032	,523	,602	,038	,032	,031	,976	1,025
IV_5Agreeableness	,020	,129	,009	,156	,876	-,018	,010	,009	,982	1,019

a Dependent Variable: DV_2Relating

Appendix 2.7.3 Effects of personality traits agreeableness and consciousness on ethical motives

Model Summary ^c									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	,194a	,038	,027	,628	,038	3,417	3	261	,018
2	,214b	,046	,027	,628	,008	1,081	2	259	,341

a Predictors: (Constant), Q3_3, DummyGender, willingesstococreate

b Predictors: (Constant), Q3_3, DummyGender, willingesstococreate, IV_4Consciousness, IV_5Agreeableness

c Dependent Variable: DV_3Ethical

ANOVA ^a					
Model		Sum of Squares	df	Mean Square	F
1	Regression	4,047	3	1,349	3,417
	Residual	103,049	261	,395	
	Total	107,096	264		
2	Regression	4,9	5	,980	2,484
	Residual	102,196	259	,395	
	Total	107,096	264		

a Dependent Variable: DV_3Ethical

b Predictors: (Constant), Q3_3, DummyGender, willingesstococreate

c Predictors: (Constant), Q3_3, DummyGender, willingesstococreate, IV_4Consciousness, IV_5Agreeableness

Coefficients ^a									
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
	B	Std. Error	Beta						
1 (Constant)	3,713	,146	25,369	,000					
willingesstococreate	,130	,051	,208	2,546	,011	,194	,156	,155	,550
DummyGender	,009	,088	,006	,102	,918	,012	,006	,006	,983
Q3_3	-,017	,063	-,022	-,273	,785	,118	-,017	-,017	,543
2 (Constant)	3,224	,520	6,199	,000					
willingesstococreate	,125	,051	,201	2,449	,015	,194	,150	,149	,547
DummyGender	,006	,088	,004	,070	,944	,012	,004	,004	,979
Q3_3	-,006	,063	-,008	-,094	,925	,118	-,006	-,006	,535
IV_5Agreeableness	,134	,092	,090	1,464	,145	,083	,091	,089	,984
IV_4Consciousness	-,016	,093	-,011	-,176	,861	-,020	-,011	-,011	,992

a Dependent Variable: DV_3Ethical

Appendix 2.7.4 Effects of personality traits extraversion and culture on developmental motives

Model Summary ^c									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	,390 ^a	,152	,142	,764	,152	15,612	3	261	0
2	,401 ^b	,161	,145	,763	,009	1,333	2	259	,265

a Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate

b Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate, IV_3Extraversion, IV_2Culture

c Dependent Variable: DV_4Developmental

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27,334	3	9,111	15,612	,000 ^b
	Residual	152,32	261	,584		
	Total	179,655	264			
2	Regression	28,886	5	5,777	9,925	,000 ^c
	Residual	150,768	259	,582		
	Total	179,655	264			

a Dependent Variable: DV_4Developmental

b Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate

c Predictors: (Constant), Q3_3, DummyGender, willingnessstococreate, IV_3Extraversion, IV_2Culture

Coefficients ^a										
Model	Unstandardized Coefficient		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	2,367	,178		13,300	,000					
willingesstococreate	-,008	,062	-,010	-,125	,901	,255	-,008	-,007	,550	1,819
DummyGender	-,120	,107	-,065	-1,123	,263	-,018	-,069	-,064	,983	1,017
Q3_3	,392	,076	,399	5,155	,000	,385	,304	,294	,543	1,841
2 (Constant)	1,816	,382		4,754	,000					
willingesstococreate	-,026	,063	-,032	-,411	,682	,255	-,026	-,023	,530	1,886
DummyGender	-,093	,109	-,050	-,854	,394	-,018	-,053	-,049	,959	1,042
Q3_3	,400	,076	,407	5,260	,000	,385	,311	,299	,541	1,850
IV_3Extraversion	,066	,078	,050	,838	,403	,075	,052	,048	,898	1,114
IV_2Culture	,095	,086	,068	1,101	,272	,113	,068	,063	,862	1,160

a Dependent Variable: DV_4Developmental

Appendix 2.8 - Additional analyses

Appendix 2.8.1 Additional analysis gender

Model Summary ^{a,d}										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,231 ^b	,053	,025	,607	,053	1,893	2	67	,159	
2	,387 ^c	,150	,097	,584	,096	3,671	2	65	,031	

a 1. Bent u een man of een vrouw? = 1. Man

b Predictors: (Constant), attitude, willingnessstococreate

c Predictors: (Constant), attitude, willingnessstococreate, IV_5Agreeableness, IV_4Consciousness

d Dependent Variable: DV_3Ethical

ANOVA ^{a,b}						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,396	2	0,698	1,893	,159 ^c
	Residual	24,713	67	,369		
	Total	26,11	69			
2	Regression	3,905	4	,976	2,858	,030 ^d
	Residual	22,205	65	,342		
	Total	26,11	69			

a 1. Bent u een man of een vrouw? = 1. Man

b Dependent Variable: DV_3Ethical

c Predictors: (Constant), attitude, willingnessstococreate

d Predictors: (Constant), attitude, willingnessstococreate, IV_5Agreeableness, IV_4Consciousness

Coefficients ^{a,b}											
Model	Unstandardized Coefficient B	Std. Error	Standardized Coefficient Beta	t	Sig.	Zero-order	Partial	Part	Correlations	Collinearity Statistics	
1 (Constant)	3,895	,226		17,209	,000						
	willingnessstococreate	,178	,092	,317	1,936	,057	,183	,230	,230	,526	1,902
	attitude	-,013	,109	-,196	-,195	,236	,023	-,144	-,142	,526	1,902
2 (Constant)	1,91	,801		2,384	,020						
	willingnessstococreate	,160	,089	,286	1,807	,075	,183	,219	,207	,522	1,915
	attitude	-,118	,106	-,177	-,113	,270	,023	-,137	-,127	,517	1,932
	IV_5Agreeableness	,344	,140	,283	2,464	,016	,291	,292	,282	,992	1,008
	IV_4Consciousness	,176	,156	,131	1,128	,264	,145	,139	,129	,965	1,037

a 1. Bent u een man of een vrouw? = 1. Man

b Dependent Variable: DV_3Ethical

Appendix 2.8.2 Additional analysis age groups 1

Model Summary ^{a,d}									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	,291 ^b	,084	-,004	,916	,084	,953	3	31	,427
2	,499 ^c	,249	,120	,858	,165	3,180	2	29	,056

a age with 4 groups = > 56

b Predictors: (Constant), attitude, Dummy Gender, willingnessstocreate

c Predictors: (Constant), attitude, Dummy Gender, willingnessstocreate, IV_3Extraversion, IV_5Agreeableness

d Dependent Variable: DV_2Relating

ANOVA ^{a,b}						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,401	3	,800	,953	,427 ^c
	Residual	26,03	31	,840		
	Total	28,432	34			
2	Regression	7,083	5	1,417	1,924	,121 ^d
	Residual	21,348	29	,736		
	Total	28,432	34			

a age with 4 groups = > 56

b Dependent Variable: DV_2Relating

c Predictors: (Constant), attitude, Dummy Gender, willingnessstocreate

d Predictors: (Constant), 3. attitude, Dummy Gender, willingnessstocreate, IV_3Extraversion, IV_5Agreeableness

Coefficients ^{a,b}										
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF	
1 (Constant)	2,246	,554	4,051	,000						
	willingesstocreate	-,185	,188	-,243	-,988	,331	,041	-,175	-,170	,487
	Dummy Gender	-,398	,348	-,221	-,146	,261	-,081	-,202	-,197	,795
	attitude	,469	,292	,419	1,607	,118	,183	,277	,276	,435
2 (Constant)	,052	1,555	,034	,973						
	willingesstocreate	,030	,196	,040	,156	,877	,041	,029	,025	,394
	Dummy Gender	-,130	,342	-,072	-,380	,707	-,081	-,070	-,061	,718
	attitude	,155	,303	,139	,513	,612	,183	,095	,082	,354
	IV_3Extraversion	-,477	,286	-,301	-,1670	,106	-,121	-,296	-,269	,794
	IV_5Agreeableness	,998	,416	,462	2,400	,023	,390	,407	,386	,700

a age with 4 groups = > 56

b Dependent Variable: DV_2Relating

Appendix 2.8.3 Additional analysis age groups 2

Model Summary ^{a,d}										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	
1	,655 ^b	,429	,370	,694	,429	7,261	3	29	,001	
2	,720 ^c	,519	,430	,660	,090	2,521	2	27	,099	

a age with 4 groups = 26-45

b Predictors: (Constant), attitude, Dummy Gender, willingnessstococreate

c Predictors: (Constant), attitude, Dummy Gender, willingnessstococreate, IV_3Extraversion, IV_2Culture

d Dependent Variable: DV_4Developmental

ANOVA ^{a,b}						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10,488	3	3,496	7,261	,001 ^c
	Residual	13,963	29	,481		
	Total	24,451	32			
2	Regression	12,685	5	2,537	5,822	,001 ^d
	Residual	11,766	27	,436		
	Total	24,451	32			

a age with 4 groups = 26-45

b Dependent Variable: DV_4Developmental

c Predictors: (Constant), attitude, Dummy Gender, willingnessstococreate

d Predictors: (Constant), attitude, Dummy Gender, willingnessstococreate, IV_3Extraversion, IV_2Culture

Coefficients ^{a,b}										
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Correlations		Collinearity Statistics	
	B	Std. Error	Beta				Zero-order	Partial	Part	Tolerance
1 (Constant)	1,213	,445		2,727	,011					
	willingnesstocreate	,093	,173	,110	,538	,595	,509	,099	,075	,471
	Dummy Gender	,550	,290	,274	1,898	,068	,345	,332	,266	,947
	attitude	,457	,192	,478	2,382	,024	,583	,404	,334	,490
2 (Constant)	-,533	,949		-,562	,579					
	willingnesstocreate	,029	,184	,034	,158	,875	,509	,030	,021	,377
	Dummy Gender	,658	,284	,327	2,313	,029	,345	,407	,309	,890
	attitude	,424	,185	,444	2,297	,030	,583	,404	,307	,478
	IV_3Extraversion	,480	,232	,294	2,067	,048	,383	,370	,276	,883
	IV_2Culture	,082	,214	,062	,383	,705	,273	,074	,051	,681

a age with 4 groups = 26-45

b Dependent Variable: DV_4Developmental

Appendix 2.8.4 Additional analysis education groups 1

Model Summary ^{a,d}									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	,118 ^b	,014	-,115	,918	,014	,107	3	23	,955
2	,503 ^c	,253	,076	,836	,240	3,370	2	21	,054

a Education into 6 groups = voorgezet algemeen onderwijs

b Predictors: (Constant), attitude, Dummy Gender, willingesstococreate

c Predictors: (Constant), attitude, Dummy Gender, willingesstococreate, IV_3Extraversion, IV_5Agreeableness

d Dependent Variable: DV_2Relating

ANOVA ^{a,b}					
Model		Sum of Squares	df	Mean Square	F
1	Regression	0,271	3	,090	,107
	Residual	19,367	23	,842	
	Total	19,638	26		
2	Regression	4,976	5	,995	1,426
	Residual	14,661	21	,698	
	Total	19,638	26		

a Education into 6 groups = voorgezet algemeen onderwijs

b Dependent Variable: DV_2Relating

c Predictors: (Constant), attitude, Dummy Gender, willingesstococreate

d Predictors: (Constant), attitude, Dummy Gender, willingesstococreate, IV_3Extraversion, IV_5Agreeableness

Coefficients ^{a,b}										
Model	Unstandardized Coefficient B	Std. Error	Standardized Coefficient Beta	t	Sig.	Zero-order	Correlations Partial	Part	Collinearity Statistics Tolerance	VIF
1 (Constant)	3,088	,787		3,921	,001					
	willingesstococreate	-,071	,227	-,076	,311	,759	-,030	-,065	-,064	,716
	Dummy Gender	-,185	,449	-,090	-,411	,685	-,066	-,085	-,085	,896
	attitude	,136	,294	,118	,462	,648	,048	,096	,096	,663
2 (Constant)	3,992	2,276		1,754	,094					
	willingesstococreate	-,134	,228	-,144	-,587	,564	-,030	-,127	-,111	,590
	Dummy Gender	-,208	,439	-,102	-,474	,640	-,066	-,103	-,089	,775
	attitude	,066	,286	,057	,231	,819	,048	,050	,044	,580
	IV_3Extraversion	,566	,271	,424	2,085	,049	,373	,414	,393	,860
	IV_5Agreeableness	-,611	,423	-,314	-1,444	,163	-,261	-,301	-,272	,754

a Education into 6 groups = voorgezet algemeen onderwijs

b Dependent Variable: DV_2Relating

Appendix 2.8.5 Additional analysis education groups 2

Model Summary ^{a,d}										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	F Change	df1	df2	Sig. F Change	
1	,286 ^b	,082	-,020	,758	,082	,800	3	27	,505	
2	,654 ^c	,428	,313	,622	,346	7,561	2	25	,003	

a Education into 6 groups = middelbaar algemeen + beroepsonderwijs

b Predictors: (Constant), attitude, Dummy Gender, willingesstococreate

c Predictors: (Constant), attitude, Dummy Gender, willingesstococreate, IV_3Extraversion, IV_2Culture

d Dependent Variable: DV_4Developmental

ANOVA ^{a,b}						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,378	3	,459	0,8	,505 ^c
	Residual	15,504	27	,574		
	Total	16,882	30			
2	Regression	7,221	5	1,444	3,738	,012 ^d
	Residual	9,66	25	,386		
	Total	16,882	30			

a Education into 6 groups = middelbaar algemeen + beroepsonderwijs

b Dependent Variable: DV_4Developmental

c Predictors: (Constant), attitude, Dummy Gender, willingesstococreate

d Predictors: (Constant), attitude, Dummy Gender, willingesstococreate, IV_3Extraversion, IV_2Culture

Coefficients ^{a,b}											
Model	Unstandardized Coefficients			Standardized Coefficients		t	Sig.	Correlations			inearity Statistics
	B	Std. Error		Beta				Zero-order	Partial	Part	
1 (Constant)	2,833	,582				4,868	,000				
	willingesstococreate	-,078	,197	-,114		-,397	,694	,155	-,076	-,073	,416
	Dummy Gender	,033	,352	,018		,093	,926	,017	,018	,017	,958
	attitude	,303	,237	,361		1,279	,212	,274	,239	,236	,427
2 (Constant)	-1,591	1,275				-1,248	,224				
	willingesstococreate	-,260	,209	-,378		-1,243	,225	,155	-,241	-,188	,247
	Dummy Gender	,230	,307	,123		,748	,461	,017	,148	,113	,848
	attitude	,543	,220	,646		2,469	,021	,274	,443	,374	,334
	IV_3Extraversion	,301	,282	,207		1,067	,296	,314	,209	,161	,606
	IV_2Culture	,869	,313	,541		2,778	,010	,448	,486	,420	,604

a Education into 6 groups = middelbaar algemeen + beroepsonderwijs

b Dependent Variable: DV_4Developmental

Appendix 3 – Research Integrity Form - Master Thesis

Name: Esmee Zeekaf	Student number: 4355148
RU e-mail address: esmee.zeekaf@student.ru.nl	Master specialisation: Marketing

Thesis title: How to co-create based on personality
Brief description of the study: The perspective of marketing has changed from a good-dominant (G-D) logic to a more service-dominant (S-D) logic. Therefore co-creation has become increasingly important. This research examined if personality traits had an effect on consumers' motives for the willingness to co-create. This research showed that there was no relationship found between consumers' personality traits and consumers' willingness to co-create. As a result, managers should not focus on consumers' personality traits when interested in increasing consumers' motives to co-create.

It is my responsibility to follow the university's code of academic integrity and any relevant academic or professional guidelines in the conduct of my study. This includes:

- providing original work or proper use of references;
- providing appropriate information to all involved in my study;
- requesting informed consent from participants;
- transparency in the way data is processed and represented;
- ensuring confidentiality in the storage and use of data;

If there is any significant change in the question, design or conduct over the course of the research, I will complete another Research Integrity Form.

Breaches of the code of conduct with respect to academic integrity (as described / referred to in the thesis handbook) should and will be forwarded to the examination board. Acting contrary to the code of conduct can result in declaring the thesis invalid

Student's Signature: _____ **Date:** _____

To be signed by supervisor

I have instructed the student about ethical issues related to their specific study. I hereby declare that I will challenge him / her on ethical aspects through their investigation and to act on any violations that I may encounter.

Supervisor's Signature: _____ **Date:** _____