

SOLVING THE OMNISHOPPER PUZZLE

COMBINING PERSONALITY TRAITS,
CONSUMER VALUES AND THE THEORY OF
PLANNED BEHAVIOR TO DECRYPT LOW,
MODERATE AND HIGH ONLINE PURCHASE
INTENTION PRODUCT CATEGORIES

TRISTAN T. RAU - S0173150

<DEPARTMENT OF COMMUNICATION STUDIES>
<MARKETING COMMUNICATION AND CONSUMER BEHAVIOR>

EXAMINATION COMMITTEE

Dr. Mark Tempelman
Dr. Ardion Beldad

FACULTY OF BEHAVIORAL SCIENCES

31ST OF MARCH 2017

Table of Content

TABLE OF CONTENT	2
ABSTRACT	4
1. INTRODUCTION	5
2. THEORETICAL FRAMEWORK	7
2.1 ONLINE PURCHASE INTENTION	7
2.2 REPLICATION OF HANSEN (2008): MODIFICATION OF THEORY OF PLANNED BEHAVIOR	9
2.3 THEORY OF PLANNED BEHAVIOR	10
2.3.1 <i>Subjective Norm</i>	11
2.3.2 <i>Perceived Behavioral Control</i>	11
2.3.3 <i>Attitude</i>	12
2.4 CONSUMER VALUES	12
2.4.1 <i>Consumer values as part of the Hansen model</i>	13
2.4.2 <i>Conservation</i>	14
2.4.3 <i>Self-Enhancement</i>	14
2.5 PERSONALITY TRAITS – NEW ADDITION TO THE MODEL	15
2.5.1 <i>Need for Closure</i>	16
2.5.2 <i>Maximizers versus Satisficers</i>	18
2.5.3 <i>Consumer Susceptibility to interpersonal influence</i>	18
2.6 CONCEPTUAL MODEL	19
3 METHOD	21
3.1 GENERAL RESEARCH DESIGN	21
3.2 SURVEY OUTLINE	22
3.3 DETAILED DESCRIPTION OF AN EXAMPLE ROUTE THROUGH THE QUESTIONNAIRE	23
3.4 PARTICIPANTS	24
3.5 MEASURES	27
3.6 INDEPENDENT VARIABLES	27
3.6.1 <i>Subjective Norm</i>	27
3.6.2 <i>Perceived Behavioral Control</i>	28
3.6.3 <i>Attitude</i>	28
3.6.4 <i>Conservation</i>	29
3.6.5 <i>Self-Enhancement</i>	29
3.6.6 <i>Need for Closure</i>	29
3.6.7 <i>Maximizers vs. Satisficers</i>	30
3.6.8 <i>Consumer Susceptibility to Interpersonal Influence</i>	30
3.7 DEPENDENT VARIABLES	31
3.7.1 <i>Online Purchase Intention</i>	31
3.7.2 <i>Approach to structure the data by clustering the categories and industries</i>	31
3.7.3 <i>Data analysis</i>	33
3.7.4 <i>Self-Reported Purchase Behavior</i>	33
4 RESULTS	35
4.1 CONSERVATION AND SELF-ENHANCEMENT AS PREDICTORS OF ATTITUDE	35
4.2 REGRESSION ANALYSIS ON INTENTION CLUSTERS	37
4.2.1 <i>General results of the Intention Models</i>	38
4.2.2 <i>Demographics</i>	39
4.2.3 <i>Personality Traits</i>	40

4.2.4	<i>Theory of Planned Behavior</i>	42
4.2.5	<i>Self-Reported Purchase Behavior and Online Purchase Intention</i>	42
5	DISCUSSION	44
5.1	RESEARCH QUESTIONS	44
5.2	VALUES AS PREDICTORS OF THE ATTITUDE TOWARDS ONLINE PURCHASES	44
5.3	PREDICTORS OF THE ONLINE PURCHASE INTENTION	46
5.3.1	<i>Demographics</i>	48
5.3.2	<i>Personality Traits</i>	48
5.3.3	<i>Theory of Planned Behavior</i>	50
5.4	FUTURE RESEARCH DIRECTIONS	52
5.5	LIMITATIONS OF THE STUDY	52
6	CONCLUSION	52
7	REFERENCES	54
8	APPENDIX	58
8.1	QUESTIONNAIRE	58
8.2	CORRELATIONS	64
8.3	MULTICOLLINEARITY TABLE	67
8.4	SYNTAX	68
8.4.1	<i>Value-Attitude Regression Models</i>	68
8.4.2	<i>Regression Analysis on Intention Clusters</i>	68

ABSTRACT

Objective: The objective was the development of an integrated model to find the underlying factors of online purchase intention across a wide array of product categories. In turn, this knowledge should ideally give insights how to help those product categories and industries by providing them with valuable findings, how to enhance their online conversion.

Background: Despite the huge amount of scientific studies to investigate the underlying factors of online shopping, an overview across various services, product categories and industries is still missing. Hansen (2004, 2008) tried to shed some light on this issue, but restricted his research on online grocery shopping; still, his model inspired this research.

Method: An online survey has been conducted on a sample with 1470 participants, who are representative for the German online population. Due to the high amount of product categories and industries, a clustering by explanatory data analysis was not successful, so a different approach has been chosen: A clustering by high, moderate, and low intention purchase has been done to structure the huge amount of data. The regression analyses have been done with these three intention clusters on the proposed model to shed some light on the differences between the various product categories and industries. The model combines the theory of planned behavior, consumer values, and personality traits (need for closure, maximizers vs. satisficers and the consumer susceptibility to interpersonal influence).

Results: The results showed that the relevant factors often relevantly differed between the product categories. Further, the proposed model showed that with increasing purchase intention the explained variance also increased. The most influential and important factor is the attitude of the individual itself, rather than the influence of others or their own personality traits (e.g., need for closure or maximization). Furthermore, the approach to use values to explain the attitude toward online shopping was less promising and so, other determinants have to be tested.

Conclusion: The proposed model proved useful, but personality traits had a smaller influence than expected. Nevertheless, for low online purchase intention product categories, the subjective norm and attitude positively influence the intention as well as the need for closure influences it negatively. For moderate online purchase intention products, again, the subjective norm, household income and attitude influence the intention positively, but the consumers' susceptibility to interpersonal influences and need for closure exerts a negative influence on the intention. Furthermore, for high online purchase intention products, the most important positive factor is the attitude followed by household income, but also the need to maximize a decision, age and gender has a negative influence on the intention.

1. Introduction

Since the dawn of ecommerce and online shopping, it has been a great way to sell products and services with a still increasing potential (Lim, Osman, Salahuddin, Romle, & Abdullah, 2016). According to the most recent report of the German *Arbeitsgemeinschaft Online Forschung* [AGOF; in English: Working Group for Online Media Research], online-shopping was the third most carried out online activity, with 72,8% of the internet users in Germany (roughly 56 million or 76% of the German population older than 14) doing it very often, after conducting online searches (93%) and sending and receiving e-mails (87%) (AGOF, 2015). However, some industries were and still are more suitable to use the advantages (e.g. books) that the Internet provides opposed to other industries (e.g. groceries) (Lim et al., 2016). Earlier studies regarding internet shopping intentions already showed that not convenience per se, but the product types play a major role in deciding whether to buy online or not (Brown, Pope, & Voges, 2003). Furthermore, consumers' purchase behavior also depends highly on the degree of certainty whether the product matches their preference and the advertised quality (Dimoka, Hong, & Pavlou, 2012). Additionally, Puccinelli and colleagues (2009) state that it has never been more important for retailers to understand consumer behavior than nowadays.

Product categories and industries

Some product categories or types directly have and had a higher chance to be sold successfully online (i.e. books or fast moving consumer goods). It is especially important that the ordering of the product or service via the Internet (independent whether through a website or app) is rated as valuable and advantageous in the eye of the customer (Puccinelli et al., 2009). Hence, products that do not require a direct product experience (Hansen, 2008) or tactile stimulation (Peck, 2011) are more suitable and therefore have a higher chance of selling. Consequently, some industries that do not fulfill these requirements still have troubles establishing an online reputation that convinces the customers of the added value, when buying their products and services online (i.e. online grocery shopping; Hansen, 2008).

However, most recent studies often focus on one particular industry or service: online grocery shopping or e-groceries (de Kervenoael, Elms, & Hallsworth, 2014; Goethals, Leclercq-Vandelannoitte, & Tütüncü, 2012; Hand, Dall'Olmo Riley, Harris, Singh, & Rettie, 2009; Hansen, 2008; Hansen, Jensen, & Solgaard, 2004). Especially, earlier studies conducted by Hansen et al. (2004) and a follow-up study by Hansen (2008) tried to shed some light on the factors that influence the purchase intention of individuals and reasons of the difficulties

to sell groceries online on a broad scale. Yet, the mere focus on one industry, namely online grocery buying, does not provide a more complex answer, which is applicable to a wider array of industries or product categories. Therefore, Hansen (2008) suggested to test his proposed conceptual model to a wider array of consumer products, in more detail both search and experience goods.

There are studies that already tried to investigate the effects of consumer characteristics on their acceptance of online shopping across different product types (J. W. Lian & Lin, 2008). Yet, since the study has been published, the Internet and its offer and availability of products and services expanded and are even more complex nowadays, which speaks for a more elaborated and broader focus. Lian and Lin (2008) compared just four types of products: “low outlay, frequently purchased goods” that are either “physical or tangible” (e.g. books) or “intangible or just informational” (e.g. online news or magazines) and “high outlay, infrequently purchased goods” that are either “physical or tangible” (e.g. TV gaming systems) or “intangible or just informational” (e.g. computer games). Their results of a regression analysis showed that there were significant differences between product and service types regarding their determinants of online shopping acceptance. Another recent study investigated the influence of gender and product types on online purchase behavior (Pascual-Miguel, Agudo-Peregrina, & Chaparro-Peláez, 2015). Their results showed that the differences between man and woman decrease, which speaks partly for a more general approach to reach the target audience. However and more interestingly, the results differed when the participants were asked regarding specific product types (i.e., digital or not digital goods) or not (Pascual-Miguel et al., 2015). Concluding, they suggested to investigate the online purchase behavior across different types of services and goods rather than only different types of goods.

Theoretical and practical relevance

In line with the suggestions, the present study will have a broader scope and will investigate and compare a variety of product categories and industries with each other in order to find the underlying factors and determinants for success and adoption. To achieve this, the study will investigate the influence of stable personality traits and situational or industry-related factors alike on purchase intention in the offline-online context. Socio-demographics (gender, age, and household income) and personality traits will also be included in this research in order to get a more comprehensive view on the underlying factors. Both, socio-demographics and personality traits can help to create consumer segments and allow to give specific answers how to approach specific target groups regarding specific product categories.

Furthermore, the underlying motivation to use the internet to buy specific products and the underlying factors and reasons, such as personality characteristics and preferences (e.g. relying on user-generated recommendations or sheer product information), are of special interest here. From a theoretical point of view, this study can help to distinguish product categories and create clusters to get an answer for more than one category or type at once. Further, the results can show for which factor are general differences or product type specific differences present and how consumers should be approached for internet-based sales and marketing activities.

2. Theoretical Framework

Generally, the influence of personality as well as situational or contextual factors on the purchase intention has been tested across a wide array of products and industries. However, many studies dealt with the factors within the online world that influence the consumer to buy, for example, on a particular website or not. A quite recent study, researched the influence of website design on booking holidays and trips on a website (Dedeke, 2016). However, the purpose of this research is getting to know why consumer do or do not choose to buy online. Subsequently, it is important to know how to persuade them, but they have to acknowledge the Internet as a good way to buy products and services.

2.1 Online Purchase Intention

According to Dedeke (2016), the intention to purchase is the best predictor of actual action. Therefore, it is crucial to investigate the factors that influence the purchase intention. Again, Dedeke (2016) talks about the underlying factors of purchase intention on a website, yet, this study focuses on the underlying reasons why a consumer does use the internet to purchase goods rather than visiting regular shops (in the context of his research: travel websites). Especially in the online world, it is important to get a good indication of the perceived product or service quality due to lack of multisensory impressions and tangible objects, which in turn is also a factor that influences online purchase intention.

Based on the findings of Yulihhasri, Islam, and Dauk (2011), the usefulness, ease of use, compatibility, and security are important predictors toward the attitude to shop online, which in turn has an influence on the intention. However, Yulihhasri et al. (2011) conducted their research in Malaysia and only used students as their sample. Hence, it might be interesting to see which factors are important in Germany and measuring their power in a representative sample here.

Furthermore, Vijayasarathy (2004) also saw online purchase intention as a very important factor and used it as a surrogate for the actual behavior. Many studies investigated the online purchase intention not product related but as a general subject (Bosnjak, Galesic, & Tuten, 2007; Chiu, Wang, Fang, & Huang, 2014; Choi & Geistfeld, 2004; Clemes, Gan, & Zhang, 2014; J.-W. Lian & Yen, 2014; Liao & Cheung, 2002; Lim et al., 2016; Michaud-Trévinal & Stenger, 2014; Mosteller, Donthu, & Eroglu, 2014; Quintal, Phau, Sims, & Cheah, 2016; Shih, 2004; Smith et al., 2013; To, Liao, & Lin, 2007; Van Der Heijden, Verhagen, & Creemers, 2003; Vijayasarathy, 2004). Some of these studies did try to investigate the online purchase intention across different age cohorts or groups, for example for older customers (J.-W. Lian & Yen, 2014) or generation Y with specific brands (Quintal et al., 2016), gender differences (Hasan, 2010) and some tried to compare different cultures or countries (Bian & Forsythe, 2012; Choi & Geistfeld, 2004; Smith et al., 2013). However, there are also many studies that tried to shed some light on it for specific product categories or industries. A small overview will be given here:

Liao and Cheung (2002) studied the attitudes of consumers toward the usefulness and intention to use e-retail banking. They found that the most important quality factors of the perceived usefulness were accuracy, security, network speed, user-friendliness, user involvement and convenience, which in turn influence the intention to use the service. Additionally, Lien, Wen, Huang, and Wu (2015) investigated the purchase intentions for online hotel booking and found that the most important determinants in this context were the brand image of the service, the perceived price and its justification, and the perceived value of the hotel and booking.

Another study examined the purchase intentions for luxury brands across cultures (Bian & Forsythe, 2012). They compared US students with students from China and their results implicated that for both groups the self-monitoring of consumers influenced affective attitudes, which in turn affected the purchase intention. Agrebi and Jallais (2015) asked French mobile purchasers and non-purchasers of train tickets. Their results indicate that only among purchasers of train tickets via smartphone the enjoyment of the online purchase and the related satisfaction, because of a purchase on the smartphone, relevantly influenced the online purchase intention. In the travel industry, results indicated that both the perceived product quality and the online purchase intention is influenced by the website design (Dedeke, 2016). Hasan (2010) studied the differences among man and woman regarding skating shoes and accessories. His results showed that woman might shop less online, thus have a lower

online purchase intention, because of their markedly lower cognitive attitude toward it. Thus, it seems to be less attractive to them than shopping in a bricks-and-mortar store. In another study, the focus was more on service attributes rather than product attributes and investigated how consumers perceived the online shopping convenience of a major retail company in Hong Kong, which was the largest supermarket retailer (Jiang, Yang, & Jun, 2013). Their results showed that there are five main dimensions of the convenience when buying online: access, search, evaluation, transaction, and possession/post-purchase convenience (Jiang et al., 2013). Contrary to consumer groups from the US and Norway, the online shopping intention of the German consumer group was less influenced by affective involvement. Hence, the German consumer group online shopping intention seemed to be influenced majorly by utilitarian motivations. Verhagen and van Dolen (2009) compared the online purchase intention in the context of multi-channel store images of a large music retail store in the Netherlands. Both, the offline and online store impressions had an influence on the online purchase intention.

2.2 Replication of Hansen (2008): Modification of Theory of Planned Behavior

Hansen (2008) investigated the importance and relation of personal values, attitudes, and behavior towards online grocery shopping. The originally developed model is based on the theory of planned behavior (Ajzen, 1991) and related personal values (S. H. Schwartz, 1992). Since the provided framework and model with its value-attitude-behavior approach proved to yield explanatory power in this context, the study conducted by Hansen (2008) will be partially replicated and the developed model will be used as a cornerstone for the new model. The provided model was chosen as a suitable model for this context, because it has its main focus on the ultimate purchase intention of products and sees the Internet and product categories as a mere factor that lays outside of the model. Hence, the model might be applied in various contexts and is not restricted to specific situations, product types or categories, or technologies. Furthermore, traditional frameworks or theories, such as the theory of planned behavior (Ajzen, 1991), are often suitable to being applied in online contexts as well (Van Der Heijden et al., 2003), which was also confirmed by the study of Hansen (2008).

The values added by Hansen (2008) have different influences on the attitude: In this model, *conservation* has a negative influence and *self-enhancement* has a positive influence on the *attitude towards online purchases*. In more detail, the values conservation and self-enhancement were initially applied, because Internet shopping can be seen as “non-traditional” for some product categories and other consumers might attach efficiency or

achievement values to it (Hansen, 2008). Therefore, the general traits of being conservative and trying to behave in a way to enhance oneself life have been added and kept in the model due to their confirmed relevant influence on consumers attitude by Hansen (2008).

In the original model, the influence of the values “openness to change” and “self-transcendence” were investigated as well, but those had no significant influence on the attitude toward purchase intention. Hence, both were neglected in this study.

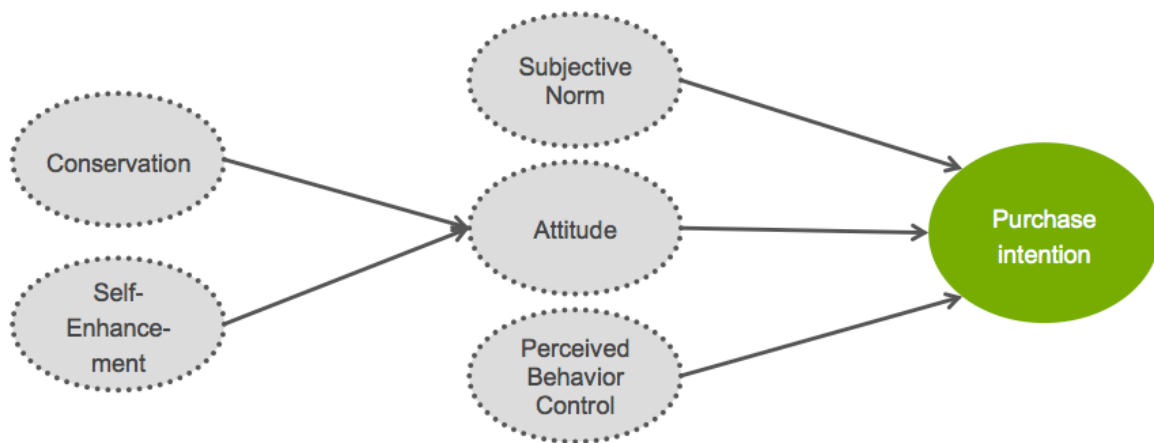


Figure 1: Model of Hansen (2008) with only confirmed causal relationships.

2.3 Theory of Planned Behavior

Besides being used in various contexts in the behavioral sciences, the theory of planned behavior [TPB] was also successfully applied in consumer behavior research and in predicting purchase behavior. Hansen and colleagues (2004) compared the TPB with its predecessor, the theory of reasoned action (Ajzen, 1991; Ajzen et al., 1980), and showed that the TPB is better suited to explain consumer behavior. Furthermore, again Hansen (2008) successfully used the TPB again to explain online grocery shopping. Therefore, the theory of planned behavior was chosen in this study as well and will be thoroughly discussed and explained in this section.

According to Ajzen (1991), the factors that lead to an actual behavior are the subjective or social norm of an individual, his or her attitude toward this behavior, and the perceived behavioral control. In other words, three kinds of salient beliefs influence the intention to actually carry out a particular behavior, which in turn influences the actual behavior. The behavioral beliefs influence the attitude toward the behavior; the normative belief influence the underlying determinants of the subjective norm; and control beliefs influence the perception to even be able to carry out this particular behavior. In other words,

the attitude toward a behavior, perception of the norm in one’s surrounding, and the evaluation of actually being able to perform this behavior, give an indication of the intention and ultimately motivation to perform this behavior.

Van Der Heijden, Verhagen, and Creemers (2003) stated that to a very large extent, online consumer behavior can be studied by using traditional or “offline” frameworks. According to Vijayasarathy (2004), the theory of planned behavior is a valuable tool to provide insights into who shops online and what are the underlying factors, especially their intention. Furthermore, intention-based theories offer a better understanding of the reasons why some consumers choose to purchase products and services online and others do not.

2.3.1 Subjective Norm

The subjective norm of a person can be seen as the individually perceived social pressure or influence to engage in a particular behavior or not (Ajzen, 1991). Furthermore, it is a relevant factor of the theory of planned behavior and a determinant of the behavioral intention (Ajzen, 1991; Hansen, 2008). Vijayasarathy (2004) stated that significant others of an individual influence the individual with their opinion regarding online shopping. However, the influence of the social or subjective norm is rather indirect via the intention to exert a particular behavior and not direct on the behavior itself (Ajzen, 1991; Lim et al., 2016). The study of Lim et al. (2016) confirmed the significant influence on the intention to shop online, yet the direct influence of the subjective norm on the online purchase behavior was not significant. Concluding, the subjective norm can influence the intention significantly, which in turn influences the actual purchase behavior.

H1: The subjective norm is positively related to the online purchase intention.

2.3.2 Perceived Behavioral Control

The perceived behavioral control [PBC] is an important part of the theory of planned behavior (Ajzen, 1991; Hansen, 2008). The perceived behavioral control gives an indication of the perception of an individual whether he/she is capable of carrying out this behavior and how strong this belief in his/her own ability. Further, it is determined by beliefs of control about the behavior related to the availability of required resources as well as control regarding the desired outcome of the behavior (Ajzen, 1991). Self-efficacy is also an important aspect of the PBC (Choi & Geistfeld, 2004). This determinant was added to the TPB, but was not covered in the Theory of Reasoned Action [TRA] (Ajzen et al., 1980). The underlying reason it has been added, were the fact that the TRA failed to deal with voluntary behavior. In the context of online shopping, it has been suggested by several authors to include it to the model,

because Internet shopping requires skills and resources, which should be controlled as well (Hansen, 2008; Shim, Eastlick, Lotz, & Warrington, 2001).

H2: The perceived behavior control is positively related to the online purchase intention.

2.3.3 Attitude

As stated by the theory of planned behavior, the attitude of a person regarding a particular behavior is one of the determinants of their intention to actually engage in this behavior (Ajzen, 1991). Or another way to describe it would be, that the attitude is the extent to which an individual prefers or likes online shopping and considers it as a good idea (Vijayasarathy, 2004). Further, the attitude is determined by an individual's cognitive knowledge, thus attitudinal beliefs, about a particular behavior and the importance of the belief regarding the desired outcome of the behavior. In the study of Bian and Forsythe (2012), the affective attitudes were the most important determinant of the purchase intention, which is in line with the causal relationship within the TPB (Ajzen, 1991). The affective attitudes were influenced by the social-function attitudes. This stresses the importance of attitudes in general. Therefore, the following hypothesis has been derived:

H3: The attitude toward online purchases is positively related to the online purchase intention.

2.4 Consumer values

According to the definition of values by S. H. Schwartz (1992), values are “the criteria people use to select and justify actions and to evaluate people (including the self) and events” (p. 1). These criteria can be seen as general and not merely dependent on the situation or context and therefore, people use the values as a guidance to behave appropriately or properly (Fornara, Pattitoni, Mura, & Strazzera, 2016). Furthermore, values are not only self-centered but also social-centered, which means that they can be seen as a connection between the individual and its society (Grunert & Juhl, 1995).

In more detail, ten higher-order universal values were identified by Schwartz (1992), which can be placed into the overall context on two bipolar axes. The two value dimensions or continuums of opposing values range from *self-transcendence* to *self-enhancement* and respectively from *openness to change* to *conservation*.

The first basic dimension, called “openness to change versus conservation”, contains combined values related to stimulation and self-direction on the *openness to change* side opposed to combined values related to security, conformity, and tradition on the *conservation*

side (S. H. Schwartz, 1992). In other words, *openness to change* arrays values that show to what extent individuals follow their own emotional and intellectual interests in uncertain and unforeseeable situations; versus *conservation*, which arrays values hold by individuals that are trying to preserve the status quo and its safety and certainty, it gives them regarding relationships with significant others, traditions or even institutions.

The second basic dimension, called “self-enhancement versus self-transcendence”, contains combined values related to power, achievement, and hedonism on the *self-enhancement* side opposed to combined values related to universalism and benevolence, including spiritual values, on the *self-transcendence* side (S. H. Schwartz, 1992). In other words, *self-enhancement* arrays values that show the extent to which people are motivated to enhance their personal interests, even on the costs of others; versus *self-transcendence*, which arrays values hold by individuals that want to promote the welfare of others, independent of their relationship to them, as well as the nature and have the aim to transcend selfish concerns.

Grunert and Juhl (1995) analyzed Schwartz' value inventory [SVI] and concluded that it is a promising measurement instrument. According to their results, it is a suitable instrument not only for cross-cultural research within the social psychology, where it has been applied often, but also in the research of consumer behavior. Hence, values stemming from the SVI have been successfully applied in the consumer context to shed some light on behavioral intentions. For example, Fornara et al. (2016) successfully tested a model to explain the underlying factors of the intention to use renewable energy sources at home. In their study, values proved to yield explanatory power to enhance the overall model. In the same line, Rahman and Reynolds (2016) proved that values have a significant indirect influence on the intention to use green hotels rather than environmentally-unfriendly hotels.

2.4.1 Consumer values as part of the Hansen model

Further, the values stemming from the SVI have also been used in the study of Hansen (2008) in order to shed some light on the intention to buy groceries online. However, the opposite values of each dimension, thus on the first dimension *openness to change* and on the second dimension *self-transcendence*, have not been included in this current model, because they did not yield any significant explanatory power in the study of Hansen (2008). Therefore, it has been chosen to integrate only the underlying values of *conservation* and *self-enhancement* in the theoretical framework.

2.4.2 Conservation

The value construct *conservation* can be understood as an approach to do things in a certain way, because it always has been done this way, it is customary and keeping the world order as it is (Hansen, 2008). Furthermore, it can be described by being self-restricted, having a preference for order, and being resistant to change. Additionally, the emphasis lays on self-restraint, protection of order and an aversion against self-direction and stimulation (Grunert & Juhl, 1995). Also, people who score high on this value are not open to change, but prefer traditional values, conformity, and security (S. H. Schwartz, 1992).

Despite the fact that the Internet is accepted in the society and used across all age and socio-economic groups (AGOF, 2015), there are downsides in the eye of rather traditional consumers. The Internet lacks personal service, transforms the cities into ghost towns by forcing old bricks-and-mortar stores, especially small and medium businesses, to close due to harsh price competition and a decrease in customers. Even though it mostly sounds paradox, many say that the Internet is the reason for their failure, but still use it for their own advantages. This is a perfect example of a cognitive dissonance, because even though the Internet is the problem and small and medium businesses around the corner should be supported, the consumers still shop on the Internet, when their personal interests matter. Nevertheless, the cognitive attitude is of interest here and consumers that value *conservative belief* are probably in favor of supporting the local stores and not buying online on websites of global conglomerates.

In conclusion and in line with (Hansen, 2008), the following hypothesis has been derived for the value *conservation*:

H3.1: Conservation is negatively related to the attitude toward online purchases.

2.4.3 Self-Enhancement

The value construct *self-enhancement* focuses on power, wealth, and the effective manner to getting things done (Hansen, 2008). This value is the complete opposite to *self-transcendence*, hence having (almost) no concern for the interests and welfare of others. Individuals that score high on this value are more self-concerned, having only their own interest in mind or trying to pursue their own interests, getting power and achieve things.

Applied to the given context, consumers who have a high interest in *self-enhancement* might not think of others and only act to gain a personal advantage. Hence, when the Internet has the best deals and products, they might go online to shop there rather than going to the

city or mall and look for products without being able to know compare the products or knowing whether this is the perfect fit. The Internet offers not only products from their own country, but they can also order products from foreign countries, when they get a better deal there or a better product for that matter. Another advantage is the absence of personal contact, so that the process of buying a product at a certain store or web shop can be based on a pure rational base and anonymity, rather than pity the nice salesman or being too polite to say no to a friend or significant other and buying the product for a higher price at their store instead of online. Furthermore, decision aids, such as recommendations, websites that compare prices or filtering options all help the consumer to find the best suitable product without undergoing much hassle, in turn helping him/her to enhance the process and ultimately the self, because probably costs have been cut and time has been saved without hurting anyone's feelings.

In conclusion and in line with (Hansen, 2008), the following hypothesis regarding the value *self-enhancement* has been derived:

H3.2: Self-Enhancement is positively related to the attitude toward online purchases.

2.5 Personality Traits – New Addition to the Model

Based on the already described factors, new factors have been added. These factors will be described in more detail within this section. Bosnjak, Galesic, and Tuten (2007) state that personality traits and personality determinants also influence online shopping behavior. Further, they state that the relationship between personality traits and online purchase behavior is very important and still an area of consumer behavior that needs more consideration and attention. In order to shed more light on specific and possibly relevant personality traits in the online shopping context, the original developed model by Hansen (2008) has been further elaborated. Furthermore, in line with this research, a recent study conducted by Lim et al. (2016), found that the theory of planned behavior helps to understand basic factors that influence online shopping behavior. However, they propose to use a broader and a more representative sample as well as other variables that are related to online shopping to minimize biases and increase explanatory power. Therefore, new factors have been added, which will be discussed now.

Contrary to the factors stemming from the TPB, the personality traits are not related to specific product categories or industries, but are generally applicable and are rather stable between situations and contexts.

The three respective personality traits have been chosen on basis of several reasons, which should not be seen against other personality traits (e.g. the big five), but should highlight the underlying rationale of those used in this model. The need for closure and need for maximization (maximizers vs. satisficers) have been chosen and are applicable here due to their relevance in the context of decision making and the factors that influence it. Ultimately, the purpose of this study is to find reasons why consumers decide to buy product online or offline. Hence, applying personality traits that have been useful to explain decisions seem to be a defendable choice.

Furthermore, the consumer susceptibility of interpersonal influence is also highly relevant in this context. It is a social world and social interactions influence our decisions in many ways. However, often it regards product choices or brands, but when moving one step back, does it also influence one's preference to buy a certain product online or offline? The consumer susceptibility gives a clear indication of a person's likelihood to be influenced by his/her surrounding and significant others.

2.5.1 Need for Closure

The need for closure [NFC] of an individual seems to be related to the motivation to engage in an effortful search for products and product-related information (Kruglanski, 1990; Vermeir & Van Kenhove, 2005; Vermeir, van Kenhove, & Hendrickx, 2002). Kruglanski & Webster (1996) state that "the need for cognitive closure refers to individuals' desire for a firm answer to a question and an aversion toward ambiguity" (p. 264). However, the need for closure ranges on a motivational continuum rather than being a dichotomous construct (Kruglanski & Webster, 1996). The study of Schlink and Walther (2007) also showed that a high need of closure has a high negative correlation with the tolerance of ambiguous situations. Translated to the consumer context, individuals might prefer a purchase situation and context where they feel the least uncertain and which lacks ambiguity; whether online or offline might depend on both the individual and the product category or industry. Generally, the need for closure is a quite stable individual trait, but can vary dependent on situational or contextual situations (Schlink & Walther, 2007; Webster & Kruglanski, 1994), such as mental fatigue (Webster, Richter, & Kruglanski, 1996) or perceived joy of a cognitive task (Houghton & Grewal, 2000) can increase or decrease the need for closure. Concluding, the need for closure might help to get an impression of the underlying reasons for individuals to buy online or offline in different product categories or industries. For example, individuals, who have a high tendency to reach closure, are highly motivated to reach a goal quickly (in

this case the purchase) and determine the unpleasant state of uncertainty and lack of closure (Webster & Kruglanski, 1994).

Both the online and offline purchases have their respective advantages and disadvantages to reach a quick decision and thus reach closure. The Internet offers an overwhelming number of products, which guarantees to find the needed product, but the mere number of products means a more complicated search and a higher consideration set, because they have to be evaluated (Goodman, 2013; Goodman & Malkoc, 2012). Due to the preferred usage of heuristics and cognitive short cuts (Jung & Kellaris, 2004), consumers with a high need for closure might not go online for products they have never bought before or usually buy offline. Furthermore, the brick-and-mortar shops might have a more suitable number of options and the help of expert feedback of the staff, but also yield the risk of not having the needed product available, leaving the consumer unsatisfied and not reaching closure for the decision at hand. However, even if the most preferred product is not available, the consumer probably does not know this and buys the best product at hand or available. Again, as already stated, because of the urge to reach closure quick, individuals that score high on need for closure prefer to use cognitive shortcuts and apply simple heuristics (Jung & Kellaris, 2004). On the Internet, the sheer number of products and waiting time until the product arrives, gives a person with a high need for closure only partially closure. Additionally, high need for closure consumer do experience higher levels of post decisional regret, so their decision to buy something online or offline has to be well-considered and mature (Mannetti, Pierro, & Kruglanski, 2007). Given that for many situations online is not the first choice, this variable can contribute to the findings why offline or online will be chosen to buy products. Furthermore, their intention is to remain in a state of closure, when they already are fond of their choice (hence, offline), they would probably not change their behavior to try new ways to buy something.

Furthermore, the personality trait *need for closure* and the value *conservation* share some commonalities: People, who score high on the *need for closure*, and people, who score high on the value of *conservation*, both try to preserve the status quo and its safety and certainty and are reluctant to change or new ways to do certain things. Hence, it can be concluded that both do have an (in-)direct negative influence on the online purchase intention.

Therefore, the following hypothesis has been proposed:

H4: The need for closure is negatively related to the intention to purchase online.

2.5.2 Maximizers versus Satisficers

Another interesting individual trait, which might be relevant in this context and help explaining the choice for online or offline purchases, is the effort consumers are willing to invest, when making that purchase situation. According to Polman (2010), consumers can be globally divided into two categories when it comes to their willingness to invest effort to make a purchase decision: *maximizers* and *satisficers* (B. Schwartz et al., 2002). Maximizers are willing to invest a lot of time and effort to come up with the best possible solution to a problem, in this case finding the best product (Polman, 2010; B. Schwartz et al., 2002). Satisficers or non-maximizers are the exact opposite, they are less motivated and driven to find the best possible solution and are satisfied and comfortable with an acceptable solution (Polman, 2010; B. Schwartz et al., 2002). Although seen as a general trait, it can vary among situations. However, it can help to shed some light on the question, whether consumers prefer to stroll the streets and look what is available that suits their needs (satisficers) or go online and search for the best possible product with the best price (maximizers) or maybe the other way around, when online does not provide the possibility to evaluate the quality reliably and therefore going to the store. Again, a brick-and-mortar store gives a consumer a restricted amount of options and in this context, the consumer can maximize his or her decision. However, since the consumer does know about better and more options available on the internet, he or she would prefer to purchase online, because it is easier to apply his or her criteria to the consideration set and find the best possible option. In other words, they always try to maximize their life, so they after buying “offline” they would reside in a temporal state of satisfaction, but still keep trying to maximize their life even more. Hence, the following hypothesis has been proposed:

H5: The need for maximization is positively related to the intention to buy online.

2.5.3 Consumer Susceptibility to interpersonal influence

Furthermore, the consumer susceptibility to interpersonal influence [CSII] has been included in the new model, because it also yields potential explanatory power in this context. The general interpersonal influence is frequently included to models to explain consumer behavior, because people, who rely on the opinion of others in one situation or regarding one issue, will likely ask others in other situations as well (Bearden, Netemeyer, & Teel, 1989). Furthermore, it can be stated that the opinion of significant others' is an important determinant of an individual's behavior as well as influencing the development of attitudes and values (Bearden et al., 1989). This also resembles the assumptions of the Theory of Planned Behavior (Ajzen, 1991) in which the influence of the social environment is called the

subjective norm. In more detail, Bearden et al. (1989) define the CSII as “the need to identify with or enhance one's image in the opinion of significant others through the acquisition and use of products and brands, the willingness to conform to the expectations of others regarding purchase decisions, and/or the tendency to learn about products and services by observing others or seeking information from others” (p. 473). Hence, the CSII can be seen as supporting variable for the subjective norm, because it investigates the social influence in more detail, but also an additional measurement on its own to investigate the influence of other’s in the context of online purchase behavior.

On the one hand, the CSII deals with the mirroring and copying of other person’s behavior. Hence, consumers that are insecure about their decisions, will copy acquaintances to make a “safe decision”, given they know what they have bought. This means, when a person knows what to buy, it can buy it wherever he or she wants as long as he or she gets the right product or service. On the other hand, the CSII gives also an indication to what degree an individual has the need to ask other persons of their opinion, before making a choice or decision. Both online and offline consumers have possibilities to get reliable information regarding product quality, prices, and other relevant aspects (Kumar & Benbasat, 2006). However, in the online world, consumers have to notice the recommendations and consumer reviews and also trust them (Ivanova, Scholz, & Dorner, 2013; Mudambi & Schuff, 2010; Wang & Benbasat, 2005). However, besides user-generated content, general objective information is also very important and influences the purchase decision (Dedeke, 2016). Because consumers might trust friends, family and other relevant acquaintances more than unknown online sources, the following has been proposed:

H6: The consumers’ susceptibility to interpersonal influences is negatively related to the intention to buy online.

2.6 Conceptual Model

Based on the earlier study of Hansen (2008) as well as the additionally explained factors, constructs and personality traits, a model has been created:

The proposed model is applicable for:

- different product types and categories
- High, moderate and low online purchase intention levels

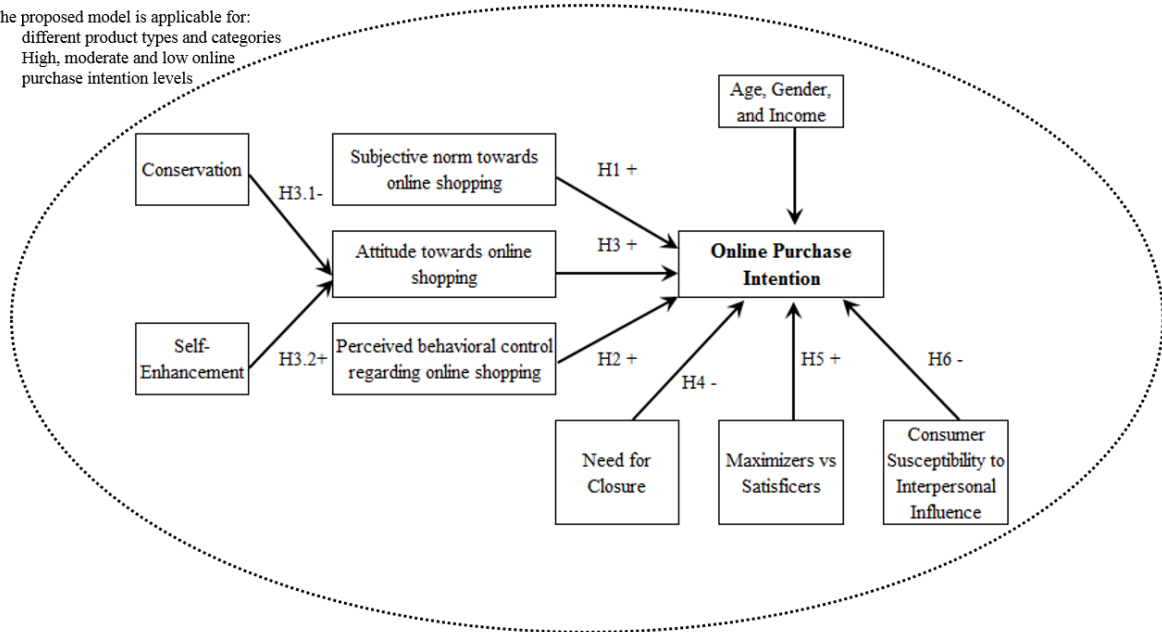


Figure 2: Conceptual model of this study.

The model can be divided into three segments of factors that influence the online purchase behavior of consumers. First, the socio-demographic factors, thus age, gender, and net household income. Secondly, the personality traits segment, which covers the need for closure (H4), maximizer’s tendency (H5), as well as the consumers’ susceptibility to interpersonal influence (H6). And thirdly, the already confirmed work by Hansen (2008) based on the theory of planned behavior (Ajzen, 1991) and values (S. H. Schwartz, 1992); covering hypotheses 1 up to 3. A full overview of all hypotheses is given in table 1.

By carrying out several regression analyses, the single parts of the model will be tested for high purchase intention, moderate purchase intention, and low purchase intention. For all three, two regression analyses will be carried out: (1) one to detect the influence of the values conservation and self-enhancement on the attitude toward online shopping, and (2) one to detect the stepwise influence of the socio-demographic influence (age, gender, and income level), personality traits, and lastly the factors of the TPB. Hence, it will be tested whether the different blocks will increase the explanatory power why consumers prefer to buy products online in a high, moderate, and low intention product context. Furthermore, the results should also help to answer the research questions and the derived hypotheses:

Table 1: Research Questions and Hypotheses

Research Questions	
1.	Do factors that influence online purchase intention differ between services, product categories or types?
2.	Does the influence of the underlying factors on the online purchase intention vary, when the intention is low, moderate or high?
3.	Can personality traits and demographic information (age, gender, household net income) help to create additional valuable segmentations of consumer types?
Hypothesis	
H1:	The subjective norm is positively related to the online purchase intention.
H2:	The perceived behavior control is positively related to the online purchase intention.
H3:	The attitude toward online purchases is positively related to the online purchase intention.
H3.1:	Conservation is negatively related to the attitude toward online purchases.
H3.2:	Self-Enhancement is positively related to the attitude toward online purchases.
H4:	The need for closure is negatively related to the intention to purchase online.
H5:	The need for maximization is positively related to the intention to buy online.
H6:	The consumers’ susceptibility to interpersonal influences is negatively related to the intention to buy online.

3 Method

This section contains the general design of the study, a description of the participants, a complete overview of the measures, thus the relevant variables and constructs and their operationalization, as well as a description of the data analysis and the accompanied steps.

3.1 General Research Design

This present research is a survey study conducted in Germany. The selection of the product type or industry-related questions per participants was based on their initial indication whether they bought a product of the category or industry within the last three years. Furthermore, due to a high chance of indicating the purchase or obtaining of some product categories or industries (i.e. groceries) and lower chances of more specific categories or products (i.e., luxury good), the participants have been assigned randomly to at least 5 and a maximal of 10 product categories and industries. However, triggers have been implemented

into the programming of the questionnaire to guarantee a somewhat even distribution of the participants over the various product categories and industries and therefore comparability of the product categories by aiming for circa 300 participants per category. The completion of the questionnaire took approximately 17 minutes (median of all participants that completed it).

3.2 Survey Outline

In order to get a better overview how the participants have filled out the questionnaire, table 2 below shows in which order the single variables have been tested. The questionnaire can be divided into two parts: (1) the general questions regarding socio-demographic information and stable personality traits and (2) the product and industry-specific questions stemming from the theory of planned behavior. The second part consists of the same constructs of questions for subjective norm, attitude, and perceived behavior control individually phrased for each product or industry. Hence, the first part was for each participant exactly the same, except for the order of the personality trait constructs and values, which were randomized to prevent order effects. However, the second part was determined by the indicated industries in which participants have bought something in the past. For example, if a participant indicated to have bought groceries, clothes, a car, an insurance, a cab and a laptop, he or she will only be asked randomly questions about those products and industries. Still, even if a participant has bought a product in the past, this did not necessarily imply that he/she was asked questions to this particular product in order to prevent fatigue effects. Thus, participants got a random selection of the industries or product categories and not regarding all they have initially indicated.

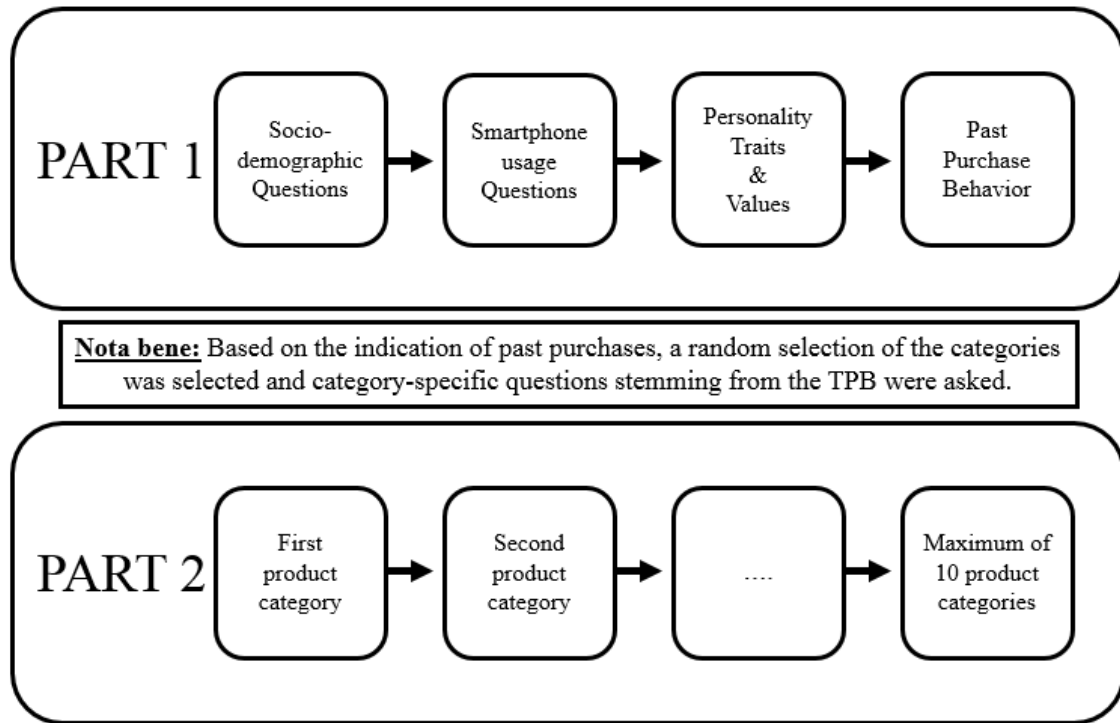


Figure 3: Flowchart to visualize the general route through the questionnaire

3.3 Detailed description of an example route through the questionnaire

In order to fully explain the route one participant had to go when completing the questionnaire, one example route of participants will be described. First, the participant had to answer questions regarding his/her gender, age, and monthly income after taxes. Second, he/she has been asked if he/she occasionally uses a smartphone and if yes, whether he/she also uses it occasionally to buy products and services. The third part consisted of the personality trait constructs “need for closure”, “maximizers vs. satisficers”, and “consumer susceptibility to interpersonal influence”. Those three item batteries have been asked randomly within the scales and also the scales have been randomized in order to prevent order effects. Furthermore, the values measuring “conservation” and “self-enhancement” have been asked here as well. Up to this point, all participants answered the same questions.

The next question gives a full overview of all the product industries and categories and asked in which the participant has bought something in the last three years. Let’s say the participant has bought clothes, plane tickets, music, books, movies, a TV (big consumer electronics) and cinema tickets. This would mean he has bought products or services in seven categories or industries and he would get the online vs. offline intention question for all seven as well as specific questions regarding his/her attitude, subjective norm, and perceived behavioral control of each of the seven categories or industries. However, in order to prevent fatigue effects, the respondents did get a minimum of five item batteries for categories and

industries (in case they indicated less, then the number they indicated), but a total of 10 category- or industry-related item batteries.

3.4 Participants

A total of 1470 aged between 18 and 83 ($M = 43.5$; $SD = 14.1$) participants filled out the online survey. The study stems from a cooperation between the Dutch University of Twente and the German Digital Consultancy and Market Research Institute “Facit Digital” (Munich, Germany). All participants were German-speaking, recruited by a German panel institute and were representative for the online population of Germany regarding their age, gender, and net household income. See the tables 2 and 3 for detailed information.

Table 2: Socio-demographic sample description

Age in Years	Male	Female	Total
18-29	147	146	293
30-39	150	153	303
40-49	189	178	367
50-59	149	126	275
60+	131	101	232
Total	766	704	1470

Due to the representativeness of the sample, the data allows to conclude on a more general basis for the German online population, which is of interest in this study. The three criteria age, gender, and the net household income are common parameters to indicate representativeness and Germany is a good example for an industrialized economy. Furthermore, the limitation of many studies by conducting a research with a sample of students or other recruited samples based on convenience decreases the probability of generalization and weakens its external validity (Bosnjak et al., 2007), which is not the case in this study.

Table 3: Sample description – Net Household Income

Net Household Income	N	%
<500€	46	3.1
500€ < 1000€	104	7.1
1000€ < 1500€	158	10.8
1500€ < 2000€	158	10.8
2000€ < 2500€	211	14.3
2500€ < 3000€	268	18.2
3000€ < 3500€	195	13.3
3500€ < 4000€	144	9.8
>4000€	186	12.6
Total	1470	100

Despite the fact the main focus is on the online purchase intention, the participants also had to indicate their general shopping behavior (see table 4), which gives an indication which product types and services are already successful in the online context and which not. According to Ajzen (1991) and again confirmed by Lim et al. (2016), the purchase intention is a valid predictor of the actual purchase behavior.

Table 4: Sample description – Self-reported purchase behavior

Self-reported purchase behavior	N	M	SD
Plane Tickets	295	4.36	1.75
Power supply or electricity agreement	294	4.35	1.79
Hotel room	300	4.25	1.67
Rent a car	286	4.23	1.68
Train Tickets	301	4.07	1.79
Music	301	4.02	1.68
Telecommunications Contract (cellphone, home line, Internet)	313	4.00	1.73
Movies/DVDs/Series etc.	284	3.94	1.72
Consumer electronics (small: laptop, smartphone, tablet etc.)	301	3.69	1.60
Tickets (Cinema, Concerts, Theatre)	350	3.66	1.68
Literature/Books	308	3.66	1.56
Financial Investment	293	3.61	1.93
Consumer electronics (big: TV, Home Cinema System)	301	3.34	1.61
Banking products	321	3.30	1.89
Insurances	302	3.24	1.87
Household appliances (Refrigerator, washing machine)	326	3.14	1.69
Ordering food at home delivery service	305	3.05	1.80
Clothing / Apparel	331	3.01	1.53
Luxury articles (watches, jewelry)	301	2.90	1.60
Medicines and pharmaceuticals without prescription	310	2.69	1.75
Furniture	303	2.56	1.44
Tickets for public transport (Bus, Metro/Sub/Tube)	301	2.33	1.54
Cars	297	2.10	1.54
Taxi / cab ride	287	1.98	1.47
Drugstore articles	343	1.97	1.37
Groceries	310	1.72	1.23

The question regarding their purchase behavior was measured on a 6-point Likert scale (1=always offline / 6=always online).

The participants were also asked whether they own a smartphone and whether they occasionally use it to buy products or services. The obtained data was not used in the model or analysis, yet it was asked to get a broader context information of the participants.

Table 5: Sample description – Percentage of smartphone usage and mobile commerce

Age in Years	N	Percentage with Smartphone	Percentage M-Commerce
18-29	293	96%	77%
30-39	303	90%	64%
40-49	367	81%	48%
50-59	275	74%	36%
60+	232	67%	26%
Total	1470	83%	52%

The question regarding their age was asked openly, but is displayed in age clusters for convenience reasons.

3.5 Measures

In the measures section, the variables and the operationalization will be described. The operationalization of the variables *attitude*, *subjective norm*, *perceived behavioral control* as well as *conservation* and *self-enhancement* have been completely adopted from the study conducted by Hansen (2008) in order to replicate its findings on a broader scale. However, for the theory of planned behavior variables (*attitude* and *perceived behavioral control*), there have been single items added, in order to shed some more light on the exact rationale for the intention of purchasing offline or online. This section is divided in the description of the independent and dependent variables. For a complete overview of all asked questions, see the appendix, even if not included into the final data analysis. This is in line with the guideline of the American Psychological Association (2010).

3.6 Independent Variables

This section contains the description of the independent variables applied in this study. These variables are the predictors of the dependent variables.

3.6.1 Subjective Norm

The subjective norm of a person can be seen as the individually perceived social pressure or influence to engage in a particular behavior or not (Ajzen, 1991). Furthermore, it is a relevant factor of the theory of planned behavior and a determinant of the behavioral intention (Ajzen, 1991; Hansen, 2008). The scale consists of 2 items and, again, its questions or rather statements were given on a 6-point Likert-scale ranging from *strongly disagree* to *strongly agree*. As for all theory of planned behavior variables, the subjective norm has been asked for each product category or industry separately in order to gain more product category or industry specific indications rather than generally perceived online/offline-norms. The two statements were: “Members of my family think that it is a good idea to *“respective product category / industry”* via the Internet.” and “Most of my friends and acquaintances think that

shopping "*respective product category / industry*" via the Internet is a good idea." Furthermore, the overall subjective norm scale had a sufficient Cronbach's alpha of 0.88. See table 6 for an overview of all scales and their Cronbach's alpha.

3.6.2 Perceived Behavioral Control

The perceived behavioral control is the third determinant of the behavioral intention originally stemming from the theory of planned behavior (Ajzen, 1991; Hansen, 2008). The perceived behavioral control give an indication of the perception of an individual how easy he/she thinks or feel it is to carry out this behavior. The scale consists of 4 items and, again, its questions or rather statements were given on a 6-point Likert-scale ranging from *strongly disagree* to *strongly agree*. Two items were reversed. The perceived behavioral control has also been asked for each product category or industry separately in order to gain more product category or industry specific indications rather than general online/offline-insights. One statement has been added besides the originally asked question by Hansen (2008), asking whether the participants think that they can buy the specific product type immediately without any further problems or hassle if they wanted to. Further statements were: "In general, electronic shopping is very complex" (reversed) or "With electronic shopping of "*respective product category / industry*" it is difficult to order products" (reversed) or "In general, electronic shopping of "*respective product category / industry*" yields (will yield) few problems for me." The overall perceived behavioral control scale had an acceptable Cronbach's alpha of 0.71. See table 6 for an overview of all scales and their Cronbach's alpha.

3.6.3 Attitude

As stated by the theory of planned behavior, the attitude of a person regarding a particular behavior is one of the determinants of their intention to actually engage in this behavior (Ajzen, 1991). The scale consists of 8 items and its questions or rather statements were given on a 6-point Likert-scale ranging from *strongly disagree* to *strongly agree*. The attitude has been asked for each product category or industry separately in order to gain more product category or industry specific indications rather than general online/offline-attitudes. Besides the asked statements to measure the attitude based on Hansen (2008) for the sake of replication and comparability, statements regarding the saving of money and time as well as a better selection of products, overall better products and perceived convenience online were added to this scale. Statements were for example: "Electronic shopping of "*respective product category / industry*" is attractive to me in my daily life" or "When I'm buying "*respective*

product category / industry" via the Internet, I save (1) time / (2) money or (3) find better products / (4) a better selection of products".

Furthermore, the overall attitude scale had an excellent Cronbach's alpha of 0.96. See table 6 for an overview of all scales and their Cronbach's alpha.

3.6.4 Conservation

The value construct *conservation* can be understood as an approach to do things in a certain way, because it always has been done this way, is customary and keeping the world order as it is (Hansen, 2008). This construct contains of originally five values rather than statements: *politeness*, *reciprocation of favors*, *self-discipline*, *social order*, and *accepting portion in life*. In line with Schwartz (1992), the participants had to rate the importance of the values in their live on a 6-point Likert scale ranging from *very unimportant* to *very important*. Furthermore, the values measuring conservation had a Cronbach's alpha of 0.7. In order to increase the reliability of the scale, the item: "*accepting portion in life*" was deleted, which led to a Cronbach's alpha of 0.76 for the four values, which is acceptable. See table 6 for an overview of all scales and their Cronbach's alpha.

3.6.5 Self-Enhancement

The value construct *self-enhancement* focuses on power, wealth, and the effective manner to getting things done. Again, this construct contains of values rather than statements: *successful*, *social power*, *influential*, and *wealth*. In line with Schwartz (1992), the participants had to rate the importance of the values in their live on a 6-point Likert scale ranging from *very unimportant* to *very important*. Furthermore, the values measuring self-enhancement had a sufficient Cronbach's alpha of 0.82. See table 6 for an overview of all scales and their Cronbach's alpha.

3.6.6 Need for Closure

An individual's need for closure was measured by a validated German questionnaire containing 16 questions or items (Schlink & Walther, 2007). The questions or statements were given on a 6-point Likert-scale ranging from *strongly disagree* to *strongly agree*. The scores of three of the sixteen items were inverted due to measuring low rather than high need for closure characteristics. The given statements were for example: "After I've made up my mind about something, I think it is a waste of time to consider different opinions.", "I enjoy the uncertainty of going into a new situation without knowing what might happen." (reversed) or "I would quickly become impatient and irritated if I would not find a solution to a problem immediately."

Furthermore, the overall need for closure scale had an acceptable Cronbach's alpha of 0.77. Originally, the need for closure was measured through five subscales regarding preference for predictability, preference for order, decisiveness, closed mindedness, and discomfort with ambiguity (Webster & Kruglanski, 1994). See table 6 for an overview of all scales and their Cronbach's alpha.

3.6.7 Maximizers vs. Satisficers

The degree of willingness to invest effort into a decision ranges between two extreme ends on a continuum: maximizers and satisficers. This was measured by letting the participants fill out the "Maximization scale", containing 13 items, in this case statements (B. Schwartz et al., 2002). Again, the statements were given on a 6-point Likert-scale ranging from *strongly disagree* to *strongly agree*. The statements were for example: "I never settle for second best.", "I treat relationships like clothing: I expect to try a lot on before I get the perfect fit.", or "No matter what I do, I have the highest standards for myself." The Maximizers scale had a sufficient Cronbach's alpha of 0.86, which indicates a very good internal consistency. See table 6 for an overview of all scales and their Cronbach's alpha.

3.6.8 Consumer Susceptibility to Interpersonal Influence

The construct of "consumer susceptibility to interpersonal influence" gives a general indication about the degree to which an individual makes specific purchases in order to identify with significant others or enhance their own image in the eye of those significant others (Bearden et al., 1989). Furthermore, it also gives an indication regarding the influence of perceived expectations of others on an individual's purchase decision and the degree to which they observe others to learn about their brand and product preferences and seeking behavior (Bearden et al., 1989). Again, the questions were asked on a 6-point Likert scale ranging from *strongly disagree* to *strongly agree*. The "Consumer susceptibility to interpersonal influence scale" contains of 12 items, which are for example: "I rarely purchase the latest fashion styles until I am sure my friends approve of them.", "I often identify with other people by purchasing the same products and brands they purchase." or "If I have little experience with a product, I often ask my friends about the product.". Furthermore, the CSII scale had a Cronbach's alpha of 0.95, which indicates an almost perfect internal consistency. See table 6 for an overview of all scales and their Cronbach's alpha.

By adding the CSII to the subjective norm of the TPB, several dimensions of social aspects are covered. On the one side, the CSII scale (Bearden et al., 1989) covers the general tendency to be influenced by significant others. Whereas, on the other side, the subjective

norm questions have been asked to get an indication of the product category or industry-specific influence, approval, and pressure by significant others. Therefore, the combination of both gives an overall indication by showing whether an individual has a general tendency to be influenced by significant others (CSII) and whether they perceive pressure or approval for online or offline purchase for the respective product category and industry (social norm).

Table 6: Scale descriptives

<i>Measurement scales:</i>	N	N-Items	Rel. (α)	Mean	SD
Subjective Norm	7964	2	0.88	3.40	1.47
Perceived Behavior Control	7964	4	0.71	4.29	1.13
Attitude	7964	8	0.96	3.66	1.44
Conservation*	1470	4	0.76	4.49	0.75
Self-Enhancement*	1470	4	0.82	3.79	0.99
Need for Closure	1470	16	0.77	3.56	0.62
Maximizers	1468	13	0.86	3.08	0.91
Consumer Susceptibility to Interpersonal Influence	1469	12	0.95	2.57	1.16

*All scales are measured on a 6-point Likert scale (1=strongly disagree / 6=strongly agree or *1=very unimportant / 6=very important).*

3.7 Dependent Variables

This section contains the description of the dependent variables as well as the background and rationale of the clustering of the product categories and industries. Furthermore, it contains the results of an ANOVA for the clustering of the product categories and industries.

3.7.1 Online Purchase Intention

The intention is also a single-item question and asked on a 6-point Likert scale ranging from *always offline* to *always online*. The question was as follows: “How do plan or expect to buy “*respective product category / industry*” in the future (in 1 or 2 years)?”. Again, the questions was asked for every product category or industry to which the participants was assigned based on the indication of earlier purchases.

3.7.2 Approach to structure the data by clustering the categories and industries

In order to get a broad scope and a variety of product categories and industries, a selection of 26 product categories and industries has been made based on various industry-reports and personal experience provided by Facit Digital and associate companies.

Due to the assignment based on the indicated purchase behavior in the past, the participants had to answer questions to several product categories and industries. Given that a total of 1470 individuals participated in this study and an aim of approximately 300 completes

per category (ultimately the amount ranged from 280 to 350 completes), the result was a huge amount of raw data, which had to be structured in order to derive meaningful insights. The rather high amount of 26 different product categories and industries demanded a well-grounded approach. Conducting single regression analysis for every product category and industry would lead to a huge amount of insights and findings (resulting in a total number of 7964 cases). Yet, it was chosen to use a more structured approach to cluster the product categories and industries in order to enhance the overview and combine the relevant findings for a broader area of application.

Explanatory data analysis – Research Question (1)

Originally, an explanatory analysis has been done to come up with clusters of the product categories and industries. This approach was seen as useful in order to find an answer to the first research question: “Do factors that influence online purchase intention differ between services, product categories or types?” A meaningful clustering of the product categories and types would have helped to get comprehensive answers for several, comparable product categories and types. However, the results indicated no suitable distinction between the group categories.

Clusters based on the purchase intention level– Research Question (2)

Due to the unsuccessful cluster based on the product types and categories, another approach has been chosen, based on the second research question, which divided the data on basis of the intention levels: “Does the influence of the underlying factors on the online purchase intention vary, when the intention is low, moderate or high?”. Hence, for the sake of comprehensible, structured results and to guarantee a proper overview, the high amount of product categories and industries has been clustered on the basis of low, moderate, and high purchase intention.

First, all means of indicated purchase intentions for the product categories and industries have been calculated and were split in three more or less equally sized groups with two cutting points around a mean of 3 and 4 respectively (see table 7, 8, and 9). Second, to confirm whether there is a significant difference between the three clusters, an ANOVA has been carried out. The ANOVA showed a significant difference between the three clusters [$F = 687.2$; $p < .001$]. Hence, the low intention cluster [$M = 2.62$; $SD = 1.62$] differed significantly from both the moderate intention cluster [$M = 3.63$; $SD = 1.70$] and the high intention cluster [$M = 4.37$; $SD = 1.64$] as well as the moderate intention cluster differed significantly from the

high intention cluster. See table 7, 8, and 9 for an overview of the clusters and assigned product category or industry.

Segmentation and socio-demographic factors – Research Question (3)

The third research question “Can demographic information (age, gender, household net income) help to create additional valuable segmentations of consumer types?” can be answered as well with the approach that proved to be successful. Moreover, the three intention clusters can help to give even more precise implications on how to approach specific consumer segments, based on their personality traits and/or socio-demographic background.

3.7.3 Data analysis

In order to analyze the resulting three clusters of product categories and industries a total of 6 regression analyses have been carried out. The first three were carried out to see whether there are differences between the clusters of high, moderate, and low shopping intention regarding the influence of the values *conservation* and *self-enhancement* on the *attitude toward online shopping*. The second three regression analyses were carried out to analyze the influence of the other factors on online purchase intention. In more detail, these regression analyses were carried out stepwise. The first block included the demographics, thus *age*, *gender*, *net household income*; the second block included the personality traits, thus *need for closure*, *maximizer's vs. satisficers*, and *consumer susceptibility to interpersonal influence*; the third and last block contained the factors stemming from the original model of Hansen (2008) respectively of the Theory of Planned Behavior (Ajzen, 1991), meaning *attitude toward online shopping*, *subjective norm*, and *perceived behavioral control*.

3.7.4 Self-Reported Purchase Behavior

Due to the fact that online shopping and offline shopping are not mutually exclusive (Hand et al., 2009), the questionnaire also asked for the general tendency or habitually way of purchasing the respective products and services. However, it was not included into the model because the scope of this research was on the online purchase intention, hence the future behavior, and the self-reported purchase behavior is rather a description of the status quo. Still, it was used to look at the correlation with the indicated online purchase behavior.

The current behavior was asked as a single-item question on a 6-point Likert scale ranging from *always offline* to *always online*. The question was as follows: “How do you usually buy *respective product category / industry*?”. However, this question regards the status quo and not the future habits, which are of interest in this study.

Table 7: Overview of selected product categories and industries based on high purchase intention

Overview of the product categories and industries	N	M	SD
Plane Tickets	295	4.54	1.62
Power supply or electricity agreement	294	4.53	1.66
Rent a car	286	4.44	1.59
Hotel room	300	4.40	1.61
Movies/DVDs/Series etc.	284	4.34	1.61
Train Tickets	301	4.31	1.68
Music	301	4.24	1.59
Telecommunications Contract (cellphone, home line, Internet)	313	4.22	1.69
<i>Average of high purchase intention cluster</i>		<i>4.37</i>	<i>1.64</i>

The question regarding their purchase intention was measured on a 6-point Likert scale (1=always offline / 6=always online).

Table 8: Overview of selected product categories and industries based on moderate purchase intention

Overview of the product categories and industries	N	M	SD
Tickets (Cinema, Concerts, Theatre)	350	3.99	1.61
Consumer electronics (small: laptop, smartphone, tablet etc.)	301	3.90	1.53
Financial Investment	293	3.81	1.89
Literature/Books	308	3.81	1.57
Consumer electronics (big: TV, Home Cinema System)	301	3.61	1.57
Banking products	321	3.61	1.84
Insurances	302	3.53	1.83
Household appliances (Refrigerator, washing machine)	326	3.46	1.67
Ordering food at home delivery service	305	3.34	1.79
Clothing / Apparel	331	3.19	1.55
<i>Average of moderate purchase intention cluster</i>		<i>3.63</i>	<i>1.70</i>

The question regarding their purchase intention was measured on a 6-point Likert scale (1=always offline / 6=always online).

Table 9: Overview of selected product categories and industries based on low purchase intention

Overview of the product categories and industries	N	M	SD
Luxury articles (watches, jewelry)	301	3.09	1.60
Medicines and pharmaceuticals without prescription	310	2.94	1.74
Tickets for public transport (Bus, Metro/Sub/Tube)	301	2.93	1.72
Furniture	303	2.89	1.47
Taxi / cab ride	287	2.58	1.70
Drugstore articles	343	2.34	1.49
Cars	297	2.31	1.54
Groceries	310	1.88	1.25
<i>Average of low purchase intention cluster</i>		<i>2.62</i>	<i>1.62</i>

The question regarding their purchase intention was measured on a 6-point Likert scale (1=always offline / 6=always online).

4 Results

This section contains the results of the regression analyses carried out to check the hypotheses based on the conceptual model. The results are structured based on the clustering of the product categories in high, moderate, and low online purchase intention.

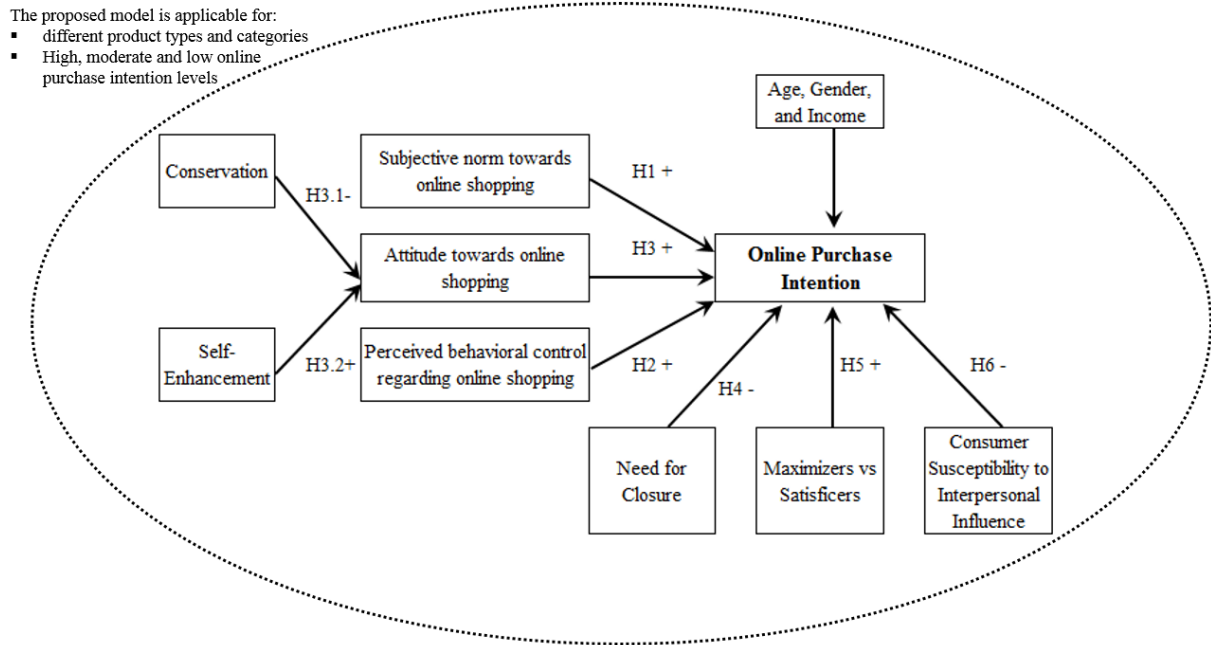


Figure 4: Conceptual model of this study with hypotheses.

4.1 Conservation and Self-Enhancement as predictors of Attitude

This section contains the descriptive statistics of all three intention clusters and correlation and regression analysis results of the values *conservation* and *self-enhancement* on the *attitude toward online shopping*.

Table 10: Descriptive Statistics of all Intention Clusters

Descriptive Statistics split by Intention Cluster									
	Low			Moderate			High		
	N	M	SD	N	M	SD	N	M	SD
Conservation	2452	4.50	0.74	3138	4.49	0.73	2374	4.50	0.72
Self-Enhancement	2452	3.76	1.00	3138	3.76	0.99	2374	3.83	0.98
Attitude	2452	3.03	1.37	3138	3.73	1.39	2374	4.21	1.32

All measured on a 6-point Likert scale (Attitude: 1=strongly disagree / 6=strongly agree; Values: 1=very unimportant / 6=very important)

The aim of these regression analyses was to test whether the proposed value-attitude part of the model holds true for the all three intention clusters. Hence, whether the hypothesized influence of the values *conservation* and *self-enhancement* on the *attitude toward online shopping* can be confirmed for this cluster.

Table 11: Correlations – Values on Attitude across all three intention clusters

Correlations – Values and Attitude split by Intention Cluster			
<i>Measures</i>	Low Attitude	Moderate Attitude	High Attitude
<i>Conservation</i>	.113**	.124**	.127**
<i>Self-Enhancement</i>	.183**	.177**	.151**

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

For the all three intention clusters, significant correlations and regression equations were found. However, the results show that the respective models for each cluster differ slightly. Regarding the influence of the values on the attitude, the low intention cluster has the highest explained variance [$R^2 = .05$, $F(2, 2449) = 70.85$, $p < .001$]. The moderate intention cluster has the same explained variance [$R^2 = .03$, $F(2, 3135) = 47.03$, $p < .001$] as the high intention cluster [$R^2 = .03$, $F(2, 2371) = 39.85$, $p < .001$], yet the moderate intention cluster has a slightly higher F-value than the high intention cluster. Yet, they all reside in the same low range of explained variance.

Table 12: Regression Model Summary – Values on Attitude across all three intention clusters

Regression Model Summary – Conservation and Self-Enhancement on Attitude									
	Low			Moderate			High		
	<i>Adj. R²</i>	<i>F-value</i>	<i>Sig.</i>	<i>Adj. R²</i>	<i>F-value</i>	<i>Sig.</i>	<i>Adj. R²</i>	<i>F-value</i>	<i>Sig.</i>
<i>Values: Self-Enhancement and Conservation</i>	0.05	70.85	.00	0.03	47.03	.00	0.03	39.85	.00
	β	<i>t-value</i>	<i>Sig.</i>	β	<i>t-value</i>	<i>Sig.</i>	β	<i>t-value</i>	<i>Sig.</i>
<i>Conservation</i>	0.04	2.09	.04	0.07	3.60	.00	0.13	5.77	.00
<i>Self-Enhancement</i>	0.21	10.23	.00	0.14	7.20	.00	0.09	4.13	.00

Regarding the two values *conservation* and *self-enhancement*, there were also differences between the clusters with all influences of the values being statistically significant.

The results show that the influence of the value *conservation* on the *attitude toward online shopping* was the highest in the high intention cluster [$\beta = .13$, $t = 5.77$, $p < .001$], followed by the moderate intention cluster [$\beta = .07$, $t = 3.60$, $p < .001$] and the low intention cluster [$\beta = .04$, $t = 2.09$, $p = .04$]. Hence, for all three clusters, the hypothesis 3.1 has to be rejected.

The results of the value *self-enhancement* show the exact opposite pattern, with the highest influence on the *attitude toward online shopping* in low intention cluster [$\beta = .21, t = 10.23, p < .001$], followed by the moderate intention cluster [$\beta = .14, t = 7.20, p < .001$] and the high intention cluster [$\beta = .09, t = 4.13, p < .001$]. Hence, for all three clusters, the hypothesis 3.2 holds true and therefore, has to be confirmed.

4.2 Regression Analysis on Intention Clusters

This section contains the descriptive statistics (see table 13) and correlation (see table 14) and the regression analyses results (see table 15) of the proposed factors, hence demographics, personality traits, and the factors provided by the Theory of Planned Behavior, on the *online purchase intention* of the high, moderate, and low intention cluster.

Table 13: Descriptive Statistics of all Intention Clusters

Descriptive Statistics split by Intention Cluster								
	Low			Moderate			High	
	N	M	SD	N	M	SD	N	SD
<i>Gender</i>	2452	M = 1210 F = 1242		3138	M = 1659 F = 1479		2374	M = 1309 F = 1065
<i>Age</i>	2452	44.9	14.2	3138	44	13.8	2374	43.7
<i>Household Net Income</i>	2452	5.16	2.25	3138	5.32	2.21	2374	5.44
<i>Need for Closure</i>	2452	3.55	0.61	3138	3.55	0.61	2374	3.54
<i>Maximizer's Scale</i>	2452	3.03	0.89	3138	3.04	0.90	2374	3.09
<i>Consumer Susceptibility</i>	2452	2.49	1.11	3138	2.50	1.11	2374	2.58
<i>Subjective Norm</i>	2452	2.78	1.38	3138	3.47	1.41	2374	3.94
<i>Attitude</i>	2452	3.03	1.37	3138	3.73	1.39	2374	4.21
<i>PBC</i>	2452	3.97	1.10	3138	4.40	1.11	2374	4.49
<i>Online Purchase Intention*</i>	2452	2.62	1.62	3138	3.63	1.70	2374	4.37
<i>Self-reported Purchase Behavior*</i>	2452	2.28	1.54	3138	3.37	1.74	2374	4.15

All scales are measured on a 6-point Likert scale (1=strongly disagree / 6=strongly agree or *1=always offline / 6=always online), except for gender, age, household net income. Gender (1 = male; 2 = female), Age was an open question (see also table 2 for age and gender), and the household net income was measured on a 9-scale question ranging from "under 500€" up to "above 4000€" in steps of 500€, see also table 3 and the appendix for a full overview of the household net income question and answers.

The correlations table (see table 14) shows that some of the personality traits are not significantly correlated to the online purchase intention. However, the variables stemming from the Theory of Planned Behavior show significant correlations. The high correlation between *online purchase intention* and *self-reported purchase behavior* are in line with Dedek (2016) and justifies the choice to use the intention, because this question regards the future. Furthermore, the *self-reported purchase behavior* gives an indication of their general

behavior right now, hence whether a tendency toward of offline or online, but the *online purchase intention* gives an indication what they expect in the next years to do. Hence, the high correlations shows that their current behavior is highly related to their future behavior, but might adapt or change somewhat.

Additionally, due to very high correlations between the variables, the variables were also tested regarding collinearity. The results indicate no signs of collinearity as the tolerance values were too high and the variance inflation factor was too low. For an overview of the tolerance and VIF-values, see the appendix.

Table 14: Correlations of all Intention Clusters

Correlation between Online Purchase Intention Cluster and Independent Variables			
<i>Measures</i>	Low Intention	Moderate Intention	High Intention
<i>Gender</i>	-.046*	-.077**	-.050*
<i>Age</i>	-.107**	-.069**	-.01
<i>Household Income</i>	.100**	.133**	.093**
<i>Need for Closure</i>	.056**	.03	.01
<i>Maximizer's Scale</i>	.250**	.150**	.02
<i>Consumer Susceptibility</i>	.243**	.090**	-.01
<i>Attitude</i>	.367**	.461**	.407**
<i>Subjective Norm</i>	.344**	.381**	.325**
<i>Perceived Behavioral Control</i>	.131**	.252**	.297**
<i>Self-Reported Purchase Behavior</i>	.821**	.879**	.882**

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

The aim of this regression analysis was to test whether the proposed model holds true for the respective intention cluster. Thus, whether the stepwise addition of new factors, in detail the demographics, personality traits, and the factors of the Theory of Planned Behavior increase the explained variation and in turn explain the influence of the factors on the online purchase intention.

4.2.1 General results of the Intention Models

The results show that for each cluster the third model has by far the highest explained variance, but the degree of the explained variance differs between the respective models. Regarding the influence of the factors on the *online purchase intention*, the high intention cluster has the highest explained variance [$R^2 = .58$, $F(9, 2364) = 367.85$, $p < .001$], followed by the moderate intention cluster [$R^2 = .57$, $F(9, 3128) = 464.74$, $p < .001$]. In comparison, the low intention cluster has the lowest explained variance [$R^2 = .51$, $F(9, 2442) = 285.28$, $p < .001$], yet also the lowest explained variance is still high. Hence, an increase of the *online*

purchase intention comes with an increase of the explained variance. This might be due to the decisiveness of the consumers in the high intention cluster to buy online and no need for further help or guidance from their surroundings.

In detail, the table 15 shows that in the first model, the demographics on their own do not sufficiently explain the online purchase intention. The same holds for the second model when the personality traits were added to the demographics, with only a small increase of the explained variance. However, in the third model, when the factors of the Theory of Planned Behavior were also added, the explained variance increases to above 50%. This indicates that this model does explain more than half of the detected variance and is able to give sufficient answers to the question which factors do influence the *online purchase intention* the most.

Due to the fact that the highest adjusted change in R^2 was always in the third model, the main focus is on the variables of this model in the next section. However, the other two models will be discussed as well when applicable and worth reporting.

4.2.2 Demographics

In the first model, the demographics were tested alone, but did not provide a great degree of explained variance. Still, the results in all three models show interesting findings regarding the demographics, namely age, gender, and household net income. These findings can be used to create segments that give further practical insights in how to approach potential online consumers.

Gender

In all models, *gender* had a small yet negative significant influence on the *online purchase intention* in the high and moderate intention cluster. However, in the low intention cluster, *gender* had only a small negative significant influence in the first model on *online purchase intention*. The results show that especially in the moderate and high intention cluster, women had a slightly lower *online purchase intention* than men.

Age

The influence of *age* on the *online purchase intention* was mostly not significant. The only statistically significant was negative and found in the first model for the low and moderate intention cluster and in the third model in the high intention cluster. Hence, even though rather randomly significant, the older the consumers are, the smaller their *online purchase intention*.

Household net income

In all models, *household net income* had a positive significant influence on the *online purchase intention* in the high, moderate, and low intention cluster, except for the low intention cluster in the third model. Hence, generally, it can be stated that the higher the *household net income*, the higher the *online purchase intention*.

4.2.3 Personality Traits

Regarding the personality trait factors, there were also differences between the clusters in terms of statistical significance and effect size. These will be discussed in this section. Due to the fact that the personality traits were added in the second model, only the second and third model will be discussed.

Need for Closure

The statistically significant negative influence of the *need for closure* on the *online purchase intention* was highest in the third model in the low intention cluster [$\beta = -.06$, $t = -3.55$, $p < .001$], followed by the moderate intention cluster [$\beta = -.04$, $t = -3.37$, $p < .001$] in the third model and the low intention cluster in the second model [$\beta = -.04$, $t = -1.93$, $p = .05$]. However, there was no statistically significant influence of the *need for closure* on the *online purchase intention* in the high intention cluster [$\beta = -.02$, $t = -1.59$, *n.s.*] of the third model. Furthermore, the correlations (see table 14) indicate that only in the low intention cluster was a statistically significant correlation between *online purchase intention* and *need for closure*. The lack of significant correlations might be due to the fact that the correlations are on a single item-to-item basis, but the regression analysis takes into account all added variables. Hence, in this context the *need for closure* might nevertheless have a significant influence on the *online purchase intention* within the low intention cluster.

Maximizers vs. Satisficers

In the third model, the *need for maximization* showed the exact opposed pattern with the highest and only statistically significant negative influence was found in the high intention cluster [$\beta = -.05$, $t = -2.49$, $p = .01$]. The moderate [$\beta = .00$, $t = -0.09$, *n.s.*] and low intention cluster [$\beta = .03$, $t = 1.37$, *n.s.*] indicated no significant influence on the *online purchase intention*. However, in the second model, the *need for maximization* had a positive statistical influence on the *online purchase intention* in both the low [$\beta = .16$, $t = 5.84$, $p < .001$] and moderate intention cluster [$\beta = .15$, $t = 5.97$, $p < .001$].

Table 15: Regression Model Summary – Influence of the Variables on the Purchase Intention across all Intention Clusters

Regression Model Summary – Influence of the Variables on the Purchase Intention									
	Low			Moderate			High		
	<i>Adj. R²</i>	<i>F-value</i>	<i>Sig.</i>	<i>Adj. R²</i>	<i>F-value</i>	<i>Sig.</i>	<i>Adj. R²</i>	<i>F-value</i>	<i>Sig.</i>
<i>1: Demographics</i>	0.02	20.01	.00	0.03	30.43	.00	0.01	8.50	.00
<i>2: Demographics + Personality Traits</i>	0.08	36.78	.00	0.04	23.43	.00	0.01	5.19	.00
<i>3: Demographics + Personality Traits + TPB</i>	0.51	285.28	.00	0.57	464.74	.00	0.58	367.85	.00
Variable per Model	β	<i>t-value</i>	<i>Sig.</i>	β	<i>t-value</i>	<i>Sig.</i>	β	<i>t-value</i>	<i>Sig.</i>
Model 1: Demographics									
<i>Gender</i>	-0.04	-2.05	.04	-0.07	-3.78	.00	-0.04	-1.96	.05
<i>Age</i>	-0.11	-5.62	.00	-0.08	-4.65	.00	-0.02	-1.05	.29
<i>Household Net Income</i>	0.10	5.18	.00	0.13	7.47	.00	0.09	4.37	.00
Model 2: Demographics + Personality Traits									
<i>Gender</i>	-0.01	-0.34	.73	-0.05	-3.03	.00	-0.04	-2.12	.03
<i>Age</i>	-0.01	-0.37	.72	-0.03	-1.74	.08	-0.02	-1.05	.29
<i>Household Net Income</i>	0.09	4.57	.00	0.13	7.19	.00	0.09	4.51	.00
<i>Need for Closure</i>	-0.04	-1.93	.05	0.01	0.27	.79	0.04	1.53	.13
<i>Maximizers</i>	0.16	5.84	.00	0.15	5.97	.00	0.04	1.22	.22
<i>Consumer Susceptibility</i>	0.14	5.24	.00	-0.03	-1.29	.20	-0.06	-1.99	.05
Model 3: Demographics + Personality Traits + TPB									
<i>Gender</i>	0.00	-0.16	.87	-0.04	-3.72	.00	-0.05	-3.77	.00
<i>Age</i>	0.00	0.23	.82	0.00	-0.13	.90	-0.03	-2.21	.03
<i>Household Net Income</i>	0.02	1.34	.18	0.05	3.97	.00	0.03	2.16	.03
<i>Need for Closure</i>	-0.06	-3.55	.00	-0.04	-3.37	.00	-0.02	-1.59	.11
<i>Maximizers</i>	0.03	1.37	.17	0.00	-0.09	.93	-0.05	-2.49	.01
<i>Consumer Susceptibility</i>	0.01	0.58	.56	-0.03	-2.00	.05	-0.04	-1.88	.06
<i>Subjective Norm</i>	0.13	5.25	.00	0.07	3.87	.00	0.02	0.91	.36
<i>Attitude</i>	0.59	20.94	.00	0.68	31.56	.00	0.74	30.57	.00
<i>Perceived Beh. Control</i>	0.01	0.39	.70	0.02	1.52	.13	0.02	0.82	.41

Consumer susceptibility to interpersonal influence

In the third model, the negative influence of the personality trait *consumer susceptibility to interpersonal influence* on the *online purchase intention* was highest in the

moderate intention cluster [$\beta = -.03, t = -2.00, p = .05$]. For both the high intention cluster [$\beta = -.04, t = -1.88, n.s.$] and low intention cluster [$\beta = .01, t = .58, n.s.$], the influence was not statistically significant. However, in the second model, there was a positive influence on the *online purchase intention* in the low intention cluster [$\beta = .14, t = 5.24, p < .001$] and a negative influence in the high intention cluster [$\beta = -.06, t = -1.99, p = .05$].

4.2.4 Theory of Planned Behavior

The influence of the factors stemming from the Theory of Planned Behavior varied also between the three clusters, which will be discussed in the upcoming sections in more detail. Due to the fact that the variables of the Theory of Planned Behavior were added in the third model, only these results are discussed.

Subjective Norm

The influence of the *subjective norm* on the *online purchase intention* was the highest in the low intention cluster [$\beta = .13, t = 5.25, p < .001$], followed by the moderate intention cluster [$\beta = .07, t = 3.87, p < .001$]. However, the influence of the *subjective norm* was not statistically significant for the high intention cluster [$\beta = .02, t = .91, n.s.$].

Attitude

Regarding the *attitude toward online shopping*, the high intention cluster showed the highest influence on the *online purchase intention* [$\beta = .74, t = 30.57, p < .001$], followed by the moderate intention cluster [$\beta = .68, t = 31.56, p < .001$] and the low intention cluster [$\beta = .59, t = 20.94, p < .001$]. Still, the *attitude toward online shopping* had the highest influence of all factors within all clusters.

Perceived Behavioral Control

In comparison, the *perceived behavioral control* had no statistically significant influence at all on the *online purchase intention* for none of the three clusters, neither the high intention cluster: [$\beta = .02, t = .82, n.s.$], nor the moderate intention cluster [$\beta = .02, t = 1.52, n.s.$] and low intention cluster [$\beta = .01, t = .39, n.s.$].

4.2.5 Self-Reported Purchase Behavior and Online Purchase Intention

The correlations from table 14 indicated a very high correlation between the *self-reported purchase behavior* and the *online purchase intention* across the low ($r = .821$), moderate ($r = .879$), and high cluster ($r = .882$). This is in line with Dedeker's (2016) statement that the intention is a good predictor of the actual behavior.

Table 16: Research Questions and Hypotheses check for all intention cluster

Research Questions				
1.	Do factors that influence online purchase intention differ between services, product categories or types?	/		
2.	Does the influence of the underlying factors on the online purchase intention vary, when the intention is low, moderate or high?	✓		
3.	Can the demographic information (age, gender, household net income) help to create additional valuable segmentations of consumer types?	✓		

	Hypothesis	Intention		
		Low	Moderate	High
H1:	The subjective norm is positively related to the online purchase intention.	✓**	✓**	×
H2:	The perceived behavior control is positively related to the online purchase intention.	×	×	×
H3:	The attitude toward online purchases is positively related to the online purchase intention.	✓**	✓**	✓**
H3.1:	Conservation is negatively related to the attitude toward online purchases.	×	×	×
H3.2:	Self-Enhancement is positively related to the attitude toward online purchases.	✓**	✓**	✓**
H4:	The need for closure is negatively related to the intention to purchase online.	✓**	✓**	×
H5:	The need for maximization is positively related to the intention to buy online.	×	×	×
H6:	The consumers' susceptibility to interpersonal influences is negatively related to the intention to buy online.	×	✓*	×

** Statistically significant at the 0.01 level. * Statistically significant at the 0.05 level.

5 Discussion

This section contains the discussion of the research questions, the findings in relation to Hansen (2008) and the results of the carried out regression analysis in order to test the proposed model as well as the discussion of proposed hypotheses. Again, the discussion of the results is divided on basis of independent variables rather than the intention cluster.

5.1 Research Questions

The research questions will be discussed and if possible answered in this section.

- (1) *“Do factors that influence online purchase intention differ between services, product categories or types?”*

This research question could not be answered, because the attempts to cluster the services, product categories and types by conducting an explanatory analysis indicated no useful clusters or groups. Hence, a different approach has been chosen, which yielded interesting and useful information.

- (2) *“Does the influence of the underlying factors on the online purchase intention vary, when the intention is low, moderate or high?”*

The results show that there are interesting differences of the influence of the proposed factors on the *online purchase intention*. Due to the huge amount of results, the next two sections will discuss the question in more detail and for every tested factor individually.

- (3) *“Can the demographic information (age, gender, household net income) help to create additional valuable segmentations of consumer types?”*

The third question is of interest for segmentation of the consumers for marketing purposes. The data gives implications how to approach consumers regarding products from different clusters. For example, product categories and types, which are in the low intention cluster (i.e. groceries), can be created independent of gender or age, but products of the high intention cluster (i.e. train or plane tickets) are less interesting for women and older consumers, hence they should be approached in a different way.

5.2 Values as predictors of the attitude towards online purchases

Within all three clusters, the influence of both values *conservation* and *self-enhancement* were positive on the *attitude toward online shopping*. There are also small differences between the clusters, but all three are significant and show that they have a small yet relevant effect on the *attitude*. However, the results show that there might be more promising predictors of the *attitude toward online shopping*.

A possible explanation for the findings might be the presence of a halo effect. The rather low, yet significant, correlations between both values and the attitude, but still a very high statistical significance seem to be due to a general high answering of the participants for the value statements. This gives room for critique on the model of Hansen (2008), which stated that values are a valuable predictor of the attitude of consumers. In this context, it was less helpful and only explained a small fraction of the underlying reasons of the *attitude toward online shopping*. However, the results of Hansen (2008) were also equally small in effect size and influence, yet also significant. Nevertheless, the results show that there must be more promising factors and approaches to explain the *attitude toward online shopping* than values.

Conservation

In detail, the derived hypotheses [H3.1] predicted a negative influence of *confirmation* on the *attitude* and therefore, it had to be rejected. This result is not in line with the results of Hansen (2008) and against the expectation and argumentation. Furthermore, the fact that the value *conservation* or holding conservative values as guiding principles in life, influenced the *attitude toward online shopping* positively is surprising at first, yet the influence is rather low. However, even for conservative people, nowadays the Internet has arrived in our daily lives and seems to be not in conflict with conservative beliefs anymore or at least less than it was earlier. Hence, it might have a more positive influence on the *attitude toward online shopping*. Another explanation could be the presence of a cognitive dissonance, because even though they try to hold on to traditional values, their behavior does not have to be in line with their beliefs. Furthermore, it is socially accepted to buy products online and actually, nobody despite the seller and the postman might know what, when and how somebody bought something.

Self-Enhancement

Regarding the value *self-enhancement*, the expectations were met and its influence on the *attitude* was positive, which confirmed the hypothesis [H3.2]. The result is also in line with the finding of Hansen (2008). Still, the explained variance and the effect size were very low and show that the predictors only explain a small fraction of the attitude. However, the results regarding the value *self-enhancement* are in line with the expectations and show the usefulness and convenience of the Internet to reach a particular goal when acting in the interest of oneself. Still, also for this value, the influence on the attitude was marginally.

5.3 Predictors of the Online Purchase Intention

This section contains the discussion of the second research question and the derived hypotheses as well as a broader discussion of the influence of the factors on the *online purchase intention*. First, the clusters will be discussed with all relevant factors being brought in relation to each other and practical implications given. Second, the demographics, personality traits, and theory of planned behavior will be discussed individually. This sections ends with the future research directions and limitations of the study.

Generally, the results show that there were relevant differences between the three clusters regarding the explanatory power of the proposed model. The model with all factors included (demographics, personality traits, and the Theory of Planned Behavior) explained the most variance in all three clusters. However, despite the fact that among all clusters a general high degree of explained variance was present, the degree of explained variance decreases with a decrease of the reported intention. Hence, the high intention cluster showed the most explained variance, the moderate intention cluster the second highest, and the low intention cluster the “lowest” but still high explained variance. Concluding, the higher the online purchase intention, the more the proposed model and its chosen factors explain.

High Intention Cluster

The underlying factors, why products and services have a high intention to be bought online, are positively influenced by the consumers' attitude and the household net income, as well as negatively influenced by the age, gender, and need for maximization. This means that the segment of consumers that do buy these products preferably online can be described as: younger men with a high household net income and a positive attitude toward online shopping, but generally not looking for the perfect product when it at least meets a set of particular minimum criteria.

In total, five of the nine chosen factors have a significant influence on the online purchase intention in this cluster. However, this means that neither the subjective norm and consumer susceptibility to interpersonal influence, nor the need for closure and perceived behavior control had a significant influence here.

Practical implications for these product categories would be to focus especially on women and older people as much as directing the message on the individual itself rather than on significant others. For people, who do not have a high household income, focus on the price advantages online and show the endless options and ease of use and convenience to find a suitable product online.

Moderate Intention Cluster

The underlying factors, why products and services have a moderate intention to be bought online, are positively influenced by the consumers' attitude, subjective norm, and the household net income, as well as negatively influenced by the need for closure, consumer susceptibility to interpersonal influence, and gender. This means that the segment of consumers that do buy these moderate online purchase intention products can be described as: men with a high household net income, positive perception of online shopping in their environment (subjective norm) and a general positive attitude toward online shopping. However, if the opinions held by significant others (CSII) matter to a greater extent or if they have an aversion to uncertainty or ambiguous situations (NFC), it lets the consumer buy the products offline rather than online.

In total, four of the nine chosen factors have a significant influence on the online purchase intention in this cluster. However, this means that neither age, nor the need for maximization and perceived behavior control had a significant influence here.

Practical implications for these product categories would be to focus especially on women and use messages that convey a sense of belonging and togetherness with significant others, such as family or friends, and show how they purchased such goods online and how they had much more time for each other because of it. Furthermore, show that the products can be easily bought, without ambiguity and with clear decisional aids (e.g. recommendations, filtering options), easy check out procedure and convenient ordering of the same products over and over again. Again, for people, who do not have a high household income, focus also on the price advantages online and show the endless options and ease of use and convenience to find a suitable product online.

Low Intention Cluster

The underlying factors why products and services have a low intention to be bought online are positively influenced by the consumers' attitude and subjective norm, as well as negatively influenced by the need for closure. This means that the segment of consumers that do buy these moderate online purchase intention products can be described as: all consumers that do have a positive perception of online shopping in their environment (subjective norm) and a general positive attitude toward online shopping. However, if they do have a high aversion to uncertainty or ambiguous situations (NFC), the consumer might prefer offline above online in this situation.

In total, only three of the nine chosen factors have a significant influence on the online purchase intention in this cluster. However, this means that neither any of the demographic factors (age, gender, and household net income), nor the need for maximization, consumer susceptibility to interpersonal influence and perceived behavior control had a significant influence here.

Practical implications for these product categories would be to create various personas, as the results imply that no demographic factor had any influence. Furthermore, show images of different groups to imply that it is socially accepted and beneficial to purchase these products via the Internet rather than offline. Again, due to the negative influence of the need for closure, it is advisable to show that the products can be easily bought, without ambiguity and with clear decisional aids, easy check out procedure and convenient ordering of the same products over and over again.

5.3.1 Demographics

The demographics showed some interesting, but not surprising results. Generally, it can be concluded that men are more in favor of shopping online than women. This was confirmed across all tested models. This might be due to the fact that women still do enjoy shopping more than men and therefore, they prefer to go to brick-and-mortar stores. Furthermore, the results showed that the age of the consumers does also play a role. Younger consumers are more willing to buy online than older; put differently, the older the consumer, the smaller the intention to buy online. Hence, older consumers must be approached more directly by advertisements and marketing to be encouraged to shop online. Additionally, the results indicated that the household net income did also influenced the *online purchase intention* positively. Concluding, the more money a household is earning, the higher their willingness to buy online. One possible explanation might be that they have to work a lot to earn such a high salary and therefore, they prefer to buy online due to its convenience and high assortments of all product types and categories.

5.3.2 Personality Traits

Regarding the personality trait, there are also some possible explanations for the obtained results, which will be discussed in more detail in this section.

Need for Closure

The results of the *need for closure* for the moderate and low intention cluster showed that the lower the *need for closure* of the participants, the higher the intention to shop online. This implies that there is an increase in *online shopping intention* when consumers can handle

ambiguity and uncertainty in shopping situations for products and services that are generally seen as moderately likely to shop online. A possible reason for the insignificant influence of the *need for closure* in the high intention cluster could be that consumers that already do have a high intention to buy online, might see it as a proper way to buy their products, developed heuristics and techniques and therefore, do not see it as ambiguous, uncertain or hassle at all.

Still, the influence of *need for closure* on the *online purchase intention* was quite low or even not relevant at all, which implies that the results should be seen with caution.

Maximizers vs. Satisficers

The personality trait *need for maximization* or *maximizers vs. satisficers* was expected to be positively related to the *online purchase intention*, meaning that an increase of the one would also lead to an increase in the other. The surprisingly irrelevant results of the influence of *the need for maximization* were not expected, but might be due to the fact that consumers do not see the decision as either online or offline, but regard both as valuable ways, which are dependent on the situation rather than a general habitus. Moreover, in the high intention context, the *need for maximization* had a negative relation with the *intention to buy online*. This means that consumers, who want to maximize their decision, do not go online to purchase in this context, but prefer to buy “offline”. The other way around, consumers, who are satisfied with an acceptable decision, would go online to buy their product.

Further, this might have two more possible reasons: Either the participants that do love to maximize their search for products and services and try to find the best products prefer to shop offline; or consumers that have a high intention to shop online because they regard online shopping as less pleasing and more goal-oriented, thus finding a suitable product as fast as possible and therefore go online to shop and using filters in online shops to find a suitable product without much effort. Additionally, the willingness to shop products and services online with a general moderate or low intention is independent of participants need to maximize those purchases.

Consumer Susceptibility of Interpersonal Influence

The expectation that the higher the individual scores on this personality trait, the lower the intention to shop online, was only confirmed by the results for the moderate intention cluster. On the one hand, this implies that consumers that are easily influenced by significant others, depend their decision on what they observed and this seems to be not per se either offline or online. However, it seems that for low intention products, they do also buy them offline and for high intention products, they do also buy them online, hence the lack of

significant results in those two clusters. Yet, the moderate intention cluster is the one that creates difficulties for consumers with a high susceptibility, because these products are not easily assignable to usual offline or online categories. So, when in doubt, both have their advantages. On the one hand, offline has the advantages that they get more direct feedback from their environment and that they can rely their decision on products that are selected by other significant people or stores that they trust and staff members or other buyers in the store could help them to find suitable products. However, when significant others express their preference for online shopping, they might do it as well, hence advertisements and marketing should show opinion leaders and testimonials how they shop particular goods online. On the other hand, people that know what they want and that are more self-confident prefer to shop online, because they do not rely their decision so much on the opinion of others and can order the products without much effort. However, the results did not confirm the hypothesis for the low and high intention clusters. As already concluded, this means that the degree to which a consumer is influenced by significant others does not play a role here, because those product types have a general low or high online shopping intention anyway.

5.3.3 Theory of Planned Behavior

The Theory of Planned Behavior (Ajzen, 1991) and its factors were the most important construct and led to a huge enhancement of the explained variance in the results.

Subjective Norm

The *subjective norm* of a participant was expected to exert a positive influence on the *online purchase intention*. Hence, the higher the *subjective norm* of an individual, the higher their *online purchase intention*. The fact that the *subjective norm* was only relevant for the moderate and low but not high intention cluster, could be interpreted as a finding that consumers consider the held norms around them regarding the topic at hand, hence online shopping, as more important, when they are not persuaded yet, and try to look at people they trust, such as their friends and families. In other words, this finding shows that for participants that already have a high intention to buy online, the influence of friends and family played no significant role.

This is surprising as the *subjective norm* and *consumer susceptibility to interpersonal influence* might be somewhat related, but show different results.

Subjective Norm x Consumer Susceptibility of Interpersonal Influence

The surprising differences between the *subjective norm* and *consumer susceptibility to interpersonal influence* could be interpreted as follows: The *subjective norm* has been asked

product-specific, whereas the personality trait was asked in general, hence the general tendency can be different to a specific situation. For example, when someone is an expert for electronic devices and generally relies his decision on others; when buying electronic devices, the person will not be influenced by others, but when buying clothes, for example, he/she will be influenced. Furthermore, the *subjective norm* gives only an indication of an individual's perception of the norm, but the *CSII* measures the actual influence the opinions held by significant others exert on the individual.

Attitude toward online shopping

The *attitude toward online shopping* was expected to be positively related to the *online purchase intention*. Hence, the more positive an individual is about shopping online, the higher the probability that the individual will shop online. This proposed positive relation did hold true for all three clusters and therefore, hypothesis 3 can be generally confirmed. This factor was also the most crucial and influential of all the factors on the *online shopping intention*, which is not that surprising actually, because a negative attitude would lead to a lower probability to shop online.

In more detail, the fact that the *attitude* was by far the most important factor shows that the underlying factors that influence the attitude are of special interest.

Perceived Behavioral Control

The *perceived behavioral control* was also expected to have a positive influence on the intention to buy online. Meaning that individuals that regard themselves as capable to shop online would also have a higher intention to shop online. The results showed that the proposed positive relation between the *perceived behavioral control* and *online purchase intention* did not hold true for any of the three clusters and therefore, hypothesis 2 can be generally rejected.

There are two possible explanations for this finding: (1) online shopping is nowadays a normal way to purchase products and services, which in turn means that most consumers are capable of it and see no problem in the act itself, but might not see it as more beneficial, convenient or enjoyable; (2) furthermore, the sample in this study is representative for the German online population, which means that they are online affine and use the Internet regularly, which might imply that they see no problems using the Internet for purposes as online shopping.

5.4 Future Research Directions

Future studies that deal with the same issue and test only single product categories and industries should rephrase the items of the personality trait scales as well to cover for the possible effects of the TPB items that had a much higher correlation than the items of the personality traits. Nevertheless, the influence of the attitude was by far the most influential variable and the focus of future studies should be on the underlying factors of the attitude toward online shopping. This would help to get more hands on implications that help to persuade consumers to buy more products online.

Even though, the sample was representative for the German online population, the results might be viewed with caution, because the online population might be more affine to online shopping, which might have influenced the results in favor of online shopping. It would be of interest to see whether a study with national representative Germans or participants from other countries would confirm the obtained results as well.

5.5 Limitations of the Study

The proposed model is just one way to arrange the relationship and causal paths. The chosen causal paths and relations within the model might be also different. For example, the bidirectional influence of the *subjective norm* and the *consumer susceptibility to interpersonal influence* was not further explored in this model as well as the effects between the personality traits as such and between the personality traits and the TPB variables.

Another major limitation of the study was the huge amount of product categories or industries about which some participants had to answer questions. The fatigue effects might influence the rating of the factors on the online purchase intention. Furthermore, the rephrased questions of the TPB were asked over and over again, which might also led the participants to answer not truthfully anymore. Although the clustering makes it more convenient to analyze the data lots of data gets lost. In more detail, special category-related results cannot be drawn and still, some categories are under- or overrepresented due to more answers and/or general higher or lower intention than the mean (e.g. groceries).

6 Conclusion

Based on the results, several conclusions can be drawn. First, the addition of the Theory of Planned Behavior enhanced the overall predictability and explained the most of the underlying reasons of the intention to buy online in comparison to the demographics and personality traits. This might be due to the fact that the items of the Theory of Planned

Behavior were rephrased to the specific product categories and industries and not general personality traits. Therefore, the correlations were much higher and the explanatory power increased.

Second, the results showed that the higher the intention to buy online, the higher the explained variance, based on the findings between the clusters. This is in favor of the proposed model and shows that the factors have been chosen correct and led to more explanatory factors and more significant results. Furthermore, the high correlation between the online purchase intention and self-reported purchase behavior shows that the purchase intention is a valid indicator to predict actual purchase behavior.

7 References

- AGOF. (2015). *internet facts 2015-05*. Retrieved from https://www.agof.de/download/Downloads_Internet_Facts/Downloads_Internet_Facts_2015/Downloads_Internet_Facts_2015-05/05-2015_AGOF_internet_facts_2015-05.pdf?72d66c
- Agrebi, S., & Jallais, J. (2015). Explain the intention to use smartphones for mobile shopping. *Journal of Retailing and Consumer Services*, 22, 16–23. <http://doi.org/10.1016/j.jretconser.2014.09.003>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [http://doi.org/10.1016/0749-5978\(91\)90020-T](http://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I., Fishbein, M., Atomic, I., Agency, E., Federal, T., & Commission, T. (1980). THEORY OF REASONED ACTION / THEORY OF PLANNED BEHAVIOR. *Social Psychology*, 2007, 67–98. Retrieved from http://hsc.usf.edu/~kmbrown/TRA_TPB.htm
- American Psychological Association. (2010). *Publication manual of the American psychological association* (6th ed.). Washington, DC: APA.
- Bearden, W. O., Netemeyer, R. G., & Teel, J. E. (1989). Measurement of Consumer Susceptibility to Interpersonal Influence. *Journal of Consumer Research*, 15(4), 473–481. <http://doi.org/10.1086/209186>
- Bian, Q., & Forsythe, S. (2012). Purchase intention for luxury brands: A cross cultural comparison. *Journal of Business Research*, 65(10), 1443–1451. <http://doi.org/10.1016/j.jbusres.2011.10.010>
- Bosnjak, M., Galesic, M., & Tuten, T. (2007). Personality determinants of online shopping: Explaining online purchase intentions using a hierarchical approach. *Journal of Business Research*, 60(6), 597–605. <http://doi.org/10.1016/j.jbusres.2006.06.008>
- Brown, M., Pope, N., & Voges, K. (2003). Buying or browsing?: An exploration of shopping orientations and online purchase intention. *European Journal of Marketing*, 37(11/12), 1666–1684. <http://doi.org/10.1108/03090560310495401>
- Chiu, C. M., Wang, E. T. G., Fang, Y. H., & Huang, H. Y. (2014). Understanding customers' repeat purchase intentions in B2C e-commerce: The roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal*, 24(1), 85–114. <http://doi.org/10.1111/j.1365-2575.2012.00407.x>
- Choi, J., & Geistfeld, L. V. (2004). A cross-cultural investigation of consumer e-shopping adoption. *Journal of Economic Psychology*, 25(6), 821–838. <http://doi.org/10.1016/j.joep.2003.08.006>
- Clemes, M. D., Gan, C., & Zhang, J. (2014). An empirical analysis of online shopping adoption in Beijing, China. *Journal of Retailing and Consumer Services*, 21(3), 364–375. <http://doi.org/10.1016/j.jretconser.2013.08.003>
- de Kervenoael, R., Elms, J., & Hallsworth, A. (2014). Influencing online grocery innovation: Anti-choice as a trigger for activity fragmentation and multi-tasking. *Futures*, 62, 155–163. <http://doi.org/10.1016/j.futures.2014.04.004>
- Dedeke, A. (Nick). (2016). Travel web-site design: Information task-fit, service quality and purchase intention. *Tourism Management*, 54, 541–554. <http://doi.org/10.1016/j.tourman.2016.01.001>

- Dimoka, A., Hong, Y., & Pavlou, P. A. (2012). On product uncertainty in online markets: Theory and evidence. *MIS Quarterly*, 36(X), 1–32.
- Fornara, F., Pattitoni, P., Mura, M., & Strazzer, E. (2016). Predicting intention to improve household energy efficiency: The role of value-belief-norm theory, normative and informational influence, and specific attitude. *Journal of Environmental Psychology*, 45, 1–10. <http://doi.org/10.1016/j.jenvp.2015.11.001>
- Goethals, F., Leclercq-Vandelannoitte, A., & Tütüncü, Y. (2012). French consumers’ perceptions of the unattended delivery model for e-grocery retailing. *Journal of Retailing and Consumer Services*, 19(1), 133–139. <http://doi.org/10.1016/j.jretconser.2011.11.002>
- Goodman, J. K. (2013). When Consumers Prefer to Include: Consideration Set Construction Strategies from Large Product Assortments, (Manuscript in preparation). Retrieved from [http://apps.olin.wustl.edu/faculty/goodman/When consumers prefer to include 2-2013.pdf](http://apps.olin.wustl.edu/faculty/goodman/When%20consumers%20prefer%20to%20include%202-2013.pdf)
- Goodman, J. K., & Malkoc, S. A. (2012). Choosing for Here and Now vs. There and Later: The Moderating Role of Psychological Distance on Assortment Size Preferences. *Journal of Consumer Research*, ..., 1–59.
- Grunert, S., & Juhl, H. (1995). Values, environmental attitudes, and buying of organic foods. *Journal of Economic Psychology*, 16, 39–62.
- Hand, C., Dall’Olmo Riley, F., Harris, P., Singh, J., & Rettie, R. (2009). Online grocery shopping: the influence of situational factors, 43(9), 1205–1219. <http://doi.org/10.1108/03090560910976447>
- Hansen, T. (2008). Consumer values, the theory of planned behaviour and online grocery shopping. *International Journal of Consumer Studies*, 32(2), 128–137. <http://doi.org/10.1111/j.1470-6431.2007.00655.x>
- Hansen, T., Jensen, J. M., & Solgaard, H. S. (2004). Predicting online grocery buying intention: A comparison of the theory of reasoned action and the theory of planned behavior. *International Journal of Information Management*, 24(6), 539–550. <http://doi.org/10.1016/j.ijinfomgt.2004.08.004>
- Hasan, B. (2010). Exploring gender differences in online shopping attitude. *Computers in Human Behavior*, 26(4), 597–601. <http://doi.org/10.1016/j.chb.2009.12.012>
- Houghton, D., & Grewal, R. (2000). Please, let’s get an answer—any answer: Need for consumer cognitive closure. *Psychology & Marketing*, 17, 911–934.
- Ivanova, O., Scholz, M., & Dorner, V. (2013). Does Amazon Scare Off Customers? The Effect of Negative Spotlight Reviews on Purchase Intention. *11th International Conference on Wirtschaftsinformatik*, 1–15.
- Jiang, L. (Alice), Yang, Z., & Jun, M. (2013). Measuring consumer perceptions of online shopping convenience. *Journal of Service Management*, 24(2), 191–214. <http://doi.org/10.1108/09564231311323962>
- Jung, J. M., & Kellaris, J. J. (2004). Cross-national differences in proneness to scarcity effects: The moderating roles of familiarity, uncertainty avoidance, and need for cognitive closure. *Psychology and Marketing*, 21(9), 739–753. <http://doi.org/10.1002/mar.20027>
- Kruglanski, A. W. (1990). Lay epistemic theory in social-cognitive psychology. *Psychological Inquiry*, 1(3), 181–197.
- Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: “seizing” and “freezing”.

Psychological Review, 103(2), 263–83.

- Kumar, N., & Benbasat, I. (2006). Research Note: The Influence of Recommendations and Consumer Reviews on Evaluations of Websites. *Information Systems Research*, 17(4), 425–439. <http://doi.org/10.1287/isre.1060.0107>
- Lian, J.-W., & Yen, D. C. (2014). Online shopping drivers and barriers for older adults: Age and gender differences. *Computers in Human Behavior*, 37, 133–143. <http://doi.org/10.1016/j.chb.2014.04.028>
- Lian, J. W., & Lin, T. M. (2008). Effects of consumer characteristics on their acceptance of online shopping: Comparisons among different product types. *Computers in Human Behavior*, 24(1), 48–65. <http://doi.org/10.1016/j.chb.2007.01.002>
- Liao, Z., & Cheung, M. T. (2002). Internet-based e-banking and consumer attitudes: An empirical study. *Information and Management*, 39(4), 283–295. [http://doi.org/10.1016/S0378-7206\(01\)00097-0](http://doi.org/10.1016/S0378-7206(01)00097-0)
- Lien, C. H., Wen, M. J., Huang, L. C., & Wu, K. L. (2015). Online hotel booking: The effects of brand image, price, trust and value on purchase intentions. *Asia Pacific Management Review*, 20(4), 210–218. <http://doi.org/10.1016/j.apmr.2015.03.005>
- Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). Factors Influencing Online Shopping Behavior: The Mediating Role of Purchase Intention. *Procedia Economics and Finance*, 35(October 2015), 401–410. [http://doi.org/10.1016/S2212-5671\(16\)00050-2](http://doi.org/10.1016/S2212-5671(16)00050-2)
- Mannetti, L., Pierro, A., & Kruglanski, A. (2007). Who regrets more after choosing a non-status-quo option? Post decisional regret under need for cognitive closure. *Journal of Economic Psychology*, 28(2), 186–196. <http://doi.org/10.1016/j.joep.2005.12.004>
- Michaud-Trévinal, A., & Stenger, T. (2014). Toward a conceptualization of the online shopping experience. *Journal of Retailing and Consumer Services*, 21(3), 314–326. <http://doi.org/10.1016/j.jretconser.2014.02.009>
- Mosteller, J., Donthu, N., & Eroglu, S. (2014). The fluent online shopping experience. *Journal of Business Research*, 67(11), 2486–2493. <http://doi.org/10.1016/j.jbusres.2014.03.009>
- Mudambi, S., & Schuff, D. (2010). What makes a helpful online review? A study of customer reviews on Amazon.com. *MIS Quarterly*, 34(1), 185–200.
- Pascual-Miguel, F. J., Agudo-Peregrina, Á. F., & Chaparro-Peláez, J. (2015). Influences of gender and product type on online purchasing. *Journal of Business Research*, 68(7), 1550–1556. <http://doi.org/10.1016/j.jbusres.2015.01.050>
- Peck, J. (2011). Does Touch Matter? Insights From Haptic Research in Marketing. In A. Krishna (Ed.), *Sensory marketing: research on the sensuality of products* (pp. 33–48). New York, New York, USA: Routledge.
- Polman, E. (2010). Why are maximizers less happy than satisficers? Because they maximize positive and negative outcomes. *Journal of Behavioral Decision Making*, 23(2), 179–190. <http://doi.org/10.1002/bdm>
- Puccinelli, N. M., Goodstein, R. C., Grewal, D., Price, R., Raghubir, P., & Stewart, D. (2009). Customer Experience Management in Retailing: Understanding the Buying Process. *Journal of Retailing*, 85(1), 15–30. <http://doi.org/10.1016/j.jretai.2008.11.003>

- Quintal, V., Phau, I., Sims, D., & Cheah, I. (2016). Factors influencing generation Y's purchase intentions of prototypical versus me-too brands. *Journal of Retailing and Consumer Services*, 30, 175–183. <http://doi.org/http://dx.doi.org/10.1016/j.jretconser.2016.01.019>
- Rahman, I., & Reynolds, D. (2016). Predicting green hotel behavioral intentions using a theory of environmental commitment and sacrifice for the environment. *International Journal of Hospitality Management*, 52, 107–116. <http://doi.org/10.1016/j.ijhm.2015.09.007>
- Schlink, S., & Walther, E. (2007). Kurz und gut: Eine deutsche Kurzskala zur Erfassung des Bedürfnisses nach kognitiver Geschlossenheit. *Zeitschrift Für Sozialpsychologie*, 38(3), 153–161. <http://doi.org/10.1024/0044-3514.38.3.153>
- Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D. R. (2002). Maximizing versus satisficing: happiness is a matter of choice. *Journal of Personality and Social Psychology*, 83(5), 1178–1197. <http://doi.org/10.1037/0022-3514.83.5.1178>
- Schwartz, S. H. (1992). Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries. *Advances in Experimental Social Psychology*, 25(C), 1–65. [http://doi.org/10.1016/S0065-2601\(08\)60281-6](http://doi.org/10.1016/S0065-2601(08)60281-6)
- Shih, H. P. (2004). An empirical study on predicting user acceptance of e-shopping on the Web. *Information and Management*, 41(3), 351–368. [http://doi.org/10.1016/S0378-7206\(03\)00079-X](http://doi.org/10.1016/S0378-7206(03)00079-X)
- Shim, S., Eastlick, M. A., Lotz, S. L., & Warrington, P. (2001). An online prepurchase intentions model: The role of intention to search. *Journal of Retailing*, 77(3), 397–416. [http://doi.org/10.1016/S0022-4359\(01\)00051-3](http://doi.org/10.1016/S0022-4359(01)00051-3)
- Smith, R., Deitz, G., Royne, M. B., Hansen, J. D., Grünhagen, M., & Witte, C. (2013). Cross-cultural examination of online shopping behavior: A comparison of Norway, Germany, and the United States. *Journal of Business Research*, 66(3), 328–335. <http://doi.org/10.1016/j.jbusres.2011.08.013>
- To, P. L., Liao, C., & Lin, T. H. (2007). Shopping motivations on Internet: A study based on utilitarian and hedonic value. *Technovation*, 27(12), 774–787. <http://doi.org/10.1016/j.technovation.2007.01.001>
- Van Der Heijden, H., Verhagen, T., & Creemers, M. (2003). Understanding online purchase intentions: contributions from technology and trust perspectives. *European Journal of Information Systems*, 12(October 2002), 41–48. <http://doi.org/10.1057/>
- Verhagen, T., & van Dolen, W. (2009). Online purchase intentions: A multi-channel store image perspective. *Information and Management*, 46(2), 77–82. <http://doi.org/10.1016/j.im.2008.12.001>
- Vermeir, I., & Van Kenhove, P. (2005). The influence of need for closure and perceived time pressure on search effort for price and promotional information in a grocery shopping context. *Psychology and Marketing*, 22(1), 71–95. <http://doi.org/10.1002/mar.20047>
- Vermeir, I., van Kenhove, P., & Hendrickx, H. (2002). The influence of need for closure on consumer's choice behaviour. *Journal of Economic Psychology*, 23(6), 703–727. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0167487002001356>
- Vijayasarathy, L. R. (2004). Predicting consumer intentions to use on-line shopping: The case for an augmented

technology acceptance model. *Information and Management*, 41(6), 747–762.
<http://doi.org/10.1016/j.im.2003.08.011>

Wang, W., & Benbasat, I. (2005). Trust in and adoption of online recommendation agents. *Journal of the Association for Information Systems*, 6(3), 72–101. Retrieved from [http://kuo.bm.nsysu.edu.tw/2012/carey/%25E6%2596%2587%25E7%258D%25BB/1027/Trust in and Adoption of Online Recommendation Agents.pdf](http://kuo.bm.nsysu.edu.tw/2012/carey/%25E6%2596%2587%25E7%258D%25BB/1027/Trust%20in%20and%20Adoption%20of%20Online%20Recommendation%20Agents.pdf)

Webster, D., & Kruglanski, A. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, 67(6), 1049–1062.

Webster, D., Richter, L., & Kruglanski, A. (1996). On leaping to conclusions when feeling tired: Mental fatigue effects on impressional primacy. *Journal of Experimental Social Psychology*, 32(2), 181–195.

Yuliharsi, Islam, M. A., & Dauk, K. A. K. (2011). Factors that Influence Customers’ Buying Intention on Shopping Online. *International Journal of Marketing Studies*, 3(1), 128–139.

8 Appendix

8.1 Questionnaire

Table 17: Questionnaire

No.	Scale	Item	Scale Parameters
1	Demographics	Please select your gender	(1, male) (2, female)
2	Demographics	How old are you?	Open Question
3	Demographics	What is your monthly income after taxes?	(1, under 500€); (2, above 500 but under 1000€); (3, above 1000 but under 1500€); (4, above 1500 but under 2000€); (5, above 2000 but under 2500€); (6, above 2500 but under 3000€); (7, above 3000 but under 3500€); (8, above 3500 but under 4000€); (9, above 4000€)
4	Smartphone	Do you use at least occasionally a smartphone?	(1, no) (2, yes)
5	M-Commerce	<i>If yes on Q5:</i> Do you use at least occasionally use your smartphone to buy products and services?	(1, no) (2, yes)
6	Need for Closure Scale	NFC1 - I dislike it when a person's statement could mean many different things.	(1, Strongly disagree) (6, Strongly agree)

7	Need for Closure Scale	NFC2 - After I've made up my mind about something, I think it is a waste of time to consider different opinions.	(1, Strongly disagree) (6, Strongly agree)
8	Need for Closure Scale	NFC3 - I dislike unpredictable situations.	(1, Strongly disagree) (6, Strongly agree)
9	Need for Closure Scale	NFC4 - I enjoy the uncertainty of going into a new situation without knowing what might happen. (reversed)	(1, Strongly disagree) (6, Strongly agree)
10	Need for Closure Scale	NFC5 - When trying to solve a problem, seeing many different options only creates confusion.	(1, Strongly disagree) (6, Strongly agree)
11	Need for Closure Scale	NFC6 - Generally, I do not look for alternative solutions after I have made up my mind about a problem.	(1, Strongly disagree) (6, Strongly agree)
12	Need for Closure Scale	NFC7 - I prefer to socialize with familiar friends because I know what to expect from them.	(1, Strongly disagree) (6, Strongly agree)
13	Need for Closure Scale	NFC8 - I would quickly become impatient and irritated if I would not find a solution to a problem immediately.	(1, Strongly disagree) (6, Strongly agree)
14	Need for Closure Scale	NFC9 - I prefer tasks that are completely clear to me what exactly and how it has to be done.	(1, Strongly disagree) (6, Strongly agree)
15	Need for Closure Scale	NFC10 - When thinking about a problem, I do not take the time to consider as many different opinions on the issue as possible.	(1, Strongly disagree) (6, Strongly agree)
16	Need for Closure Scale	NFC11 - I like questions which could be answered in many different ways. (reversed)	(1, Strongly disagree) (6, Strongly agree)
17	Need for Closure Scale	NFC12 - I like unpredictable situations and dislike routine aspects of my daily life. (reversed)	(1, Strongly disagree) (6, Strongly agree)
18	Need for Closure Scale	NFC13 - I'd rather know bad news than stay in a state of uncertainty.	(1, Strongly disagree) (6, Strongly agree)
19	Need for Closure Scale	NFC14 - I don't like to go into a situation without knowing what I can expect from it.	(1, Strongly disagree) (6, Strongly agree)
20	Need for Closure Scale	NFC15 - I feel irritated when one person disagrees with what everyone else in a group believes.	(1, Strongly disagree) (6, Strongly agree)
21	Need for Closure Scale	NFC16 - When faced with a problem I prefer to take the first solution that comes to mind, instead of thinking about all the possible alternatives.	(1, Strongly disagree) (6, Strongly agree)
22	Maximizers Scale	MaxSat1 - When I watch TV, I channel surf, often scanning through the available options even while attempting to watch one program.	(1, Strongly disagree) (6, Strongly agree)
23	Maximizers Scale	MaxSat2 - When I am in the car listening to the radio, I often check other stations to see if something better is playing, even if I'm relatively satisfied with	(1, Strongly disagree) (6, Strongly agree)

		what I’m listening to.	
24	Maximizers Scale	MaxSat3 - I treat relationships like clothing: I expect to try a lot on before I get the perfect fit.	(1, Strongly disagree) (6, Strongly agree)
25	Maximizers Scale	MaxSat4 - No matter how satisfied I am with my job, it’s only right for me to be on the lookout for better opportunities.	(1, Strongly disagree) (6, Strongly agree)
26	Maximizers Scale	MaxSat5 - I often fantasize about living in ways that are quite different from my actual life.	(1, Strongly disagree) (6, Strongly agree)
27	Maximizers Scale	MaxSat6 - I’m a big fan of lists that attempt to rank things (the best movies, the best singers, the best athletes, the best novels, etc.).	(1, Strongly disagree) (6, Strongly agree)
28	Maximizers Scale	MaxSat7 - I often find it difficult to shop for a gift for a friend.	(1, Strongly disagree) (6, Strongly agree)
29	Maximizers Scale	MaxSat8 - When shopping, I have a hard time finding clothing that I really love.	(1, Strongly disagree) (6, Strongly agree)
30	Maximizers Scale	MaxSat9 - Renting videos is really difficult. I’m always struggling to pick the best one.	(1, Strongly disagree) (6, Strongly agree)
31	Maximizers Scale	MaxSat10 - I find that writing is very difficult, even if it’s just writing a letter to a friend, because it’s so hard to word things just right. I often do several drafts of even simple things.	(1, Strongly disagree) (6, Strongly agree)
32	Maximizers Scale	MaxSat11 - No matter what I do, I have the highest standards for myself.	(1, Strongly disagree) (6, Strongly agree)
33	Maximizers Scale	MaxSat12 - I never settle for second best.	(1, Strongly disagree) (6, Strongly agree)
34	Maximizers Scale	MaxSat13 - Whenever I’m faced with a choice, I try to imagine what all the other possibilities are, even ones that aren’t present at the moment.	(1, Strongly disagree) (6, Strongly agree)
35	CSII Scale	CSII1 - I rarely purchase the latest fashion styles until I am sure my friends approve of them.	(1, Strongly disagree) (6, Strongly agree)
36	CSII Scale	CSII2 - It is important that others like the products and brands I buy.	(1, Strongly disagree) (6, Strongly agree)
37	CSII Scale	CSII3 - When buying products. I generally purchase those brands that I think others will approve of.	(1, Strongly disagree) (6, Strongly agree)
38	CSII Scale	CSII4 - If other people can see me using a product, I often purchase the brand they expect me to buy.	(1, Strongly disagree) (6, Strongly agree)
39	CSII Scale	CSII5 - I like to know what brands and products make good impressions on others.	(1, Strongly disagree) (6, Strongly agree)
40	CSII Scale	CSII6 - I achieve a sense of belonging by purchasing the same products and brands that others purchase.	(1, Strongly disagree) (6, Strongly agree)

41	CSII Scale	CSII7 - If I want to be like someone, I often try to buy the same brands that they buy.	(1, Strongly disagree) (6, Strongly agree)
42	CSII Scale	CSII8 - I often identify with other people by purchasing the same products and brands they purchase.	(1, Strongly disagree) (6, Strongly agree)
43	CSII Scale	CSII9 - To make sure I buy the right product or brand, I often observe what others are buying and using.	(1, Strongly disagree) (6, Strongly agree)
44	CSII Scale	CSII10 - If I have little experience with a product, I often ask my friends about the product.	(1, Strongly disagree) (6, Strongly agree)
45	CSII Scale	CSII11 - I often consult other people to help choose the best alternative available from a product class.	(1, Strongly disagree) (6, Strongly agree)
46	CSII Scale	CSII12 - I frequently gather information from friends or family about a product before I buy.	(1, Strongly disagree) (6, Strongly agree)
47	Conservation	Conservation1 - Politeness	(1, Very unimportant) (6, Very important)
48	Conservation	Conservation2 - Reciprocation of favors	(1, Very unimportant) (6, Very important)
49	Conservation	Conservation3 - Self-discipline	(1, Very unimportant) (6, Very important)
50	Conservation	Conservation4 - Social order	(1, Very unimportant) (6, Very important)
51	Conservation	Conservation5 - Accepting portion in life (excluded)	(1, Very unimportant) (6, Very important)
52	Self-Enhancement	SelfEnhancement1 - Successful	(1, Very unimportant) (6, Very important)
53	Self-Enhancement	SelfEnhancement2 - Social Power	(1, Very unimportant) (6, Very important)
54	Self-Enhancement	SelfEnhancement3 - Influential	(1, Very unimportant) (6, Very important)
55	Self-Enhancement	SelfEnhancement4 - Wealth	(1, Very unimportant) (6, Very important)
56	Industry / Product Category Purchase Activities within the last 3 years	Banking products Cars Clothing / Apparell Consumer electronics (big: TV, Home Cinema System) Consumer electronics (small: laptop, smartphone, tablet etc.) Drugstore articles Financial Investment Furniture Groceries	(1, no) (2, yes) (for each)

		Hotelroom Household appliances (Refridgerator, washing machine) Insurances Literature/Books Luxury articles (watches, jewelry) Medicines and pharmaceuticals without prescription Movies/DVDs/Series etc. Music Ordering food at a home delivery service Plane Tickets Power supply or electricity agreement Rent a car Taxi / cab ride Telecommunications Contract (Mobile/cell-phone, home line, Internet) Tickets (Cinema, Concerts, Theatre) Tickets for public transport (Bus, Metro/Sub/Tube) Train Tickets	
57	Self-reported Purchase Behavior	How do you usually buy "product category / industry"?	(1, Always offline) (6, Always online)
58	Online Purchase Intention	How do plan or expect to buy "product category / industry" in the future (in 1 or 2 years)?	(1, Always offline) (6, Always online)
59	Subjective Norm	SN1 - Members of my family think that it is a good idea to "product category / industry" via the Internet.	(1, Strongly disagree) (6, Strongly agree)
60	Subjective Norm	SN2 - Most of my friends and acquaintances think that shopping "product category / industry" via the Internet is a good idea.	(1, Strongly disagree) (6, Strongly agree)
61	Attitude toward online purchase	Att1 - Electronic shopping of "product category / industry" is attractive to me in my daily life	(1, Strongly disagree) (6, Strongly agree)
62	Attitude toward online purchase	Att2 - Buying "product category / industry" via the Internet is well suited to the way in which I normally shop "product category / industry"	(1, Strongly disagree) (6, Strongly agree)
63	Attitude toward online purchase	Att3 - Buying "product category / industry" via the Internet is beneficial to me	(1, Strongly disagree) (6, Strongly agree)
64	Attitude toward online purchase	Att4 - When I'm buying "product category / industry" via the internet, I save time.	(1, Strongly disagree) (6, Strongly agree)
65	Attitude toward online purchase	Att5 - When I'm buying "product category / industry" via the internet, I save money.	(1, Strongly disagree) (6, Strongly agree)
66	Attitude toward online	Att6 - When I'm buying "product category / industry" via the internet, I find better selection of products.	(1, Strongly disagree) (6, Strongly agree)

purchase			
67	Attitude toward online purchase	Att7 - When I'm buying "product category / industry" via the internet, I find better products.	(1, Strongly disagree) (6, Strongly agree)
68	Attitude toward online purchase	Att8 - Buying "product category / industry" via the Internet is more convenient to me than offline.	(1, Strongly disagree) (6, Strongly agree)
69	Perceived Behavioral Control	PBC1 - In general, electronic shopping is very complex (reversed)	(1, Strongly disagree) (6, Strongly agree)
70	Perceived Behavioral Control	PBC2 - With electronic shopping of "product category / industry" it is difficult to order products (reversed)	(1, Strongly disagree) (6, Strongly agree)
71	Perceived Behavioral Control	PBC3 - In general, electronic shopping of "product category / industry" yields (will yield) few problems for me	(1, Strongly disagree) (6, Strongly agree)
72	Perceived Behavioral Control	PBC4 - I'm always capable of buying "product category / industry" via the Internet whenever I want	(1, Strongly disagree) (6, Strongly agree)

8.2 Correlations

Table 18: Correlations – High Online Purchase Intention

Correlations - High Intention Cluster													
Measures													
1	2	3	4	5	6	7	8	9	10	11	12	13	
1 Gender	1												
2 Age	-.074**	1											
3 Household Income	-.131**	.141**	1										
4 Need for Closure	.054**	-.096**	-.125**	1									
5 Maximizer's Scale	-.056**	-.340**	0.00	.383**	1								
6 Consumer Susceptibility to Interpersonal Influence	-.071**	-.278**	-0.01	.388**	.698**	1							
7 Conservation	.071**	.066**	0.01	.275**	.166**	.160**	1						
8 Self-Enhancement	-.073**	-.156**	.154**	.184**	.404**	.380**	.378**	1					
9 Attitude	-0.02	-0.04	.069**	.093**	.203**	.176**	.127**	.151**	1				
10 Subjective Norm	0.00	-.068**	.101**	.096**	.234**	.234**	.133**	.168**	.816**	1			
11 Perceived Behavioral Control	0.03	.132**	0.03	-.091**	-.188**	-.232**	.099**	-0.03	.585**	.437**	1		
12 Online Purchase Intention	-.050*	-0.01	.093**	0.01	0.02	-0.01	0.02	0.03	.407**	.325**	.297**	1	
13 Self-Reported Online Purchase Behavior	-.054**	0.01	.101**	0.01	0.00	-0.01	0.02	0.03	.383**	.309**	.274**	.882**	1

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

Table 19: Correlations – Moderate Online Purchase Intention

Correlations - Moderate Intention Cluster														
Measures														
1	Gender	1												
2	Age	-.051**	1											
3	Household Income	-.116**	.094**	1										
4	Need for Closure	.080**	-.067**	-.073**	1									
5	Maximizer's Scale	-.087**	-.387**	0.03	.344**	1								
6	Consumer Susceptibility to Interpersonal Influence	-.075**	-.321**	.039*	.377**	.675**	1							
7	Conservation	.068**	.092**	0.01	.284**	.154**	.143**	1						
8	Self-Enhancement	-.076**	-.168**	.161**	.166**	.451**	.411**	.347**	1					
9	Attitude	-.046*	-.126**	.118**	.128**	.247**	.204**	.124**	.177**	1				
10	Subjective Norm	-.003	-.137**	.118**	.142**	.267**	.284**	.125**	.211**	.806**	1			
11	Perceived Behavioral Control	0.01	.084**	.056**	-.055**	-.141**	-.208**	.103**	-.043*	.548**	.378**	1		
12	Online Purchase Intention	-.077**	-.069**	.133**	0.03	.150**	.090**	0.02	.079**	.461**	.381**	.252**	1	
13	Self-Reported Online Purchase Behavior	-.068**	-.076**	.110**	.050**	.152**	.098**	0.00	.069**	.431**	.366**	.211**	.879**	1

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

Table 20: Correlations – Low Online Purchase Intention

Correlations - Low Intention Cluster														
Measures														
1	Gender	1												
2	Age	-,020	1											
3	Household Income	-,091**	,069**	1										
4	Need for Closure	,036	-,021	-,097**	1									
5	Maximizer's Scale	-,102**	-,363**	,023	,344**	1								
6	Consumer Susceptibility to Interpersonal Influence	-,095**	-,307**	,019	,358**	,682**	1							
7	Conservation	,089**	,079**	,046*	,248**	,129**	,104**	1						
8	Self-Enhancement	-,114**	-,178**	,155**	,160**	,448**	,396**	,352**	1					
9	Attitude	-,057**	-,113**	,117**	,116**	,225**	,179**	,113**	,183**	1				
10	Subjective Norm	-,036	-,121**	,135**	,127**	,285**	,260**	,123**	,216**	,816**	1			
11	Perceived Behavioral Control	,006	,077**	,068**	-,056**	-,152**	-,217**	,093**	-,036	,585**	,414**	1		
12	Online Purchase Intention	-,046*	-,107**	,100**	,056**	,250**	,243**	,028	,158**	,367**	,344**	,131**	1	
13	Self-Reported Online Purchase Behavior	-,058**	-,109**	,101**	,066**	,247**	,263**	,025	,153**	,306**	,304**	,073**	,821**	1

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

8.3 Multicollinearity table

Table 15: Multicollinearity for all three models across the purchase intention cluster

Collinearity statistics for all three models across the purchase intention cluster						
	Low		Moderate		High	
	<i>Tolerance</i>	<i>VIF</i>	<i>Tolerance</i>	<i>VIF</i>	<i>Tolerance</i>	<i>VIF</i>
Model 1: Demographics						
<i>Gender</i>	.990	1.01	.983	1.02	.978	1.02
<i>Age</i>	.994	1.01	.989	1.01	.978	1.02
<i>Household Net Income</i>	.988	1.01	.980	1.02	.968	1.03
Model 2: Demographics + Personality Traits						
<i>Gender</i>	.966	1.04	.952	1.05	.961	1.04
<i>Age</i>	.825	1.21	.808	1.24	.850	1.18
<i>Household Net Income</i>	.971	1.03	.967	1.03	.949	1.05
<i>Need for Closure</i>	.812	1.23	.808	1.24	.798	1.25
<i>Maximizers</i>	.490	2.04	.496	2.02	.471	2.12
<i>Consumer Susceptibility</i>	.508	1.97	.510	1.96	.491	2.04
Model 3: Demographics + Personality Traits + TPB						
<i>Gender</i>	.964	1.04	.949	1.05	.956	1.05
<i>Age</i>	.821	1.22	.804	1.24	.845	1.18
<i>Household Net Income</i>	.961	1.04	.954	1.05	.927	1.08
<i>Need for Closure</i>	.811	1.23	.805	1.24	.793	1.26
<i>Maximizers</i>	.470	2.13	.482	2.08	.463	2.16
<i>Consumer Susceptibility</i>	.482	2.08	.466	2.15	.456	2.19
<i>Subjective Norm</i>	.303	3.30	.368	2.72	.387	2.58
<i>Attitude</i>	.253	3.95	.292	3.42	.300	3.33
<i>Perceived Beh. Control</i>	.645	1.55	.562	1.78	.500	1.99

8.4 Syntax

The file was split on base of the three intention clusters (Variable: Branche3Clusters) and then the respective regression analysis has been carried out.

8.4.1 Value-Attitude Regression Models

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT AttitudeMean

/METHOD=ENTER ConservationMean SelfEnhancementMean.

8.4.2 Regression Analysis on Intention Clusters

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT Intention

/METHOD=ENTER Geschlecht HHNE Alter

/METHOD=ENTER NFCMean MaxSatMean CSIImean

/METHOD=ENTER AttitudeMean SubjectiveNormMean PBCmean.