Decorating omnichannels
Shedding light on the consumer perspective on omnichannel behavior

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Abstract

The emerging phenomena of omnichannel has gained momentum with both scholars and practitioners as the future of retail. Fueled by technological developments, the characteristic behavior of omnishoppers are spreading. However, the theoretical understanding of the omnichannel context has within academia traditionally focused on the firm perspective, leaving a gap in understanding the consumer perspective on drivers of purchase intention within this new context. To this end, a tailored conceptual research model emanating from the renowned Technology acceptance model (TAM) was constructed to increase relevancy in this context. It was tested through a survey where the findings revealed that the key determinants of purchase intention within an omnichannel context were, in order of importance; perceived security, followed by perceived usefulness. Further, personal innovativeness was shown to negatively moderate the relationship between personalization and purchase intention, while the consumer’s habit of using multiple channels were found to positively moderate the relationship between perceived usefulness and purchase intention. In-depth interviews further deepened the understanding of these quantitative findings to help provide managerial and theoretical contributions along with avenues for further research.

Keywords

omnichannel, omnichannel retail, omnishopper, TAM, technology acceptance, perceived ease of use, perceived usefulness, perceived personalization, perceived security, purchase intention, personal innovativeness, habit
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We are in the middle of a revolution. A revolution that is disruptive to an extent never before experienced. Technology has transformed everything, not only what we do and how - it has also truly changed us as individuals and as a society (e.g. Schwab, 2015; Mirsch et al., 2016). It is an era characterized by the ‘power of consumers’, that influence every aspect of business (Melero et al., 2016). With Apple at the forefront of user friendliness, a purchase only a “swish” away and Netflix knowing you well enough to suggest a movie - consumer expectations have skyrocketed and raised the bar significantly across industries. Consumers now demand a holistic consumer experience through a revamped purchase process, made possible by disruptive digital innovations.

Technology has increased the number of possible touchpoints between consumers and retailers while diminishing boundaries between the offline and online sphere (Brynjolfson et al., 2013), with 80% of consumers utilizing some form of technology while shopping both offline and online (Mastercard, 2016). Consumers nowadays move in and out of channels and touchpoints as they see fit (Melero et al., 2016; Mirsch et al., 2016), since they only perceive there to be a “single, technology-enabled channel that brings together all touchpoints” (Bloomberg, 2014:1). To illustrate, a purchase could begin by finding product information online, followed by visiting a physical store to evaluate the product and then ordering it through a smartphone. This holistic consumer experience hinges on a seamless purchase process that require all channels and touchpoints to be interconnected and integrated in what is known as the emerging phenomena of omnichannel (Brynjolfson et al., 2013; Verhoef et al., 2015; Mirsch et al., 2016).

Omnichannel is known to scholars and practitioners alike as a lot more than just a marketing buzzword (Bloomberg, 2014; Verhoef et al., 2015) and has been highlighted as a top priority globally to effectively deal with the emerging consumer environment (Verhoef et al., 2015; Melero et al., 2016). Researchers argue that omnichannel is a central part of the future of retail (Brynjolfson et al. 2013; Piotrowicz & Cuthbertson, 2014; Pantano & Viassone, 2015; Mirsch et al., 2016) with omnichannel features developing from ‘nice-to-have’ to ‘must-haves’ (Bell et al., 2014; Peltola et al., 2015). Thus, the need for retailers to fully understand consumer expectations is more important than ever.
The omnishoppers who drive these changes use several channels when shopping (Ortis, 2010), and have been identified as the firms’ most valuable consumers (van Baal & Dach, 2005; Stone et al., 2002; Pantano & Viassone, 2015). While 75% of consumers already use two or more channels throughout their purchase process (Melero et al., 2016), their presence on the global market steadily grows (Yurova et al., 2017; Schlager & Maas, 2013; Mastercard, 2016). Therefore, predicting the drivers of omnishoppers’ behavior is a necessary challenge to tackle.

1.1 Problem Formulation & Contribution

Verhoef et al. (2015) highlight that previous literature has mainly focused on the retailers’ perspective on omnichannel and neglected to provide insight into the concept from a consumer perspective. While there is an abundance of studies performed by practitioners on omnichannel initiatives and drivers of behavioral intention from the consumer perspective (e.g. Accenture, 2016; Mastercard 2016; McKinsey, 2016), there is an evident gap in academia pertaining to identifying which overarching consumer perceptions drive purchase intention in an omnichannel context (Lazaris & Vrechopoulos, 2014).

While omnichannel in general has gained momentum within academia (e.g. Piotrowicz & Cuthbertson, 2014; Pantano & Viassone, 2015; Verhoef et al., 2015; Mirsch et al., 2016), furthering its importance in driving integrated consumer experiences (Rigby, 2011; Brynjolfson et al., 2013), a consistent research framework for understanding consumer behavior in the specific omnichannel context have yet to be developed. Scholars have called for future research to extend the understanding of the concept (e.g. Lazaris & Vrechopoulos, 2014; Herhausen et al., 2015; Verhoef et al., 2015; Juaneda-Ayensa et al., 2016; Mirsch et al., 2016).

As technology is a necessity for omnichannel; consumers’ acceptance and usage of the technology sits at the core of it (Bloomberg, 2014) where a deeper understanding of variables that drive omnishopper behavior would be of favor. To study this, the renowned technology acceptance model (TAM) is predicted to be suitable (e.g. Juaneda-Ayensa et al., 2016). A significant amount of research has been conducted in the area of technology acceptance (e.g. Davis, 1989; Taylor & Todd, 1995; Venkatesh & Davis, 2000; Venkatesh et al., 2012; and
the TAM-model has been established as an influential framework to understand and predict consumer behavioral intention and adoption of new technologies (Venkatesh & Davis, 2000). The technology referred to within an omnichannel context, is the technology consumers interact with in each touchpoint during the purchase process (Juaneda-Ayensa et al., 2016).

The model originated in an organizational context (e.g. Davis, 1989; Venkatesh et al., 2012) and has since been applied in multiple contexts; such as e-commerce (e.g. Cha, 2011; Fortes & Rita, 2016) as well as omnichannel (e.g. Juaneda-Ayensa et al., 2016). In addition, prior studies have utilized the common approach of TAM and extended it with additional variables to tailor it to each new context (Pantano, 2014).

While the TAM-model can be deemed a suitable framework to develop further for the purpose of gaining omnichannel insight from the consumer perspective (Juaneda-Ayensa et al., 2016), prior extensions of TAM has shown certain variables to significantly drive purchase intention while others have been rejected. Thus, it is necessary to continue to establish what variables drive intent in an omnichannel context. For the purpose of this paper, these variables will be referred to as antecedents, driving or triggering a consumer behavior. Furthermore, one should not neglect the critical discussions regarding the lack of concern for personal characteristics within the TAM-model (e.g. Legris et al., 2003; Cha, 2011). With Agarwal & Prasad (1998) indicating that there is relevance in examining personal characteristics as a moderating influence on behavior intention.

Consequently, this study aims to contribute with knowledge of what factors drive purchase intention, from a consumer perspective. We believe that it will show that the TAM-models’ perceived ease of use and perceived usefulness significantly drive intention, as has been previously tested. In addition, this study is believed to contribute with adding perceived security and perceived personalization as significant drivers within an omnichannel context. Further, addressing the moderating effect of personal characteristics when tailoring the model for the specific context will be a beneficial contribution. It is thus believed to further contribute to the establishment of a consistent research framework for understanding consumer behavior in the omnichannel context.
1.2 Purpose and Research Questions

Hence, the purpose of this research is to examine the omnichannel context from a consumer perspective and identify antecedents that influence consumer behavior during the purchase process. In other words, the purpose is to investigate the drivers of omnishoppers’ technology acceptance and use, in order to analyze the effect on purchase intention. Along with identifying whether personal characteristics moderate the relationship between antecedents and omnishoppers’ intent to purchase within an omnichannel context. Thus, the research questions this study aim to answer are:

- In an omnichannel context, what antecedents influence omnishoppers’ purchase intention?
- And, how do personal characteristics moderate the relationship to purchase intention?

The rest of this research paper is structured in the following way; first, a description of the context and the theoretical foundation of the proposed research model are provided, from where hypotheses are developed. Second, a discussion is had on the chosen research methodology including an operationalization of the scale. Third, validity and reliability of the survey is established along with a presentation of the results stemming from the hypothesis testing. Since a majority of our hypotheses are not supported, data from qualitative interviews is added to help explain the quantitative findings. The qualitative result is integrated into the analysis to support the discussion around each construct and hypotheses of the research model. Finally, the managerial implications, academic contributions and avenues for further research of this study are highlighted.

1.3 Scope

The study was limited to the geographical market of Sweden and to the industry of Home decor and Furnishing. Hence, an omnichannel retail context was studied. The home decor and furnishing industry refers to the market of furniture and decorative items for the home. Swedish consumers spend a relatively high portion of their income on their home and its decoration (Euromonitor, 2016). In 2016, the total industry grew with 7% and is expected to
grow with double digits until year 2020 (Euromonitor, 2016). Meanwhile, the industry has also shown a strong online growth, with an e-commerce growth of 26% (e-barometern, 2016). Furthermore, the Swedish market is considered relatively developed within omnichannels (Avensia, 2015) and thus a suitable market to study.

2. Theoretical Framework

This section presents the theoretical foundation of the study. First, both concepts of omnichannel and omnishoppers are elaborated on to establish the context. Second, the conceptual framework along with motivations for its composition is presented, followed by an illustration of the research model. Thereafter, each antecedent within the research model is discussed separately and concluded with a hypothesis on its effect on purchase intention. Finally, the moderating variables are elaborated on, ending with hypotheses on how each moderates the relationship between the antecedents and purchase intention.

2.1 Omnichannel

Omnichannel is an evolution of the multichannel customer approach, which has taken place over the last years across multiple industries (Lazaris & Vrechopoulos, 2014; Verhoef et al., 2015; Mirsch et al., 2016). An omnichannel approach aims to create a seamless customer experience regardless of where in the purchase process the consumer is or which channel is used (Brynjolfsson et al., 2013; Piotrowicz & Cuthbertson, 2014; Peltola et al., 2015). Verhoef et al. (2015:176) provide one of the most well-cited definitions of an omnichannel approach; “the synergetic management of the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels is optimized”.

A channel is a route or path through which firms deliver products, services or information to consumers (Mehta et al., 2002). A channel is defined as a contact point or medium through which the customer and the retailer interact (Neslin et al., 2006). In an omnichannel context these channels include physical store, website, social media, mobile app, email, telephone, catalogue, chat, in-store kiosks among others. Through each channel, there exists a number of
possible customer touchpoints, which is a direct or indirect contact with a firm or brand (Verhoef et al., 2015).

Through technology, retail firms are able to integrate all the information gathered through their different channels, a phenomenon described by Brynjolfson et al. (2013) as omnichannel retailing. It is defined as "an integrated sales experience that melds the advantages of physical stores with the information-rich experience of online shopping" (Rigby, 2011:67). This allows consumers to choose the most suiting channel for each situation in their interaction with the company (Mirsch et al., 2016) and consumers increasingly seek out retailers that provide this type of seamless shopping experience (Bălăşescu, 2013). Scholars argue that technology has made omnichannel retailing inevitable (Brynjolfson et al., 2013) with in-store technologies, augmented reality, location-based services and mobile devices integrating the offline channels with online channels in the retail environment (Lazaris et al., 2014). Omnichannel retailing has further enabled firms to interact with individual consumers at various touchpoints along the purchase process in a more unique way (Rose et al., 2012).

2.1.1 Omnishopper

An omnishopper is defined as a consumer who “uses multiple channels during their shopping journey” (Juaneda-Ayensa et al., 2016:2). Studies have shown that a customer who utilize several channels during their purchase process spend significantly more than one-channel customers (Stringer, 2004; Sands et al, 2010) and have an increased purchase frequency (Kumar & Venkatesan, 2005). Scholars frequently use different names to describe the same type of consumer shopping behavior; multichannel shopper (e.g. Verhoef et al., 2015), omnichannel consumer (e.g. Yurova et al., 2017) and omnishopper (e.g. Juaneda-Ayensa et al., 2016; Lazaris et al., 2014; Lazaris & Vrechopoulos, 2014). However, this study will use the term omnishopper.

Omnishoppers are multi-device and multiscreen consumers who have access to and gather product information from a wide variety of channels and sources (Juaneda-Ayensa et al., 2016; Yurova et al., 2017). They have high expectations on both technology and customer experience and are comfortable utilizing all types of channels (Harris, 2013). An omnishopper may search for information on a tablet, visit a physical store to compare several
different brands, only to finish the purchase through an outlet website (Yurova et al., 2017). Omnishoppers are argued to be task-oriented and to continuously strive to maximize their convenience (Juaneda-Ayensa et al., 2016) and to take advantage of the benefits offered by each channel. Omnishoppers often seek out new forms of technology to reap the associated perceived benefits (Juaneda-Ayensa et al., 2016), which vary dependent on shopper need, product or situation (Yurova et al., 2017).

### 2.2 Conceptual Framework

The technology acceptance model (TAM) is a renowned research model (Taylor & Todd, 1995), developed to investigate user behavior and intention to use technology within an organizational context (Davis, 1989). Subsequent studies have extended the TAM-model with additional variables (e.g. Venkatesh & Davis, 2000; Pantano & Di Pietro, 2012; Pantano, 2014) and studied it in different contexts (e.g. van der Heijden, 2004; Venkatesh et al., 2012; Juaneda-Ayensa et al., 2016), since it is argued to be generalizable across different settings (Taylor & Todd, 1995).

The TAM-model introduced the constructs of perceived ease of use (henceforth ease of use) and perceived usefulness (henceforth usefulness) as drivers of usage intention (Davis, 1989). The model also hypothesized that these two constructs impact each other, as the easier to use, the more useful it will be (Davis, 1989; Taylor & Todd, 1995; Venkatesh & Davis, 2000). Hence, scholars implied that ease of use may be considered a predictor to usefulness. However, more recent studies have removed the relationship between these two antecedents and instead examining them as separate parallel constructs (e.g. Venkatesh, 2012; Juaneda-Ayensa et al., 2016). Further, Juaneda-Ayensa et al. (2016) revealed a significant relationship between both the direct effect of ease of use and usefulness on purchase intention within an omnichannel context. Hence, relevancy of the two original variables of the TAM-model as parallel constructs was determined. In line with Juaneda-Ayensa et al. (2016), the originally dependent variable usage intention will be modified to purchase intention to increase relevance for the omnichannel context, and the original TAM-model constructs will be retained.
Within the general literature of online purchase, *perceived security* (henceforth *security*) has been featured in several studies (e.g. Hoffman et al., 1999; Chellappa & Pavlou, 2002; Dinev et al.; Kim et al., 2008). However, scholars have brought forth that TAM neglects to pay attention to potential negative consequences, such as privacy and security concerns, that arise in the adoption and usage of new technologies (Xu & Gupta, 2009). Dinev et al. (2008) show that consumers perceive there to be a risk when sharing information in a seamless online environment. Despite other findings showing no significant relationship between *security* and *purchase intention* in an omnichannel context (Juaneda-Ayensa et al., 2016), it is still argued to warrant further research and will therefore be included to extend the TAM-model in this study.

Furthermore, Brynjolfson et al., (2013), Piotrowicz & Cuthbertson, (2014) and Peltola et al. (2015) emphasize that the creation of a personalized and seamless experience is at the core of an omnichannel approach. So far, *perceived personalization* (henceforth *personalization*) has been shown to impact *purchase intention* in an online retail context (Pappas et al., 2014), while scholars such as Lazaris et al. (2014) suggest that *personalization* and customization in omnichannel retailing is an avenue that should be further explored. Juaneda-Ayensa et al. (2016) propose that future research should focus on the personalization aspect of the retail customer experience and in addition, Pantano & DiPietro (2012) propose that studying the connection between technology and customization to the consumers’ needs are interesting avenues. Hence, *personalization* will be included as a novel construct in the extension of the TAM-model in an omnichannel context.

Finally, Herhausen et al., (2015) suggest that it is of interest to explore how the value added for consumers in an omnichannel context varies between individual consumers. Binder (2014) suggest that the origin and nature of various effects of online integration should be studied through a focus on the role of contextual factors and an inclusion of additional moderators to a research model. Pantano & DiPietro (2012) propose that a consumer’s personal characteristics, including *user innovativeness* and their experience with advanced systems could be used to extend TAM. The inclusion of *personal innovativeness* (henceforth *innovativeness*) allows for a further understanding of the TAM-model through explicating the role individual traits play in moderating usage (Agarwal & Prasad, 1998), while also taking into consideration earlier critique against TAM as excluding the influence of personal factors of consumer behavior (Taylor & Todd, 1995). Agarwal & Prasad (1998) and San Martin &
Herrero (2012) further suggest that *innovativeness* within the information technology domain acts as a moderating variable on antecedents. In addition, Juaneda-Ayensa et al. (2016) in accordance with Chiu et al. (2012) suggests further research should evaluate *habit* as a moderating factor on *purchase intention*. Thus, consumers’ personal characteristics in the form of *innovativeness* and *habit* were included as moderating variables to complement the theoretical framework. As such, the following conceptual research model was created:

![Conceptual Research Model](image)

**Figure 1.** Conceptual Research Model

### 2.2.1 Purchase Intention

The construct of behavioral intention has been researched as the dependent variable in a multitude of studies related to consumer behavior and technology adoption (e.g. Venkatesh & Davis, 2000; Pappas et al, 2014; Frasquet et al, 2015) and shown to be impacted by a variety of predictors. Behavioral intention captures the motivational factors that influence the individual to perform a certain behavior and it indicates how strongly the individuals will try to perform that behavior (Ajzen, 1991). Behavioral intention has been adopted as *purchase intention* in various research (e.g. Agarwal & Prasad, 1998; Khalifa & Liu, 2007; Juaneda-Ayensa et al., 2016). *Purchase intention* refers to the consumers’ intention or choice to purchase from one of the channels offered by the retailer (Pantano & Viassone, 2015; Juaneda-Ayensa et al., 2016). Thus, in this study, consumers’ intent to purchase will be the outcome measured as the dependent variable *purchase intention*. 
2.2.2 Perceived Ease of use

*Perceived ease of use* is defined as “the degree to which a person believes that using a particular system would be free of effort” (Davis, 1989:320) as it relates to technology in different touchpoints during the purchase process (Venkatesh et al., 2012; Juaneda-Ayensa et al., 2016). It is one of the two direct determinants of the TAM-model (Venkatesh & Davis, 2000) and the variable is often used interchangeably (San Martin & Herrero, 2012) to Venkatesh et al. (2012) construct *effort expectancy*, which was developed from *ease of use* (San Martin & Herrero, 2012). Davis (1989) suggest that an application that is easier to use than another will be more accepted by consumers and the construct has been theorized as closely connected to “individuals’ self-efficacy beliefs and procedural knowledge” (Venkatesh & Bala, 2008:279), which requires practical experience and usage of skills (Davis, 1989; Venkatesh & Davis, 2000). Individuals often form their first perception of how easy it is to use by anchoring it to their overall belief of the system. Thereafter, adjusting this belief based on practical experience of the specific system (Venkatesh & Bala, 2008). Nevertheless, *ease of use* can be argued to influence *usefulness* as the easier to use, the more useful it will be (Venkatesh & Davis, 2000).

*Ease of use* has overall been shown to have a positive impact on *purchase intention* in several previous studies (Davis, 1989; Venkatesh et al., 2012; Juaneda-Ayensa et al., 2016, Pantano & DiPietro, 2012). However, in contrast to *usefulness*, it does not consistently exhibit a direct effect on behavioral intention (Venkatesh & Davis, 2000). To illustrate, Cha (2011) showed that *ease of use* did not positively impact purchase intention for online items, but was significant for items bought offline. Hence, the following hypotheses is proposed:

**H1:** Perceived ease of use positively affects omnichannel purchase intention.

2.2.3 Perceived Usefulness

*Perceived usefulness* is defined as the benefits a consumer experience from the usage of a technology and how this usage is perceived to enhance performance (Davis, 1989; Venkatesh et al., 2012). It relates to the utility value (Pantano & Di Pietro, 2012) derived from using a system. Venkatesh & Davis (2000) state that the perception of *usefulness* is partly formed by cognitively comparing the capabilities of a system in relation to the job that is to be
performed. The construct is often used interchangeably to Venkatesh et al.’s (2012) performance expectancy, since it was developed from usefulness (San Martin & Herrero, 2012).

This construct has consistently been considered the strongest predictor of behavior intention (Davis, 1989; Venkatesh et al., 2003; Venkatesh et al., 2013; Pascual-Miguel et al., 2015; Juaneda-Ayensa et al., 2016), which is explained by the strong drive to adopt a specific technology based on the performance it promises and how easy it is to achieve the expected performance (Davis, 1989). Hence, in accordance with previous research, the following hypothesis is proposed:

**H2:** Perceived usefulness positively affects omnichannel purchase intention.

### 2.2.4 Perceived Security

A central topic in both online and offline marketing literature is privacy of personal information (Jones, 1991) and concern for uncertainties during the purchase process (Pantano & Di Pietro, 2012; Fortes & Ritas, 2016). Consumers may be hesitant to provide retailers with personal and payment information online due to security concerns (Yenisey et al., 2005).

*Security* within an omnichannel context is described as the “perception by consumers that the omnichannel companies’ technology strategies include the antecedents of information security” (Juaneda-Ayensa et al., 2016:5). It refers to the belief that it is secure to send sensitive information through Internet (Cha, 2011; Escobar-Rodríguez & Carvajal-Trujillo, 2014) and to what degree the individual perceive that organizational processes and structures exist to help maintain privacy (Xu & Gupta, 2009).

Cha (2011) revealed that *security* was a factor that impact consumers shopping behavior of offline items and several scholars (e.g. Salisbury et al., 2001 and Frasquet et al., 2015) have shown that *security* will positively affect *purchase intention* in online channels. In addition, research (e.g. Kim et al., 2008; Fortes & Ritas, 2016) show that the opposite concept – perceived risk, will negatively impact *purchase intention*, in line with prior discussion. However, Juaneda-Ayensa et al. (2016) revealed that *security* did not have a significant effect...
on purchase intention in an omnichannel environment within the clothing industry. Due to these contrasting findings, it is argued that additional examination of security in a different omnichannel context is needed. Thus, the following hypotheses is proposed:

**H3:** Perceived security positively affects omnichannel purchase intention.

### 2.2.5 Perceived Personalization

Noar et al., (2009) argue that most retailers have acknowledged the beneficial outcomes of customized content with Kang et al. (2016) highlighting that *personalization* is enabled through technology. 85% of omnishoppers now more or less expect a personalized shopping experience (Melero et al., 2016) due to the development of big data and machine learning technologies, which consequently has led to a focus on personalization in the omnichannel approach among retailers (Purcarea, 2016). Bălășescu (2013) highlight that in order to enable this personal connection with consumers, retailers need to be integrated across their offline and online touchpoints.

As defined by Roberts (2003), *personalization* is the ability to offer an individualized and tailored communication approach based on stated or implied preferences and previous behavior. It is the ability to provide content tailored to individuals with the main objective to satisfy consumers dependent on their individual needs and behaviors (Pappas et al., 2012; Pappas et al., 2014). Personalization can be studied as *actual personalization* or *perceived personalization*. *Actual personalization* refers to when the firm intentionally customize a message on the basis of previously collected data and send it to the receiver (Li, 2016). Meanwhile, *perceived personalization* is “dependent on whether that particular message recipient perceives the message fitting into his or her preferences” (Li, 2016:27) and is solely the consumer’s perception (Komiak & Benbasat, 2006). Kramer (2007) and Roberts (2003) further emphasize that the favorable effects of *personalization* does not occur until the receiver has acknowledged that the message match their preference. This study conceptualizes the construct as *perceived personalization*.

Previous research has shown that *personalized* messaging has a stronger impact than non-personalized messaging (Noar et al., 2009). Pappas et al. (2014) further show that
personalization leads to positive emotions in an online shopping context. Enjoyment with the experience will strongly impact purchase intention since the more enjoyment derived from the service or product, the more likely that it will lead to usage (Pappas et al., 2012; Pappas et al., 2014). Personalization is shown to affect consumer purchase intention in a variety of contexts (Pappas et al., 2014). Ha et al. (2010) state that customized information facilitates behavioral intention, and Zhang et al. (2010) study reveal that personalization significantly influence purchase intention. As argued by Komiak & Benbasat (2006), theories on technology acceptance, such as the TAM-model, should be expanded to include the effect of the personalized nature of technology. Thus, the following hypothesis is proposed:

**H4**: Perceived personalization positively affects omnichannel purchase intention.

### 2.2.6 Personal Innovativeness

Rogers & Shoemaker (1971:27) define innovativeness as “the degree to which an individual is relatively earlier in adopting new ideas than other members of his social system.” Juaneda-Ayensa et al. (2016) add that personal innovativeness include consumer's profile or preferences to try new channels and experiences. Innovativeness is considered an individual-specific trait (Xu & Gupta, 2009) that individuals are born with to a higher or lower degree, while it is also affected by external social factors (Hirschman, 1980; Rogers, 2010).

Innovativeness has received extensive scholarly attention in prior research on consumer behavior (e.g Hirschman, 1980; Rogers, 2010). In multiple studies, innovativeness has been established as an influential force on purchase intention in different contexts (e.g. Agarwal & Prasad, 1998; Citrin et al., 2000; Lu et al., 2011; Escobar-Rodriguez & Carvajal-Trujillo, 2014; Juaneda-Ayensa et al., 2016). It is a key driver in an online environment (San Martin & Herrero, 2012) and it significantly affects purchase intention in an omnichannel context (Juaneda-Ayensa et al., 2016).

Scholars further argue that innovativeness will act as a moderating variable on factors driving technology acceptance (Agarwal & Prasad, 1998; San Martin & Herrero, 2012). Agarwal & Prasad, (1998) position that the higher a consumer's level of innovativeness, the more intense his positive perception of ease of use and usefulness towards the intent to purchase. Thus,
innovativeness moderates these relationships, as for example found by San Martin & Hererro (2012), where innovativeness significantly moderated usefulness and purchase intention.

When using new technologies, Xu & Gupta (2009) and Rogers (2010) argue that innovative consumers display certain characteristic behaviors, such as increased information seeking along with more objective evaluations of the technology used. Thus, innovative users can be said to be more critical and knowledgeable towards the function of different technology, including that of personalization software. While very few studies have connected personalization and innovativeness, there is a theoretical premise that indicates innovativeness to negatively impact the relationship between personalization and purchase intention (Agarwal & Prasad, 1998).

Xu & Gupta (2009) found that innovativeness moderated the relationship between privacy concerns including security and behavioral intention. Furthermore, Herrero & Rodriguez del Bosque (2008) and Rogers (2010) argue that individuals with a high innovativeness can cope with an increased level of uncertainty and are more susceptible to take on more risk. Thus, high innovativeness characterizes the propensity for risk-taking behavior that are present in certain individuals to a higher or lower degree (Xu & Gupta, 2009; San Martin & Hererro, 2012), as confirmed in studies by Aldas-Manzano et al. (2009) and Crespo & del Bosque (2008). In other words, innovativeness should positively moderate the relationship between security and purchase intention. Thus, the following hypotheses are proposed:

**H5:** Personal innovativeness will positively moderate the effect between a) perceived ease of use, b) perceived usefulness c) perceived security and purchase intention.

**H6:** Personal innovativeness will negatively moderate the effect between personalization and purchase intention.

2.2.7 Habit

The direct effect of habit is a widely researched phenomenon in marketing, in both the traditional and the online retail context (Khalifa & Liu, 2007). Habit is defined as “the extent to which people tend to perform behaviors automatically because of learning” (Venkatesh et
al, 2012:161) and referees to a certain type of repeated behavior (Aarts et al., 1998; Ouellette & Wood, 1998). It refers to a learned sequence of acts where the response may be functional in reaching certain goals or outcomes (Verplanken et al., 1997).

The influence of habit on purchase intention has been empirically tested in online settings (Chiu et al., 2012; Khalifa & Liu, 2007) and as a key factor driving customer behavior in technology use (Venkatesh et al., 2013; Limayem et al., 2007). However, research postulating habit as a moderating variable in consumer behavior research is lacking (Ji & Wood, 2007). It has been shown to moderate various predictors of consumer behavioral intention (Ji & Wood, 2007) and either strengthen or weaken the relationship between technology use and behavioral intention (Venkatesh, 2012). Further, it has been studied as a moderating factor on Internet usage (Limayem et al., 2011), on technology use (Limayem et al., 2007), and on the relationship between satisfaction and online repurchase intention (Khalifa & Liu, 2007). However, in an omnichannel context, Juaneda-Ayensa et al. (2016) found that habit was not a driver of purchase intention.

Despite this, the importance of habit is believed to increase in line with an expected growth of available omnichannel retail environment (Melero et al., 2016; Valentini et al., 2011). It was therefore proposed that habit should instead be included as a moderating variable in further research (Juaneda-Ayensa et al., 2016), in line with propositions by Agag & El-Masry (2016) and Ji & Wood (2007).

The automaticity of habit allows the behavior to be performed quickly and easily (Wood & Neal, 2009) through simplifying the task at hand (Verplanken et al., 1997). Thus, habit is hypothesized to positively strengthen the relationship between usefulness and consumers’ intent to purchase. Furthermore, since habit implies that the behavior has been performed prior (Oullette & Wood, 1998) it can be argued that the privacy and security concerns experienced by consumers that impact security (Yenisey et al., 2005) is diminished through a prior positive experience. Therefore, this study position habit as positively moderating the relationship between security and purchase intention.

Venkatesh & Davis (2000) indicate that an increasing experience and knowledge of a system will negatively moderate behavioral intention since how easy or difficult it is to use may be an initial concern for consumers when using a system. However, as individuals become more
accustomed to usage, this perceived difficulty will decrease and the effect on behavioral intention will not be as prominent, while forming their intent to purchase (Venkatesh & Bala, 2008). Since habit can partly be formed through repeated experiences, it is postulated that the habit of being an omnishopper will negatively moderate the effect of ease of use on purchase intention. Thus, the following hypotheses are proposed:

**H7**: Habit will positively moderate the effect between, a) perceived usefulness, b) perceived security and purchase intention.

**H8**: Habit will negatively moderate the effect between perceived ease of use and purchase intention.

### 2.3 Conceptual Research Model with Hypotheses

To provide a comprehensive overview and to summarize the theoretical framework, Figure 2 was created to illustrate the relations between presented variables and the proposed hypotheses.
3. Method

This section presents the methodology used when investigating the defined research area. First, the choice of research design is established and theoretically motivated, followed by a description of the criteria for the literature review and the procedure for how an omnichannel context was established. Thereafter, a thorough description of the primary and secondary research strategies are presented along with details of each data collection method, along with an operationalization of the theory. Finally, this section concludes with a short discussion of the quality and limitations of the research.

3.1 General Research Design

The aim of the study was to take a consumer perspective on the omnichannel phenomena, which according to Bell et al. (2014) is the most constructive way to navigate research within omnichannels. Weathington et al. (2012) argue that replication play an important part in research. This study will allow partial replication of previous findings on technology acceptance and use, while extending the understanding of the phenomena in an omnichannel context.

The nature of the research design was explanatory since the causal relationship between antecedents and consumer behavioral intention was established (Saunders et al., 2012). The objective of this study was to test a cause-and-effect relationship between independent variables (ease of use, usefulness, security and personalization) and dependent variable (purchase intention) within a set context. As well as, to investigate the interaction effect of the moderating variables innovativeness and habit.

The research took a deductive approach since it began with an extensive literature review, from where hypotheses were formed and tested (Saunders et al., 2012). Hypotheses are often derived from previous research and based on existing theories (Weathington et al., 2012). They are defined as “a specific prediction about the relation among two or more variables” (Weathington et al., 2012:42). The literature review guided this study’s hypotheses formulation on the direct as well as the moderating relationship among the variables.
A mixed method research design was utilized, where quantitative and qualitative data was collected and utilized to examine the topic, since it strengthens the quality of interpretation (Bryman & Bell, 2011; Saunders et al., 2012). The quantitative findings played a dominant role while the qualitative findings played a supporting role. Primary data was collected through the distribution of a web-based survey. According to Saunders et al. (2012), this is favorable for explanatory purposes where a cause-and-effect relationship are to be determined. To strengthen the understanding of the primary data, in-depth interviews was conducted as interviews are often used to explore the beliefs, experiences and perspectives of individuals (Gill et al., 2008; Saunders et al., 2012). Allowing for a deeper understanding of the reasoning behind the quantitative findings enabled a more comprehensive understanding since both sets of result were interpreted together (Saunders et al., 2012).

This chosen research method was deemed suitable for two main reasons. First, it allowed an examination of the impact of four antecedents on purchase intention, while also investigating the moderating roles of innovativeness plus habit to an increased degree. Secondly, it allowed testing and generalizing of theory with the purpose of generating new scientific knowledge (Calder & Tybout, 1987; Saunders et al., 2012).

3.2 Literature Review

A comprehensive literature review was performed to gain a deeper understanding into the concept of omnichannel and the theoretical constructs that could be used to study the area. The literature review emanated from a wide keyword search within Uppsala University’s library database and Google Scholar. The keywords revolved around our primary focus; omnichannel, omnichannel retail and omnishopper, which led us to the TAM-model. From there, keywords emanated around what would become the theoretical framework; technology adoption, security, personalization, innovativeness and habit. The literature utilized for the theoretical review were all published in an academic journal or through a publishing company. White papers published by renowned consultancy firms provided a current prospective of omnichannel. We employed a very critical eye when reviewing these types of reports, since one can argue that there are questionable purposes for these types of publications.
Through this review, several authors and scholarly articles were identified as cited and sourced more often than others. Based on their relevance, these articles were prioritized to the extent possible and from their reference lists, further articles on the topic were discovered and reviewed. For definitions of theoretical constructs, several articles were reviewed to check for commonalities in the definitions. Thereafter, articles used to define the concepts were to the extent possible filtered on highest cited to increase the authority and credibility of the definition (Meier, 2011). The literature review data was gathered for the duration of three months in the beginning of 2017.

3.3 Ensuring Consumer Omnichannel Context

A representative omnichannel context was critical to establish prior to the construction of the web-based survey and a methodological choice made was to investigate more than one retailer to ensure access to a representative and large enough sample. To decrease the possible consequences stemming from differences among the retailers’ provided consumer experience, homogeneity among the chosen firms was considered important to enable comparability of the collected data. A set of criteria was thus imposed to ensure that the retailers provided a similar context. To create the list of retailers, secondary data was utilized. The use of secondary data enabled an increased number of companies to be investigated; one of the benefits of secondary data, as elaborated on by Saunders et al. (2012).

Initially, retailers had to offer home decor and furnishing products and be active on the Swedish market, both offline through physical stores and online through e-commerce. The website Allabolag.se was used, where a comprehensive list of retailers operating in the home decor and furnishing market in Sweden was compiled. The retailers were then filtered on highest turnover, and each with a turnover above 500 million SEK was selected. Turnover was established as a valid criteria based on the assumption that a higher turnover was likely to be associated with higher customer recognition. This was vital to ensure a large enough sample. At this stage, a list of six companies was gathered; IKEA AB, MIO Försäljning AB, Bro Möbler AB, SOVA AB and TM-Helsingborg, Åhléns AB.

Since omnichannels was to be investigated from a consumer perspective in this study, the next step was to limit the list to retailer brands that were customer facing. Bro Möbler AB
only operate retail stores under the MIO brand and was thus considered part of MIO, resulting in a total list of five companies. Thereafter, the list was further limited based on whether they possessed a defined set of omnichannel initiatives, done to ensure that the chosen retailers provide an omnichannel context. To identify this context, a set of omnichannel initiatives were chosen based on a yearly report published by Avensia (2015). The report investigated Nordic firms’ progress on a comprehensive list of 15 omnichannel initiatives. The phenomenon of omnichannel has experienced varying progress in different geographical markets (PwC, 2015) and thus using a Swedish report increased relevance for the scope of the study. The report showed what percentage specific omnichannel initiatives were used by retailers. Out of the 15 initiatives presented in the report, the five most commonly used across the Swedish market were chosen as our basis for what an omnichannel context is. In addition, since none of these initiatives addressed personalization, one more initiative from an Accenture (2016) report was added to ensure a personalized omnichannel context. See Table 1 below for a list of the six omnichannel criteria.

<table>
<thead>
<tr>
<th>IKEA</th>
<th>Åhléns</th>
<th>Mio</th>
<th>SOVA</th>
<th>Trademax (TM Helsingborg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is it possible to see stock from physical stores online?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Is a product that has been put in the shopping basket on a mobile device still there when using the same account on a laptop or other device?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Do the firm use the same offers online and offline?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Is there a map with directions online to your closest physical store?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Is it possible to order online and return the product in physical store?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Do the retailer offer personalized messages/promotions based on previous interactions and/or purchases?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Omnichannel scoring

All five retailers were analyzed according to the same process where channels; website (desktop and mobile), physical store, social media (Facebook and Instagram) and email newsletters, were examined. The aim was to determine whether a potential consumer could experience these omnichannel initiatives during their purchase process and thus could be expected to have completed their purchase process in an omnichannel context. Therefore, a desktop research as well as visits to the physical stores by the researchers was deemed as suitable methods. This culminated in a list of three retailers; IKEA, Åhléns and Mio, whom
possessed all six omnichannel initiatives. They were thus considered to provide a comparable omnichannel context. See Table 1 above for the retailers’ omnichannel scoring.

### 3.4 Survey

The dominant research strategy for this study was to distribute a web-based survey. Surveys are commonly used in business research when taking a deductive research approach (Bryman & Bell, 2011; Saunders et al., 2012). This strategy allows for collection of quantitative data, which can then be analyzed using statistics (Fink, 2009; Saunders et al., 2012). A survey method presents certain advantages since it serves as the fundament for building generalizability while also enabling replicability (Teo & Benbasat, 2003; Fink, 2009). The survey was created with Google forms and it was self-completed and anonymous, where respondents themselves were asked to fill out the survey. Researchers are advised to allow for between 2-6 weeks for the completion of an internet-based survey (Saunders et al., 2012). Due to time constraints, the survey was thus open for respondents during two weeks in March 2017.

The choice to use a non-probability self-sampling was determined as the most suitable to adequately answer the research questions while taking the study’s limited resources into account (Saunders et al., 2012). A non-probability sampling includes an element of subjective judgment, but is commonly used in marketing research (Bryman & Bell, 2011). Self-sampling was determined as an appropriate technique to locate the sample and this technique allows each respondent to voluntarily identify their wish to partake in the research. Thus, respondents who partake in such a voluntary survey often do so due to their opinions on the subject (Saunders et al., 2012). No further incentives to participate in the survey were provided.

An invitation to complete the survey, with a description of the purpose of the research, was posted in relevant Internet forums and Facebook groups pertaining to furniture, home decor and interior inspiration since it was assumed that members of these groups were relevant for the study. The forums and groups used were both open and closed, with membership ranging from 2,000-14,000 individuals from all over Sweden and no specific requirements for membership. Prior to posting the invitation in closed groups, the administrators of each
Facebook group was contacted to ask for permission to post in order to minimize the risk of potential negative comments. The forums used were; familjeliv.se, vivilla.se, alltforforaldrar.se and styleroom.se. The Facebook groups used were; Inredning, inspiration & renovering; Inredning, heminredning, tips & inspiration; Inredning i din egen stil, Möbler/Inredning säljes och köpes, Pyssel & Piff inredning; Inredningsgärir; Inredning & Renovering.

The sample was limited to omnishoppers as defined by Juaneda-Ayensa et al. (2012) active in the Swedish market, with previous purchase experience of home decor and furnishing from either IKEA, Åhléns or Mio. To improve consumer recall, only omnishoppers who had completed their purchase process during the six months prior to the study were included in the sample. As the retail experience was the focus of the study, a choice was made to not take into account what brand the specific item bought was from, but rather focused on the retail brand that the consumer purchased from.

To ensure an understanding of the questionnaire the measurement scales were translated from English into Swedish, through a parallel approach to ensure coherence in the understanding and translation of the questions (Fink, 2009; Saunders et al., 2012). This translation technique consists of two independent persons translating the source questionnaire from English into Swedish, which are then compared to each other and compiled into a final version (Bryman & Bell, 2011; Saunders et al., 2012). This technique often leads to a good wording of the target questionnaire (Saunders et al., 2012), which eases understanding.

The survey was divided into three parts and contained 26 questions in total. The first part contained one question to ensure that the respondent could be classified as an omnishopper. The second part contained 22 questions connected to theoretically based hypotheses were three to four questions were asked for each variable. See section 3.5 for a detailed operationalization of the theory. Respondents were asked to rate each question on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The third part of the survey contained three demographic questions on gender, age and occupation. Finally, respondents were asked to indicate how frequently they purchase home decor and furnishing.

The data collection yielded 192 submitted responses, out of which 35 were deemed as not representative due to not being omnishoppers or recent consumers of the chosen retailers. The
sample contained 58% females and 42% males. The median age of respondents was 29 years old, with an age span ranging from 21 to 53 years old. A majority of respondents were employed (60.5%), followed by students (19.1%), self-employed (16.6%) and retirees (0.6%). Meanwhile, 3.2% identified their occupation as being “other”. Over half of the respondents (53.5%) had utilized two channels during the purchase process, followed by 34.4% who had used three channels and 12.1% stating they used four or more channels. The distribution of how often the respondents purchased home decor and furnishing were the following; 7% purchased several times a month, 38.2% once a month, 47.8% purchased once every six months and 7% once a year.

3.4.1 Pilot Test

A pilot test of the survey was performed prior to final distribution to enable refinement of the questions. It was performed to ensure that the questions, scales and instructions were clear and understandable (Pallant, 2013). This step was performed to maximize the response rate as well as give indications on validity and reliability of the collected data (Saunders et al., 2012). Fink (2009) recommend that a minimum amount of respondents in a student-created pilot questionnaire is ten and thus the obtained sixteen answers were deemed satisfactory. The pilot survey should be tested on a similar sample to that of which researchers expect their future sample to look like (Saunders et al, 2012; Pallant 2013). It is furthermore recommended that the same sampling method is used for both the pilot and main test (Bryman & Bell, 2011). Thus, the pilot test was distributed through one interior design Facebook group using a self-selection sampling method. The result indicated that there were minor immediate issues with wording and a clarification was therefore provided. A technical mistake was revealed and easily corrected.

3.5 Measurements & Operationalization of theory

The questions used to measure the data gathered in the survey was operationalized from the theoretical constructs of the conceptual research model. Appendix 1 provide a list of the variables included in the conceptual research model, presented together with the questions used to measure each variable. All questions were adapted from recognized studies as identified in the literature review for validity and reliability reasons.
An omnishopper is defined as a consumer who “use multiple channels during their shopping journey” (Juaneda-Ayensa et al., 2016:2). One question was asked to identify whether the respondent was an omnishopper. The phenomenon was operationalized as the following question; *With the most recent purchase occasion from Ikea, Mio or Åhléns in mind, how many channels* did you use when interacting with the company? Both prior to, during and after the actual purchase occasion. (*Channels: physical store, website on computer, website on mobile device and/or tablet, social media, mobile app, email, telephone, catalogue, chat, in-store kiosks etc.)*

Perceived ease of use (PEUK) and Perceived usefulness (PUK) have often been operationalized from the same source in prior research to ensure that these two constructs are discernible. Keeping with Venkatesh et al. (2003), Venkatesh et al. (2012) and Juaneda-Ayensa et al. (2016), this study operationalizes the construct in line with the definition put forth; “the degree to which a person believes that using a particular system would be free of effort” (Davis, 1989:320). The nature of the constructs is discussed in relation to technology acceptance, emanating from the TAM-model, and hence the questions asked pertain to the online environment of the consumer experience. The following questions were asked;

*PEUK1 I find the different online channels easy to use.*
*PEUK2. Learning how to use the different online channels is easy for me.*
*PEUK3. My interaction with the different online channels is clear and understandable*

*PUK1. Being able to use multiple channels throughout the purchase process allows me to purchase quickly.*
*PUK2. Being able to use multiple channels throughout the purchase process is useful to me*
*PUK3. Being able to use multiple channels throughout the purchase process makes my life easier*

Perceived security (PRK) was adapted from Cha (2011) and Juaneda-Ayensa et al. (2016) operationalization of the construct, in line with their description of security as the perception of internet as a secure forum for sending personal or sensitive information. Thus, the following three items were used to measure this construct;

*PRK1. Making payments online is safe*
*PRK2. Giving my personal data during the purchase process seems safe*
*PRK3. I feel safe that information I submit online will not be misused*
Perceived personalization (PPK) is operationalized from Pappas et al. (2014), with three items surveying aspects of personalization in both the offline and online context. The operationalization is in line with the definition provided by Pappas et al. (2012) and Pappas et al. (2014) as the ability of the retailer to provide content tailored to individuals with the main objective to satisfy consumers dependent on their individual needs and behaviors. Thus, the following three items were used to measure this construct:

PPK1. I feel that the company send me personalized offerings of products I strongly consider
PPK2. I feel that the company make me purchase recommendations that I might like
PPK3. I feel that the company is able to tailor parts of their website based on my previous interactions with them

Keeping with the definition of personal innovativeness (INK) as “the degree to which an individual is relatively earlier in adopting new ideas than other members of his social system” (Rogers & Shoemaker, 1971:27) and their propensity to try new channels and experiences (Juaneda-Ayensa et al., 2016). The theoretical construct of innovativeness is operationalized into four items on the measurement scale, taken from Goldsmith & Hofacker (1991), Lu et al. (2005) and Juaneda-Ayensa et al. (2016).

INK1. When I hear about a new technology, I search for a way to try it
INK2. Among my friends or family, I am usually the first to try new technologies
INK3. Before testing a new product or brand, I seek the opinion of people who have already tried it
INK4. I like to experiment and try new technologies

In line with the perspectives put forth by Limayem et al. (2007), habit is in this study defined as “the extent to which people tend to perform behaviors automatically because of learning” (Venkatesh et al., 2012:161). The construct is often operationalized and measured through a self-report of frequency of past behavior (Aarts et al., 1998). In line with Vankatesh et al. (2013), Limayem et al. (2007) and Juaneda-Ayensa et al. (2016) this study operationalize the construct through three items adapted from these scholars. Thus, the following questions measured habit:
**HBK1** The use of different channels throughout the purchase process has become a habit for me.

**HBK2.** I frequently use different channels throughout the purchase process

**HBK3.** I must use different channels throughout the purchase process when shopping

*Purchase intention* (PIK) is defined as the consumer’s intention or plan to purchase from one of the channels offered by a brand (Pantano & Viassone, 2015; Juaneda-Ayensa et al., 2016). The construct was thus operationalized into the following three items adapted from Pantano & Viassone (2015) and Juaneda-Ayensa et al., (2016):

- **PIK1.** I would purchase in this kind of store
- **PIK2.** I would tell my friends to purchase in this kind of store
- **PIK3.** I would like to repeat my experience in this kind of store

### 3.6 In-depth Interviews

To strengthen the dominant set of quantitative results, four semi-structured interviews were conducted. As motivated by Saunders et al. (2012), Bryman & Bell (2011) and Gill et al. (2008), such interviews are suitable to explore and explain themes that were identified from the survey result. The findings from these interviews were beneficial for a deeper understanding of the background and reasoning behind respondents’ answers in the survey.

The interviews were conducted with respondents who had previously participated in the survey. The survey respondents were given the voluntary choice to share their e-mail address if they were willing to be contacted for a further interview. 17 respondents indicated their willingness to contribute further and were thus contacted. The aim was to perform face-to-face interviews in Stockholm, which limited the relevant number of respondents to 11 for practical reasons. From this group, a suitable sample for in-depth interviews were chosen on the basis of how well they represented the total sample in regards to gender and the number of channels used when purchasing. Thus, four respondents remained; a 27-year old female who had used two channels (Respondent 1); a 31-year old female who had used three channels (Respondent 2); a 36-year old male who had used three channels (Respondent 3); a 24-year old male who had used two channels (Respondent 4).
Each interview was conducted face-to-face at a location suggested by each respondent and held during a maximum of 30 minutes. This time frame was considered enough time to gather the data since all respondents had prior familiarity with the focus of the interview. More complex questions were further explained and definitions were presented for validity reasons (Saunders et al., 2012). Two researchers with different responsibility areas conducted the interviews; one leading the interview and the other taking notes. All interviews were, with the acceptance of the respondent, audio-recorded and transcribed to allow for an analysis of the way questions were answered and to minimize data loss (Gill et al., 2008; Bryman & Bell, 2011). After each interview, immediate reflections were discussed and practical details regarding the interview were recorded to ensure that no data was lost (Gill et al., 2008; Saunders et al., 2012).

3.6.1 Interview Guide

An interview guide was conducted and utilized to guide the interview while still enabling flexibility (Bryman & Bell 2011; Saunders et al., 2012). The interview guide is enclosed in Appendix 3. The interviews were conducted in Swedish and quotes used in the study were then translated individually to English by both partaking interviewers and then compared to increase accuracy. Each interview began by informing the respondent that there were no right or wrong answers to any questions and that they had the right to skip questions upon request. However, this option was never requested.

The guide was built around the stages of the purchase process, in connection to probing questions around the theoretical framework. The theoretical constructs were operationalized in line with the questionnaire. Each respondent was asked to take the interviewers through the same purchase process as identified in the survey, from pre- to post-purchase. They were asked to visually illustrate and map their purchase process on the stimuli material, see Appendix 3, while identifying pain and pleasure points throughout the process. Respondents were asked probing questions to elaborate on specific phenomenon or pain/pleasure points that the respondent touched upon. These probing questions were used flexibly and adopted based on each specific respondent’s purchase process. This procedure allowed for a more open discussion with less concern for biases emanating from direct questions on the relationships in the research model.
To wrap up the interviews, respondents were asked to discuss how they believed their prior experience affected their activities during the purchase process to see whether respondents might indicate that there is a relationship between habit and the concepts (Forsgren et al., 2002). The same procedure was done regarding innovativeness to examine if respondents believed that their relationship to technology might impact their use of multiple channels.

3.7 Quality of Research

Through the chosen survey method, reliant on self-report measures, a potential risk of common method bias could be found. Bagozzi & Yi (1991) argue that method biases can pose a risk to the validity of claims on the relationship between the variables. Since this study used an online questionnaire, which decreased the risk of respondents’ answers’ being influenced by what is considered as a socially desirable answer (Dillman, 2009), the risk was mitigated. Moreover, Harman’s single-factor test was performed. All question items were loaded into a principal component exploratory factor analysis with a forced one-factor solution. If the total variance by one single factor is above 50 %, it suggests that there is common method bias affecting the data (Podsakoff et al., 2003) However, the test revealed a total variance of 31.079 % for one factor and thus, common method bias was not of concern.

Furthermore, data quality issues as stated by Saunders et al. (2012) were addressed before conducting the in-depth interviews. The issue regarding reliability address the concerns for replicability, which is affected by the structure of the asked questions and potential bias. Since semi-structured interviews were conducted, varying follow-up questions were asked based on respondents answers and were adapted to the specific situation (Gill et al., 2008). Hence, exact replicability is not realistic. Regarding bias, a strong concern was placed on the fact that the interviews were conducted post-collection of quantitative data and based around the conceptual theoretical framework and identified themes from the dominant set of results. To deal with this methodological choice, Saunders et al. (2012) emphasize the risk of probing and leading questions. To decrease the risk of interviewee bias, this was taken into consideration when composing and asking questions. However, the risk of biased questions and answers could not be fully eliminated due to the human factor present in all interviews.
4. Results

Within this section the result from our quantitative study is presented together with a description of the process. Initially, construct validity and reliability are established. Thereafter, the exploratory factor analysis of all constructs is presented, which is followed by hypotheses testing of the direct effects and the moderating effects. Finally, the findings are summarized and illustrated in the research model. All results are presented with the assumption that everything else is held constant - ceteris paribus.

4.1 Construct Validity & Reliability

To perform the statistical analyses, the software IBM SPSS Statistics 22 was used. The Likert scales in the study were treated as interval-level measures in line with Knapp (1990), which Jamieson (2004) states has become common practice to assume for these types of scales. Construct validity needed to be established between the seven constructs in the conceptual model of this study, and as such, convergent and discriminant validity were considered.

In accordance with Pallant (2013), the data was initially screened for errors and missing values. All cases that determined that the respondent was not an omnishopper, or had not purchased from the chosen retailers, were excluded from the data set. Hence, out of a total of 192 cases, a data set of 157 cases remained. Thereafter, no errors were revealed and the data set contained 100% valid cases.

The nature of the data was then explored (Pallant, 2013). However, since the data was collected through a seven-point Likert scale, normality was not of great concern since data collected through this scale is often skewed or polarized (Jamieson, 2004). Nonetheless, to ensure that no great violations existed, normality for each independent variable was reviewed. For six of the variables, it revealed a satisfactory skewness and kurtosis with an absolute value of less than 1 (See Table 2 below). For usefulness, a skewness of -1.014 violated normality. As suggested by Pallant (2013), the histogram and the normal probability plot (P-P) were thus inspected to ensure normality. No great violation was found and distribution was deemed normal.
The analysis proceeded with an exploratory factor analysis where all 22 items were included. While a confirmatory factor analysis could be argued as a suitable method (Juaneda-Ayensa et al., 2016), an exploratory factor analysis was deemed a pleasing method for the purpose of this study (Pallant, 2013). A satisfactory seven-factor solution could not be achieved despite the constructs being theoretically independent. Therefore, in line with Hackman et al. (1999) two separate factor analyses were conducted. The first included items connected to independent variables (Ease of use, Usefulness, Security, Personalization) and the dependent variable (Purchase intention) and the second included items connected to the moderating variables (Innovativeness and Habit). These will be presented separately below.

### 4.1.1 Factor analysis: Independent & Dependent variables

To assess construct validity between the independent variables; Ease of use (PEUK), Usefulness (PUK), Security (PRK), Personalization (PPK) and the dependent variable; Purchase intention (PIK) an exploratory factor analysis was conducted. The analysis was conducted using principal component analysis with varimax rotation. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett’s Test of Sphericity were studied.

The result had eigenvalues greater than 1, a middling KMO at .781, which is over the recommended level of .6 (Hair et al., 2014), and Bartlett’s Test being found significant (p<.000). All communalities were above .5 and hence exceeded the recommended cut-off value of .5 (Hair et al., 2014). The result had a cumulative explained variance of 79.075 and no item cross-loaded. A satisfactory five-factor solution was found and construct validity was achieved for all items.
Reliability was assured using Cronbach’s coefficient alpha, which is the most commonly used statistic to measure internal consistency (Pallant, 2013). *Ease of use* (.830), *Usefulness* (.867), *Security* (.807), *Personalization* (.870) and *Purchase intention* (.878) had acceptable alphas. Thus, all five constructs exceeded the preferred level of .7 (Nunnally, 1978) and the data showed good internal consistency. See Table 3 below for an overview.

<table>
<thead>
<tr>
<th>Independent &amp; Dependent Variables</th>
<th>Chronbach’s alpha</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceived ease of use</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>PEUK1. I find the different online channels</em>* easy to use.*</td>
<td>.830</td>
<td></td>
</tr>
<tr>
<td><em>PEUK2. Learning how to use the different online channels</em>* is easy for me.*</td>
<td></td>
<td>.804</td>
</tr>
<tr>
<td><em>PEUK3. My interaction with the different online channels</em>* is clear and understandable*</td>
<td></td>
<td>.832</td>
</tr>
<tr>
<td><strong>Perceived usefulness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>PUK1. Being able to use multiple channels throughout the purchase process allows me to purchase quickly.</em></td>
<td></td>
<td>.867</td>
</tr>
<tr>
<td><em>PUK2. Being able to use multiple channels throughout the purchase process is useful to me</em></td>
<td></td>
<td>.833</td>
</tr>
<tr>
<td><em>PUK3. Being able to use multiple channels throughout the purchase process makes my life easier</em></td>
<td></td>
<td>.869</td>
</tr>
<tr>
<td><strong>Perceived security</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>PRK1. Making payments online is safe</em></td>
<td></td>
<td>.807</td>
</tr>
<tr>
<td><em>PRK2. Giving my personal data during the purchase process seems safe</em></td>
<td></td>
<td>.765</td>
</tr>
<tr>
<td><em>PRK3. I feel safe that information I submit online will not be misused</em></td>
<td></td>
<td>.803</td>
</tr>
<tr>
<td><strong>Perceived personalization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>PPK1. I feel that the company send me personalized offerings of products I strongly consider</em></td>
<td></td>
<td>.870</td>
</tr>
<tr>
<td><em>PPK2. I feel that the company make me purchase recommendations that I might like</em></td>
<td></td>
<td>.898</td>
</tr>
<tr>
<td><em>PPK3. I feel that the company is able to tailor parts of their website based on my previous interactions with them</em></td>
<td></td>
<td>.919</td>
</tr>
<tr>
<td><strong>Purchase intention</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>PIK1. I would purchase in this kind of store</em></td>
<td></td>
<td>.878</td>
</tr>
<tr>
<td><em>PIK2. I would tell my friends to purchase in this kind of store</em></td>
<td></td>
<td>.879</td>
</tr>
<tr>
<td><em>PIK3. I would like to repeat my experience in this kind of store</em></td>
<td></td>
<td>.846</td>
</tr>
</tbody>
</table>

Table 3. Psychometric properties: Independent & Dependent variables
4.1.2 Factor analysis: Moderating variables

The second exploratory factor analysis was conducted to assess construct validity between the moderating variables Innovativeness (PIK) and Habit (HBK) in the same way as previous analysis, by using principal component analysis with varimax rotation. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett’s Test of Sphericity were also studied.

After running an initial exploratory factor analysis with all seven items representing the moderating variables, one item was dropped. With communalities at .209 and a factor loading at .458 the item INK3 was dropped since it did not contribute enough to explain the variance in the model. When running the analysis with the six remaining items, the final solution had eigenvalues greater than 1, a mediocre KMO at .683, which is over the recommended level of .6 (Hair et al., 2014) and Bartlett’s Test being found significant (p<.000). All communalities were above .5 and hence exceeded the recommended cut-off value of .5 (Hair et al., 2014). The result had a cumulative explained variance of 76.8 and no item cross-loaded. A satisfactory two-factor solution was found and construct validity was achieved for all six remaining items.

Reliability was once again assured using Cronbach’s coefficient alpha. Innovativeness had an alpha of .753 and Habit had an alpha of .814. Thus, both constructs exceeded the preferred level of .7 (Nunnally, 1978). Consequently, the variables showed good internal consistency. See Table 4a and 4b below for an overview of psychometric properties.

<table>
<thead>
<tr>
<th>Moderating variables</th>
<th>Chronbach’s alpha</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal innovativeness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INK1. <em>When I hear about a new technology, I search for a way to try it</em></td>
<td>.753</td>
<td></td>
</tr>
<tr>
<td>INK2. <em>Among my friends or family, I am usually the first to try new technologies</em></td>
<td></td>
<td>.931</td>
</tr>
<tr>
<td>INK3. <em>Before testing a new product or brand, I seek the opinion of people who have already tried it</em></td>
<td></td>
<td>.731</td>
</tr>
</tbody>
</table>

Table 4a. Psychometric properties: Moderating variables
Moderating variables

<table>
<thead>
<tr>
<th>Habit</th>
<th>Chronbach’s alpha</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.814</td>
<td></td>
</tr>
</tbody>
</table>

**HBK1.** The use of different channels (physical store, website, mobile app) throughout the purchase process has become a habit for me.

**HBK2.** I frequently use different channels throughout the purchase process

**HBK3.** I must use different channels throughout the purchase process when shopping

Table 4b. Psychometric properties: Moderating variables

### 4.2 Direct Effects

In order to test the stated hypotheses of the direct effects of the independent variables (Hypotheses 1-4), an ordinary least squares multiple regression was performed. Stevens (1996:72) suggest that around “15 participants per predictor are needed for a reliable equation” in multiple regressions. With 157 cases divided on six predictors, translating into 26 cases per prediction, this was fulfilled. Before conducting the analysis, the data was checked to verify that the assumptions of normality, multicollinearity and homoscedasticity underlying regression analysis were not violated (Pallant, 2013).

No multicollinearity was found between the four predicting independent variables as no correlation between independent variables exceeded .7, in line with the recommendation by Pallant (2013). In addition, both tolerance and variance inflation factor (VIF) levels were well within Pallant’s (2013) recommended thresholds of tolerance levels above .1 or VIF below 3 (Hair et al., 2014). See Table 5.

<table>
<thead>
<tr>
<th></th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEUK</td>
<td>.793</td>
<td>1.261</td>
</tr>
<tr>
<td>PUK</td>
<td>.768</td>
<td>1.302</td>
</tr>
<tr>
<td>PRK</td>
<td>.822</td>
<td>1.216</td>
</tr>
<tr>
<td>PPK</td>
<td>.930</td>
<td>1.075</td>
</tr>
</tbody>
</table>

Table 5. Collinearity Statistics
Furthermore, the normal probability plot (P-P) of the regression standardized residual and the scatterplot should be analyzed to check for violations of homoscedasticity and normality (Pallant, 2013). To test for normality, the normal P-P plot was assessed to find a linear diagonal pattern that, despite a minor deviation towards a bow-shape pattern indicating skewness, was considered reasonably normal and not of major concern for further regression analysis since Pallant (2013) states that the distribution of scores is often skewed in a small sample. A violation of homoscedasticity was not of great concern, as the data collected was not examined over time. When the scatterplot was examined, a somewhat rectangular centralized pattern was found, which suggests that there were no major violations of homoscedasticity (Pallant, 2013). Thereafter, a multiple regression was performed to test our hypotheses. This gave us the following regression equation:

\[ PIK = \beta_0 + \beta_1 PEUK + \beta_2 PUK + \beta_3 PRK + \beta_4 PPK + \epsilon \]

The four independent variables; PEUK, PUK, PRK and PPK were analyzed to predict the dependent variable PIK. The analysis (see table 6 below) tested the direct effects of the model; hypotheses H1, H2, H3 and H4. This regression analysis was performed without the moderating effects, since under an interval scale measurement, direct effects are advised to not be interpreted in the presence of the moderating terms (Venkatesh & Davis, 2000). The model was a fit for the data, with \( F(4,152)=21,455 \) and \( R^2 \) of .361, explaining the variance in the dependent variable (Pallant, 2013). Thus, the four direct affects; ease of use, usefulness, security and personalization were able to explain 36.1% of the variance in purchase intention.
Table 6. Regression Analysis

H1 postulated that ease of use has a positive effect on purchase intention but was not supported ($\beta_2=.085$; $t=1.172$, $p<.243$) since it did not reach the conventional significance level cut-off point at .05 (Pallant, 2013). Meanwhile, a positive effect for usefulness on purchase intention was found ($\beta_1=.245$; $t=3.317$, $p<.001$). Therefore, H2 was supported. In line with H3, security was found to have a significant positive effect on purchase intention ($\beta_3=.411$; $t=5.742$, $p<.000$) and thus, H3 was supported. Finally, H4 was not supported as personalization did not positively affect purchase intention ($\beta_4=.059$; $t=0.883$, $p<.379$). Overall, H2 and H3 were supported, while H1 and H4 were not supported.

The analysis provided the following regression equation:

$$PIK = 1.414 + 0.105*PEUK + 0.266*PUK + 0.390*PRK + 0.044*PPK + \varepsilon$$

4.3 Moderating Effects

To examine the effect of the moderating variables innovativeness and habit on the relationship between each antecedent and purchase intention, several moderated regression analyses were performed. The data was analyzed to observe whether these hypothesized relationships were impacted by the individual’s personal characteristics; innovativeness and
habit. Irwin & McClelland (2001) suggest that despite direct effects being found not to be significant, they should remain in the analysis of the interaction term. Only when all components of the interaction (i.e. the independent variables) are included in the model is it possible to state that the interaction term represents the moderating effect (Irwin & McClelland, 2001). Thus, all hypotheses were tested with all components of the interaction included in the moderated regression models.

Issues with multicollinearity often arise when interaction terms are created through multiplying (Evans, 1985; Jaccard et al., 1990). The approach suggested by Jaccard et al. (1990) to avoid multicollinearity through standardization was thus utilized, were each of the six independent variables were mean-centered through a subtraction of the sample mean from each score. Thereafter, the standardized variable for each independent variable was multiplied with the standardized variable of the moderating variable to create the interaction term, used to assess the result for moderating effects. This allowed for all VIF values of the independent variables and interaction effects to be well below the suggested reference point of 10 (Hair et al., 2014).

Thus, the following seven moderating equations were used:

<table>
<thead>
<tr>
<th>Personal Innovativeness</th>
<th>Habit</th>
</tr>
</thead>
<tbody>
<tr>
<td>( PIK = \beta_0 + \beta_1 PEUK + \beta_3 INK + \beta_7 PEUKxINK + \epsilon )</td>
<td>( PIK = \beta_0 + \beta_1 PEUK + \beta_9 HBK - \beta_{11} PEUKxHBK + \epsilon )</td>
</tr>
<tr>
<td>( PIK = \beta_0 + \beta_2 PUK + \beta_3 INK + \beta_8 PUKxINK + \epsilon )</td>
<td>( PIK = \beta_0 + \beta_2 PUK + \beta_9 HBK + \beta_{12} PUKxHBK + \epsilon )</td>
</tr>
<tr>
<td>( PIK = \beta_0 + \beta_4 PRK + \beta_3 INK + \beta_{10} PRKxINK + \epsilon )</td>
<td>( PIK = \beta_0 + \beta_4 PRK + \beta_9 HBK + \beta_{13} PRKxHBK + \epsilon )</td>
</tr>
<tr>
<td>( PIK = \beta_0 + \beta_5 PPK + \beta_3 INK + \beta_{10} PPKxINK + \epsilon )</td>
<td></td>
</tr>
</tbody>
</table>

Four moderated regression models were performed to assess the moderating effect of innovativeness between the predictors and purchase intention. Baron & Kenny (1986) argue that if the interaction term is significant below .05, then it is moderating the relationship between the independent and the dependent variable.
Hence, the significance of each interaction term was assessed, revealing that the relationship between personalization and purchase intention was significantly and negatively moderated by innovativeness at $\beta_{10} = -.208$, $t = -2.699$ (p<.008). The model had an overall fit of the data with $R^2 = .123$, $F(3,153) = 7.133$ (p<.001). Thus, hypothesis H6 was supported. To compare whether the interaction effect had helped to explain additional variance in purchase intention, it was compared to the regression model without the interaction effect. The first model explained only 8.1% of the variance ($R^2 = .081$), while the interaction effect explained 12.33% of the variance in purchase intention.

Meanwhile, hypotheses H5a, H5b, H5c, were not supported as innovativeness was shown to not moderate the relationship between the predictors and purchase intention. H5a had an $R^2 = .150$, $F(3,153) = 8.972$ (p<.001), and was not supported ($\beta_7 = -.043; t = -.560, p < .576$). Thus, the hypothesized positive moderating effect between ease of use and purchase intention was not supported. Further, H5b was not supported ($\beta_8 = .109; t = 1.515, p < .132$) as innovativeness was found to not positively moderate the relationship between usefulness and purchase intention, with an overall fit of the data at $F(3,153) = 15.387$ (p<.001) with a corresponding $R^2 = .232$. The third regression model performed fit the data at $R^2 = .298$, $F(3,153) = 21.695$ (p<.001). However, the interaction effect was not significant ($\beta_9 = -.208; t = -2.699, p < .633$) and H5c was thus not supported as innovativeness was not shown to positively moderate the relationship between security and purchase intention. See Table 7 below for an overview of the moderating effects and Appendix 4 for a model summary.

<table>
<thead>
<tr>
<th>Interaction effect</th>
<th>B</th>
<th>Std. Error</th>
<th>$\beta$</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEUKxINK</td>
<td>-.046</td>
<td>.083</td>
<td>-.043</td>
<td>-.560</td>
<td>.576</td>
</tr>
<tr>
<td>PUKxINK</td>
<td>.113</td>
<td>.075</td>
<td>.109</td>
<td>1.515</td>
<td>.132</td>
</tr>
<tr>
<td>PRKxINK</td>
<td>-.031</td>
<td>.065</td>
<td>-.033</td>
<td>-.479</td>
<td>.633</td>
</tr>
<tr>
<td>PPKxINK</td>
<td>-.211</td>
<td>.078</td>
<td>-.208</td>
<td>-2.699</td>
<td>.008*</td>
</tr>
</tbody>
</table>

Table 7. Moderating effects: Innovativeness

39
This provided the following moderating equations:

\[
\text{PIK}^\wedge = 2.944 + 0.373 \times \text{PEUK} + 0.183 \times \text{INK} - 0.046 \times \text{PEUK}x\text{INK} + \epsilon \\
\text{PIK}^\wedge = 2.474 + 0.459 \times \text{PUK} + 0.148 \times \text{INK} + 0.113 \times \text{PUK}x\text{INK} + \epsilon \\
\text{PIK}^\wedge = 2.936 + 0.472 \times \text{PRK} + 0.092 \times \text{INK} - 0.031 \times \text{PRK}x\text{INK} + \epsilon \\
\text{PIK}^\wedge = 4.708 + 0.127 \times \text{PPK} + 0.166 \times \text{INK} - 0.211 \times \text{PPK}x\text{INK} + \epsilon
\]

Furthermore, three similar regression models were performed to assess the interaction effect of the second moderating variable – habit, which was hypothesized to moderate the relationship between three of the predictors and purchase intention. The first regression model, to examine hypothesis H7a, showed an overall fit of the data at $R^2 = .368$; $F(3,13)=29.671$ ($p<.001$). The moderating effect was significant at $\beta_{12} = .243$; $t=3.086$ ($p<.002$) and thus the hypothesis was supported as habit positively moderated the relationship between usefulness and purchase intention. To compare whether the interaction effect better explained the variance in purchase intention, it was also compared to the regression model without the interaction effect. The first model explained 32.8% of the variance ($R^2 = .328$), while the interaction effect helped to explain 36.8% of the variance in purchase intention.

The second model had an overall fit of $R^2 = .423$ $F(3,153) =37.428$ ($p<.001$). The interaction effect was not significant ($\beta_{13} = -.084$, $t=-1.328$, $p<.186$) and thus, hypothesis H7b was not supported. Furthermore, the third regression model fit the data at $R^2$ of .346 $F(3,153)=26.964$ ($p<.001$). However, hypothesis H8 was not supported with $\beta_{11} = -.065$; $t=-.995$ ($p<.321$). See Table 8 below for an overview of the moderating effects and Appendix 4 for a model summary.

<table>
<thead>
<tr>
<th>Interaction effect</th>
<th>B</th>
<th>Std. Error</th>
<th>$\beta$</th>
<th>t.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderator PEUKxHBK</td>
<td>-.080</td>
<td>.081</td>
<td>-.065</td>
<td>-.995</td>
<td>.321</td>
</tr>
<tr>
<td>Moderator PUKxHBK</td>
<td>.204</td>
<td>.066</td>
<td>.243</td>
<td>3.086</td>
<td>.002*</td>
</tr>
<tr>
<td>Moderator PRKxHBK</td>
<td>-.094</td>
<td>.071</td>
<td>-.084</td>
<td>-1.328</td>
<td>.186</td>
</tr>
</tbody>
</table>

Table 8. Moderating effects: Habit
This provided the following moderating equations:

\[
\text{PIK}^\wedge = 2.594 + 0.177 \times \text{PEUK} + 0.455 \times \text{HBK} - 0.080 \times \text{PEUK} \times \text{HBK} \\
\text{PIK}^\wedge = 2.012 + 0.235 \times \text{PUK} + 0.461 \times \text{HBK} + 0.204 \times \text{PUK} \times \text{HBK} \\
\text{PIK}^\wedge = 2.427 + 0.304 \times \text{PRK} + 0.368 \times \text{HBK} - 0.094 \times \text{PRK} \times \text{HBK}
\]

### 4.4 Hypotheses overview & Resulting conceptual research model

In summary, while prior research (e.g. Venkatesh et al., 2012; Juaneda-Ayensa et al., 2016; Zhang et al., 2010) indicate the opposite, ease of use and personalization did not significantly impact purchase intention and hypotheses H1 and H4 were not supported. However, usefulness and security were shown to significantly impact purchase intention in an omnichannel context, and hypotheses H2 and H3 were supported. Thus, these findings were in line with previous research (e.g. Venkatesh et al., 2013; Pascual-Miguel et al., 2015; Frasquet et al., 2015).

The standardized coefficients were further examined to allow for a comparison of how the variables contributed to the dependent variable (Pallant, 2013). It revealed that security had a beta-value of .411, compared to usefulness at .245. Thus, security was the strongest predictor of purchase intention, followed by usefulness.

Hypothesis H5a, H5b and H5c regarding the moderating effect of innovativeness were not supported, in contrast to previous research (e.g. Agarwal & Prasad, 1998; San Martin & Herrero, 2012; Aldas-Manzano et al., 2009), while H6 was supported. This was in line with research conducted by Agarwal & Prasad (1998), indicating that innovativeness moderates the negative relationship between personalization and purchase intention. Regarding the moderating effect of habit, H7a was supported with habit positively moderating the relationship between usefulness and purchase intention, while H7b and H8 were not supported despite our theoretical argumentation. See Table 9 and Figure 3 below for an overview of the statistical findings.

Since the majority of the hypotheses were not supported, the in-depth interviews were conducted to aid in understanding the somewhat unforeseen findings to our theoretical
framework. As the qualitative result played a supporting role, it is integrated in the upcoming analysis to strengthen the discussion around the quantitative findings.

### Hypotheses

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Supported/Not supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Perceived ease of use positively affects omnichannel purchase intention.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H2: Perceived usefulness positively affects omnichannel purchase intention.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3: Perceived security positively affects omnichannel purchase intention.</td>
<td>Supported</td>
</tr>
<tr>
<td>H4: Perceived personalization positively affects omnichannel purchase intention.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5a: Personal innovativeness will positively moderate the effect between perceived ease of use and purchase intention.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5b: Personal innovativeness will positively moderate the effect between perceived usefulness and purchase intention.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5c: Personal innovativeness will positively moderate the effect between perceived security and purchase intention.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H6: Personal innovativeness will negatively moderate the effect between perceived personalization and purchase intention.</td>
<td>Supported</td>
</tr>
<tr>
<td>H7a: Habit will positively moderate the effect between perceived usefulness and purchase intention.</td>
<td>Supported</td>
</tr>
<tr>
<td>H7b: Habit will positively moderate the effect between perceived security and purchase intention.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H8: Habit will negatively moderate the effect between perceived ease of use and purchase intention.</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

**Table 9. Hypothesis overview**

![TAM - model diagram](image)

Note: *p<0.01; **p<0.001

**Figure 3. Resulting conceptual research model**
5. Analysis

This section will provide an analysis of the results from the quantitative and qualitative study by analyzing it through the theoretical framework discussed within the theoretical section. Initially, the analysis will attend to the overall findings, followed by a deeper reasoning around each antecedent of purchase intention.

5.1 Overall Analysis

Our study indicates that the evolution towards omnichannels across multiple industries, as suggested by scholars (e.g. Verhoef et al., 2015; Mirsch et al., 2016; Lazaris & Vrechopoulos, 2014) is fueled by consumer behavior and will continue to transform the retail landscape. Our results show that 1) security and usefulness impacts purchase intention within an omnichannel retail context 2) whereas security has the strongest impact on purchase intention. Furthermore, 3) no moderating effect on purchase intention was found for innovativeness and habit on most antecedents, except for habit moderating usefulness, and innovativeness moderating personalization to purchase intention.

In line with earlier studies, the TAM-model was extended with additional variables and applied in a different setting as suggested by Pantano (2014) and Venkatesh et al. (2012). Thus, the result shed interesting light on existing theory in an omnichannel retail setting. Despite the direct effects of the research model only explaining 36.1% of the variance in purchase intention, the results of the study indicate that the TAM-model and additional antecedents can be successfully applied, as both significant and non-significant results in research help further our understanding of a phenomenon. Our findings from the industry of home decor and furnishing, established usefulness and the added antecedent security as significant drivers, which indicate that it is necessary to continuously tailor the framework to further explain the complexity of consumer purchase intention in evolving contexts.

Since there was no direct effect between two of the investigated antecedents and purchase intention, the lack of moderating effect for innovativeness and habit in our findings may be a consequence. Nonetheless, as argued by Agarwal & Prasad (1998) a readily available knowledge of how easy to use and useful a system is may level the playing field for all levels
of innovativeness to adopt a certain technology. An omnishopper has already adopted certain technologies to even become a user of multiple channels. In line with suggestions by scholars (e.g. Chiu et al., 2012 and Juaneda-Ayensa et al., 2016) we included habit as a moderating variable. However, support for habit as moderating the relationship between antecedents and purchase intention was not found for most hypotheses, except between usefulness and purchase intention. These findings show that habit may not have as strong influence as previously thought within the context of omnichannels (Melero et al, 2016; Valentini et al., 2011) in general and home decor and furnishing in particular. Thus, the characteristics of omnishoppers (Yurova et al., 2017) may even out the need for either a certain innovativeness or habit to purchase in an omnichannel context, rendering these moderating effects less significant than expected.

5.1.1 Perceived Ease of use

Despite numerous previous studies showing that ease of use significantly impacts purchase intention (e.g. Venkatesh et al., 2012; Juaneda-Ayensa et al., 2016, Pantano & DiPietro, 2012), this relationship was found to not be significant in this particular omnichannel context. Respondents highlighted that purchasing home decor and furniture is something they invest extensive time and resources into. As stated by Respondent 2;

“I looked around for a long time, checking out different options, going to the store and so on… It is often quite a hassle, but this is an investment to me so I do not mind”

- Respondent 2

Therefore, the contrasting result may be due to the expectation of effort required to use the different channels during the purchase process. Ease of use refers to the degree of effort consumers believe it takes to use a certain system or channels (Davis, 1989). Thus, the perceived effort to use a system is influenced by other preceding factors within the context as well as the respondent’s personal characteristics. A majority of respondents suggested that understanding the different channels is important to their satisfaction, but implied that while all four had no complaints on the clarity or understanding of the retailers’ channels, it was not something they put much emphasize on during the purchase process. Rather it was considered a neutral experience. Another respondent compared purchasing home decor to purchasing
clothing online, where her expectations influenced her perceptions. She expected it to be much easier to buy clothes since she was used to buying clothes online, while she had not as strong expectations of home decor purchases.

“I have ordered clothes for some time now, compared to home decor, which I just recently discovered works pretty good (editor's note: ‘to buy’) online.”
- Respondent 1

This is in line with the results presented by Juaneda-Ayensa et al. (2016). Thus, the findings point to that within this specific context, omnichannels are still in its early stages and consumers are thus more forgiving towards a purchase process that requires more effort to complete.

However, Venkatesh & Davis (2000) suggest that ease of use often influence usefulness, which may provide an indication that these constructs are entwined. Thus, the lack of direct impact of ease of use on purchase intention may follow from this possible relationship impacting the model. Several respondents strengthened this analysis through comments on how the ease of use of the omnichannel environment led to efficiencies in the purchase process.

“It was easy to understand how to enter my credit card and decide on shipping so that made the whole process very quick and efficient.”
- Respondent 3

In addition, the results show that neither innovativeness nor habit significantly moderated the relationship between ease of use and purchase intention. Hence, the findings indicate that whether a consumer perceive a system to be free of effort, their intent to purchase within an omnichannel context will not be impacted by their level of innovativeness or their habit of using multiple channels. Juaneda-Ayensa et al. (2016) suggest that innovativeness include the consumer's profile or preferences to try new channels and experiences. The technologies as well as features available within omnichannel retailing are many, but not mandatory to use.

“I do not know how to blip the card in the store so I just do not do it since I can choose to pay with my credit card instead that is just as easy”
- Respondent 4
Hence, the omnichannel context does not require usage of new technologies and thus a propensity for trying new digital innovations is not required to be an omnishopper. This may explain why innovativeness does not play a part in whether it will strengthen or weaken purchase intention within this context. Furthermore, when revisiting the theoretical definition of habit as a learned sequence of acts where the response may be functional in reaching certain goals or outcomes (Verplanken et al., 1997), it can be argued that this view of habit as a learned outcome is in contrast to the aim of the omnichannel retail approach. Following behind firms such as Apple, retailers strive to create intuitive platforms and a seamless integration of channels that everyone can use, regardless of prior knowledge. Hence, providing an explanation as to why habit is not moderating the perception of how easy it is to use omnichannels.

5.1.2 Perceived Usefulness

In line with previous research (e.g. Davis, 1989, Venkatesh et al., 2003; Venkatesh et al., 2013; Pascual-Miguel et al., 2015; Juaneda-Ayensa et al., 2016), usefulness was found to have a significant effect on purchase intention. Hence, the performance and usefulness of omnichannels will increase consumer’s intent to purchase in an omnichannel retail context.

“Even though I like to spend time on interior design, it is hard to find time to actually go to the store. But I must say that it is much easier today when I can search for inspiration or products whenever I like and purchase products whenever I find something.”

- Respondent 3

In today’s fast-paced society, consumers strive to fulfill their needs while allocating their time in a valuable way. As stated by respondent 3, the process of purchasing home decor and furnishing products needs to fit the time and resources available in the everyday life of the consumer. Hence, the significant relationship between usefulness and purchase intention show that the flexibility of the omnichannel environment (Brynjolfsson et al., 2013; Piotrowicz & Cuthbertson, 2014; Peltola et al., 2015) appeal to the omnishoppers who are more task-oriented than regular consumers and continually seek strive to maximize convenience (Juaneda-Ayensa et al., 2016).
Furthermore, the results show that innovativeness does not significantly moderate the relationship between usefulness and purchase intention. Hence, the findings indicate that whether a consumer believes the usefulness of omnichannels to enhance performance, their intent to purchase will not be impacted by how innovative they are. Respondents highlight that they all feel that it improves and streamlines their purchase process of home decor and furnishing, in line with Wood & Neal (2009), while also commenting on how common the omnishopper behavior has become.

“I would say it's pretty commonplace to use several channels.”
- Respondent 3

While 75% of consumers today already use two or more channels (Melero et al., 2016), it can be argued that the omnishopper behavior has reached the great majority of consumers, explaining the limited weight ascribed to innovativeness in strengthening purchase intention.

Meanwhile, habit was shown to positively moderate the relationship between usefulness and purchase intention. Hence, the findings indicate that whether a consumer perceive the usefulness of omnichannels to enhance performance, their intent to purchase will be positively affected by their habit of using multiple channels during the purchase process. To illustrate; for a consumer who believes the omnishopper behavior to be useful, an increase in habit will increase their intent to purchase.

“I always Google and check what they have before going there, so when I get there I don’t need to spend unnecessary time at IKEA. Much simpler!”
- Respondent 1

Hence, in line with Wood & Neal (2009) and Verplanken et al. (1997), the habit of utilizing several channels simplifies the task at hand and enables a quicker purchase. The result from the interviews indicate that when the habit of being an omnishopper is established; no one could imagine going back to solely utilizing a single channel. Thus, if the usefulness is high, the consumers are likely to continue the behavior and create an even stronger habit.
5.1.3 Perceived Security

The result found *security* to be the strongest predictor of *purchase intention* within the omnichannel retail context of home decor and furnishing in Sweden. In accordance with Yenisey et al. (2005), consumers may hesitate to provide retailers with personal information in an online context, compared to a physical store (Kim et al., 2008). The findings of this research confirmed the result of several previous studies (e.g. Cha, 2011; Salisbury et al., 2001; Frasquet et al., 2015) – that a strong importance is placed on *security* during the purchase process. However, it contradicted previous findings within the omnichannel context, where e.g. Juaneda-Ayensa et al. (2016) found no significant effect of *security* on *purchase intention*. The differences in results may be traced back to the differences in researched industries as well as the level of digital development within the countries studied.

“I feel like all companies today use more or less the same payment systems online. But of course, when there is more money involved (editor's note: ‘high-end designed furniture or decor’) I might check one extra time before paying.”
- Respondent 1

Furthermore, respondent 2 stated that she trusts renowned companies to be secure while she would be more cautious if purchasing home decor and furnishing from an international and/or less established brand for the first time. This indicates that *security* increases when consumers have developed a relationship to the retailer and thus, feel that a structure to help maintain privacy exist (Xu & Gupta, 2009) consequently leading to a higher propensity to purchase again.

Meanwhile, the omnichannel context is argued to require a larger amount of consumer information than a traditional retail context, since consumer information is needed to enable an integrated sales experience throughout channels (Rigby, 2011). The consumer information will need to be shared between channels, which could increase the risk of information leakage or misuse of personal data. Consequently, these arguments can aid the explanation of why *security* is the strongest predictor of *purchase intention* within this specific context.

In addition, the results show that neither *innovativeness* nor *habit* significantly moderated the relationship between *security* and *purchase intention*. Hence, the findings indicate that
whether consumers perceive a system to be secure, their intent to purchase within the omnichannel context will not be impacted by how innovative they are or their habit of using multiple channels. However, even though the interaction term was not significant, it is interesting to note that the variable habit had a negative coefficient. Indicating that, if significant, it is likely to weaken the relationship between security and purchase intention, in contrast to our stated hypotheses.

As argued by Herrero & Rodriguez del Bosque (2008) and Rogers (2010), innovativeness is connected to individuals’ willingness to cope with uncertainty as well as taking on more risk. However, the results of this study indicate that innovativeness is not a prevalent aspect within an omnichannel context. Hence, it indicates that whether the consumer perceive the process to be secure, their intent to purchase will not be impacted regardless of their level of innovativeness.

Furthermore, regardless of previous habitual omnishopper behavior, one respondent indicated that a sense of security needed to be established before every purchase. As respondent 2 stated:

“I always double check their policy before proceeding to check out, regardless if I use my phone or order through their website. You never know when they change something!”

- Respondent 2

This indicates that the habit of being an omnishopper does not translate into a constant sense of security. In the ever-changing omnichannel environment, omnishoppers display their information-seeking behavior (Yurova et al., 2017) by constantly being up to date.

5.1.4 Perceived Personalization

Personalization was shown to not have a significant effect on purchase intention. In accordance with Kang et al. (2016), personalization is enabled through technology and retailers should integrate a personalized approach both online and offline (Bălășescu, 2013). While Purcarea (2016) indicate that consumers now expect a personalized shopping
experience, the result of this study indicate that it is still not a requirement among consumers but rather a value-adding feature. As stated by respondent 2 and 1:

“I do like getting those personalized emails but it’s more for inspiration than anything else.”
- Respondent 2

“I love it when Netflix or Spotify makes me recommendations because they’re not asking me to buy anything”.
- Respondent 1

In line with Pappas et al. (2014), the findings indicate that personalization is connected to positive emotions, but is not a significant predictor of purchase intention. Hence, today personalization could be seen as an attractive feature but not as a driver of sales.

Kramer (2007) emphasize that the positive effects of personalization only occur when the consumer has acknowledged that the message match their preferences. As stated by Noar et al. (2009), a personalized message will have a stronger impact than a non-personalized message. However, consumers may not be attentive towards these messages and thus, no personalization is experienced or positive effects gained that could lead to purchase intention. These findings combined with the theoretical background suggest that personalization within an omnichannel context is still in its early stages and have not yet utilized its full potential as a driver of purchase intent.

Meanwhile, innovativeness was significantly shown to negatively moderate the relationship between personalization and purchase intention. Hence, the findings indicate that whether consumers perceive the retailer’s communication as personalized, their intent to purchase will decrease with an increasing level of innovativeness. As such, the more innovative a consumer is, the less will personalized messages affect their intent to purchase. This negative relationship strengthens Rogers (2010) argument that innovative consumers form more objective evaluations of the technology behind personalized messages. As stated by respondent 3:
“I’m skeptical to why they act like it’s my weekly personal offer when I haven’t been to their website for several months. How would they know?”

- Respondent 3

As such, their perception of the phenomenon might be negative, as it is perceived more as advertising instead of personalized recommendations.

6. Theoretical contribution & Managerial implications

This study makes both important theoretical as well as managerial implications within the field of omnichannel, which is identified as a top priority globally (Verhoef et al., 2015). While the model emanated from theories originally constructed for an organizational context, the main contribution of this study is the modification of the research model and an increased understanding of the emerging omnichannel context. This contribution is of high relevance for both academia and practice. It complements today's omnichannel research by increasing knowledge of the context from a consumer perspective, in contrast to the majority of today's research that has been conducted from a firm perspective (Verhoef et al., 2015).

It further contributes with an understanding of how technology acceptance and use impact consumers’ intention to buy within an omnichannel context. While this study investigates the home decor and furnishing industry, the results lead us to believe that the revealed omnishopper behavior is applicable for other industries. The in-depth interviews attest to an emerging behavior that, while once engaged in, consumers continue to perform – regardless of product or industry. Hence, from a managerial perspective, the findings could act as a relevant indication of evolving drivers in markets and industries where omnichannel is still in its cradle.

The TAM-model was tailored to the specific context and the result confirmed the need for further extensions, as both original and extended antecedents were found significant. In several studies, usefulness has been shown to carry the strongest weight in predicting behavioral intention within technology acceptance in an organizational context (Venkatesh et al., 2003; Venkatesh et al. 2013). However, within the Swedish omnichannel retail context, security was shown to have the strongest effect on purchase intention. Hence, this study
makes a theoretical contribution by establishing security as the strongest predictor, followed by usefulness. It also emphasized the need for academia to further study security as an important antecedent to purchase intention. Furthermore, the result provides important managerial implications on security, as it is still a vital factor for managers to take into account when designing an omnichannel context. Managers should thus focus on creating a purchase process that integrates a sense of security across the whole purchase process in order to drive sales.

Despite this study not revealing a significant effect of personalization on purchase intention, personalized experiences are at the core of omnichannel strategies (Brynjolfson et al., 2013; Piotrowicz & Cuthbertson, 2014; Peltola et al., 2015) and the omnishoppers’ expectations can only be assumed to grow stronger as retailers develop their integration capabilities. Therefore, managers should strive to further understand the behavior of their consumers and put effort into meeting the demands of individuals instead of consumer segments at large. With for example Spotify and Netflix driving the request for personalized recommendations, one can invoke what is known as expectation transfer. New innovations and improved experiences within one industry will consequently change the expectation of consumers overall, and spread across industries. Hence, the seamless experience with highly personalized features is evolving in some industries and can be expected to rapidly spread and change consumer demands in other.

Furthermore, this study has contributed with interesting theoretical contributions regarding the moderating effect of personal characteristics. While earlier studies have investigated the personal characteristics of innovativeness and habit in various contexts, their moderating effect was not yet studied within an omnichannel context. However, despite limited moderating effects being found, these results make an academic contribution through an increased theoretical understanding of which personal characteristics play a moderating role in predicting purchase intention within a technology acceptance framework and provide an interesting foundation for future research.
7. Limitations & Suggestions for future research

As always there are some limitations emanating from the chosen research structure and method. First, memories retrieved from respondents consist of a combination of the actual experience, what they have inferred and what was learned after the experience. Thus, it may be difficult for respondents to distinguish between whether their opinion of an experience was acquired through the direct experience or together with other aspects (Memory, 1999). Also, consumers’ satisfaction with the product itself may influence their perspective on the experience, despite explicit instructions that this aspect was not to be considered when answering the questionnaire. Furthermore, a complete homogeneity of the omnichannel setting was difficult to achieve since three different retailers were used to provide the study’s context. Even though measures were taken to ensure the contexts were similar to allow generalizability, the findings may be skewed dependent on which retailer was most commonly used as the basis of the survey. Hence, future research could limit their study to one retailer context or utilize a fictitious omnichannel scenario to control against these limitations.

This study chose to keep ease of use and usefulness as parallel antecedents to purchase intention, under which ease of use was not significant in driving purchase intention. Future research could instead investigate whether ease of use should be positioned as an antecedent to usefulness in this omnichannel context, as suggested in the original TAM-model (Davis, 1989). In addition, the overall research model solely explained 36% of the dependent variable purchase intention. This indicates room for future research to continue to develop and establish a conceptual research model for the omnichannel context.

Despite our efforts to ensure that respondents had experienced a personalized omnichannel context, the mean of this variable was shown to be the lowest compared to other variables (See Table 2). Therefore, the perceived personalization with these three retailers was evidently not as visible to consumers as believed. This indicates a limitation in the chosen research design, which may have impacted the result. Thus, an interesting suggestion for future research would be to further investigate the causal relationship between personalization and purchase intention within an even more personalized retail context to examine whether this emerging construct may have an effect then.
Overall, it was difficult to find support for the hypotheses pertaining to the moderating effects. The study’s limited sample size as well as its coarse respondent scale may have contributed to a majority of these hypotheses not being supported, as argued by Kang & Waller (2005). They further suggest that if moderating effects are not found, several additional statistical tests could be performed to check for these issues and then possibly find moderating effects. Future research could therefore test moderating effects of the same variables on; (1) a much larger sample size, (2) with a more refined measurement scale and/or (3) with additional statistical tests.

Finally, the main effect of usefulness and security were found to have a significant effect on purchase intention. Therefore, a suggestion for future research is to further investigate these two constructs from a consumer perspective with an aim of finding concrete omnichannel initiatives corresponding to each of them that retailers can implement.

8. Conclusion

To conclude, the purpose of this study was to examine the omnichannel context while identifying antecedents that influence consumer behavior and drive purchase intent. The TAM-model was extended to fit the research context, creating a tailored conceptual research model that was tested on the home decor and furnishing industry in Sweden. Our ambition was to contribute with an increased understanding of the omnichannel phenomena from a consumer perspective.

The findings established perceived security as the strongest predictor of purchase intention, followed by perceived usefulness. Meanwhile, perceived ease of use and perceived personalization was not found significant in this study. Moreover, the moderating effects of the personal characteristics; innovativeness and habit were tested for all antecedents. However, moderating effects were solely found for innovativeness negatively moderating the relationship between perceived personalization and purchase intention and, habit positively moderating the relationship between perceived usefulness and purchase intention.

While remodeling the established TAM-model, the findings have decorated future avenues of research in the area and shed interesting light on the consumer perspective of the emerging phenomena of omnichannel.
References


Harris, L. (2013). The Mobile Revolution, Texas banking 11/01/2013, 102(11), 8


Melero, I., Sese, F., and Verhoef, P. C. (2016). Recasting the customer experience in today’s omni-channel environment. *University Business Review. 18–37*


## Appendix

### Appendix 1. Measurement and Operationalization of theory

<table>
<thead>
<tr>
<th>ANTECEDENTS</th>
<th>QUESTIONS</th>
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<tr>
<td><strong>Perceived Ease Of Use</strong></td>
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<tr>
<td>(Venkatesh Et Al., 2003; Venkatesh Et Al., 2012; Juaneda-Ayensa Et Al., 2016)</td>
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<tr>
<td>PEUK1. I find the different online channels** easy to use.</td>
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<tr>
<td>PEUK2. Learning how to use the different online channels** is easy for me.</td>
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<tr>
<td>PEUK3. My interaction with the different online channels** is clear and understandable</td>
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<tr>
<td><strong>Perceived usefulness</strong></td>
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<td>(Venkatesh Et Al., 2003; Venkatesh Et Al., 2012; Juaneda-Ayensa Et Al., 2016)</td>
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<td>PUK1. Being able to use multiple channels throughout the purchase process allows me to purchase quickly.</td>
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<td>PUK2. Being able to use multiple channels throughout the purchase process is useful to me</td>
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<tr>
<td>PUK3. Being able to use multiple channels throughout the purchase process makes my life easier</td>
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<td><strong>Perceived security</strong></td>
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<td>(Cha, 2011; Juaneda-Ayensa Et Al., 2016)</td>
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<td>PRK1. Making payments online is safe</td>
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<td>PRK2. Giving my personal data during the purchase process seems safe</td>
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<td>PRK3. I feel safe that information I submit online will not be misused</td>
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<td><strong>Perceived personalization</strong></td>
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<td>(Pappas Et Al., 2014)</td>
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<td>PPK1. I feel that the company send me personalized offerings of products I strongly consider</td>
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<td>PPK2. I feel that the company make me purchase recommendations that I might like</td>
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<td>PPK3. I feel that the company is able to tailor parts of their website based on my previous interactions with them</td>
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<tr>
<th>MODERATING VARIABLES</th>
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<tr>
<td><strong>Personal innovativeness</strong></td>
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<tr>
<td>(Goldsmith &amp; Hofacker, 1991; Lu Et Al., 2005; Juaneda-Ayensa Et Al., 2016)</td>
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<tr>
<td>INK1. When I hear about a new technology, I search for a way to try it</td>
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<tr>
<td>INK2. Among my friends or family, I am usually the first to try new technologies</td>
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<tr>
<td>INK3. Before testing a new product or brand, I seek the opinion of people who have already tried it</td>
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<td>INK4. I like to experiment and try new technologies</td>
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<tr>
<td><strong>Habit</strong></td>
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<td>(Limayem &amp; Hirt, 2003; Venkatesh Et Al., 2012; Juaneda-Ayensa Et Al., 2016)</td>
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<td>HBK1. The use of different channels (physical store, website, mobile app) throughout the purchase process has become a habit for me.</td>
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<tr>
<td>HBK2. I frequently use different channels throughout the purchase process</td>
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<td>HBK3. I must use different channels throughout the purchase process when shopping</td>
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<tr>
<th>BEHAVIORAL INTENTION</th>
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<td><strong>Purchase Intention</strong></td>
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<tr>
<td>(Pantano &amp; Viassone, 2015; Juaneda-Ayensa Et Al., 2016)</td>
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<tr>
<td>PIK1. I would purchase in this kind of store</td>
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<tr>
<td>PIK2. I would tell my friends to purchase in this kind of store</td>
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<tr>
<td>PIK3. I would like to repeat my experience in this kind of store</td>
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*Channels: physical store, website on computer, website on mobile device and/or tablet, social media, mobile app, email, telephone, catalogue, chat, in-store kiosks etc.  **Channels: physical store, website on computer, website on mobile device and/or tablet, social media, mobile app, email, telephone, catalogue, chat, in-store kiosks etc.*
Appendix 2. Questionnaire in English and Swedish

1. Have you purchased decoration and/or furniture from one or more of these three companies during the last 6 months? (Click on the option/options suitable for you)
   Har du, under de senaste 6 månaderna, köpt inredning och/eller möbler från en eller flera av de nedan presenterade företagen? Klicka i det eller de alternativ som passar dig.
   a. Ikea
   b. Mio
   c. Åhlens
   d. No, I have not purchased anything from this product category during this time period. Nej, jag har inte köpt inredning eller möbler från något av dessa företag under de senaste 6 månaderna.

2. With the most recent purchase occasion from Ikea, Mio or Åhlens in mind, how many channels* did you use when interacting with the company? Both prior to, during and after the actual purchase occasion. *Channels: physical store, website on computer, website on mobile device and/or tablet, social media, mobile app, email, telephone, catalogue, chat, in-store kiosks etc.
   Tänk på ditt senaste köp hos IKEA, Mio eller Åhlens. Hur många kanaler* använde du under din köpprocess**?
   *Kanaler: fysisk butik, hemsida via dator, hemsida via mobil eller läsplatta, sociala medier, mobilapp, nyhetsbrev, katalog, post, kundtjänst via telefon och/eller email, chat m.fl.
   ** Köpprocess: innan, under och efter ditt köp
   a. 1
   b. 2
   c. 3
   d. 4<

Please have the most recent purchase occasion in mind from when you purchased home decor or furniture using two or more channels from IKEA, Mio or Åhlens.
   Tänk på det senaste köpet av inredning och/eller möbler från Mio, Åhlens eller IKEA då du använde minst 2 kanaler* när du svarar på resterande frågor.

3. I find the different online platforms (website and mobile app) easy to use.
   Jag tycker att deras olika kanaler online är enkla att använda.

4. Learning how to use the different online platforms (website and mobile app) is easy for me.
   Att lära sig använda deras olika kanaler online är lätt för mig.

5. My interaction with the different online channels is clear and understandable.
   Det är tydligt och lättförståeligt hur jag ska använda deras olika kanaler online.

6. Being able to use multiple channels throughout the purchase process allows me to purchase quickly.
   Att kunna använda flera kanaler under min köpprocess möjliggör snabba köp.

7. Being able to use multiple channels throughout the purchase process is useful to me.
   Att kunna använda flera kanaler under min köpprocess är användbart för mig.

8. Being able to use multiple channels throughout the purchase process makes my life easier.
   Att kunna använda flera kanaler under min köpprocess gör mitt liv enklare.

9. Making payments online is safe.
   Att betala online är säkert.

10. Giving my personal data during the purchase process seems safe.
    Att dela min personliga information under köpprocessen uppfattas som säkert.
11. I feel safe that information I submit online will not be misused
   Jag känner mig säker på att information jag medvetet delar online inte missbrukas.

12. I feel that the company send me personalized offerings of products I strongly consider
   Jag upplever att företaget skickar personliga erbjudanden med produkter som jag starkt överväger att köpa.

13. I feel that the company make me purchase recommendations that I might like
   Jag upplever att företaget ger mig rekommendationer på produkter som jag kan tänkas gilla.

14. I feel that the company is able to tailor parts of their online channels and/or communication based on my previous interactions with them
   Jag upplever att företaget kan anpassa delar av deras kanaler online och/eller kommunikation baserat på min tidigare interaktion med dem.

15. When I hear about a new technology, I search for a way to try it
   När jag hör talas om en ny teknik försöker jag hitta ett sätt att testa den.

16. Among my friends or family, I am usually the first to try new technologies
   Bland mina vänner och familj är jag vanligtvis den första att testa en ny teknik.

17. Before testing a new product or brand, I seek the opinion of people who have already tried it
   Innan jag testar en ny produkt/varumärke letar jag efter åsikten hos folk som redan har provat den.

18. I like to experiment and try new technologies
   Jag gillar att testa och experimentera med ny teknik.

19. The use of different channels (physical store, website, mobile app) throughout the purchase process has become a habit for me.
   Användning av olika kanaler under köpprocessen har blivit en vana för mig.

20. I frequently use different channels (physical store, website, mobile app) throughout the purchase process
   Jag använder ofta olika kanaler under köpprocessen.

21. I must use different channels (physical store, website, mobile app) throughout the purchase process when shopping
   Jag måste använda olika kanaler under köpprocessen.

22. I would purchase in this kind of store
   Jag skulle köpa från denna typ av butik (online/offline) (Mio, Åhlens, IKEA)

23. I would tell my friends to purchase in this kind of store
   Jag skulle rekommendera mina vänner att köpa från denna typ av butik (online/offline) (Mio, Åhlens, IKEA)

24. I would like to repeat my experience in this kind of store
   Jag skulle vilja upprepa min upplevelse i denna typ av butik (online/offline) (Mio, Åhlens, IKEA)

25. Age:
   Ålder:
   a. Enter age:

26. What gender do you identify with?
   Kän:
   a. Kvinna
   b. Man
   c. Föredrar att inte svara

27. Occupation:
   Sysselsättning:
   a. Student
      Student
   b. Employee
      Anställd
c. Retired  
   Pensionär  
d. Self-employed  
   Egenföretagare  
e. Unemployed  
   Arbetslösg.

28. How often do you purchase home decor and/or furniture?  
   Hur ofta köper du inredning och/eller möbler?  
   a. Several times a month  
      Flera gånger i månaden  
   b. Once a month  
      En gång i månaden  
   c. Once every 6 month  
      En gång per halvår  
   d. Once a year  
      En gång per år  
   e. Less often  
      Mer sällan
Appendix 3. Interview Guide

Introduction
- This interview will take around 30 min
- Your answers will be treated anonymously in the thesis.
- We want to have an open dialogue regarding your purchase process. There are no right or wrong answers and we would like you to tell us about your own opinions, experiences and thoughts.
- If there is any question you do not feel comfortable answering, just tell us and we will skip that question.
- We would like to audio-record the interview to be able to make sure that we do not miss anything of importance. We will take notes during the interview but this would make it possible for us to go through your answers after the interviews. Do we have your permission to record?
- Stimuli material will be used where we will try to visually illustrate your purchase process together during the interview.

Purchase process: step-by-step

Prior to purchase (Probe: pain and pleasure points)
- Background: What product was it and from which retailer did you purchase it?
- How did the purchase process start? What inspired it? (Probe: ease of use, usefulness, personalization)
- You have stated that you used $X$ channels during your purchase process. What channels did you use? Why did you choose them? (Probe: ease of use, usefulness, innovativeness, habit)

During purchase (Probe: pain and pleasure points)
- Could you map when in time you used different channels? How did you go about it?
- Please elaborate around the actual purchase situation. (Probe: ease of use, usefulness, Perceived security)
  - Did you reflect upon giving away your personal information?

Past purchase (Probe: pain and pleasure points)
- How have you experienced the relationship to the retailer past purchase? (Probe: perceived security, personalization, habit)

Overall reflection
- Could you tell us a bit about your relationship to technology in general and new technologies? Do you believe your attitude toward technologies have made you more or less prone of using multiple channels? (Probe: Innovativeness, Purchase intention)
- Do you believe your prior experience with the omnichannel initiatives to impact the process? Is this specific purchase occasion similar to other? (Probe: Habit, Purchase intention)
### Purchase Process: Step-by-step

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## Appendix 4. Supporting Statistical Analysis

Model summary – moderating variables: Innovativeness

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Model summary – moderating variables: Habit

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