



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

Master Degree Project in Marketing and Consumption

Paint´n Roll Omnichannels

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Abstract: Parallel to the digitization of Western societies retailers have been offering customers more and more meeting points and places for transactions. Today you can not only shop in physical stores or online, but through both channels simultaneously. From this development, the concept of omnichannel retailing has manifested, which is where a seamless movement across channels and touchpoints is enabled. Prior research on omnichannels have for instance aimed at; conceptualizing the phenomena, studying the effect of different kinds of channel integration, and measuring threats and benefits attributable to the use of multiple channels. Some have also measured the difference between multichannel and omnichannel, but most of them lack a holistic approach to omnichannel shopping experiences, where several channels and services are linked together. Therefore, the quantitative experimental research design applied in this study instead intends to test the causal relationship between different levels of channel integration and type of channel content, and customer satisfaction, purchase intention and brand attitude, in a full-length shopping experience. The Millennial generation is the focus of this study, as they are the first digital natives, that is, the first to be raised in a digital world. The direct and moderating effect of the Millennial generation's increasing digital competence and e-commerce experience was thus also taken into account and measured. The findings reveal that the level of channel integration does not significantly impact the level of customer satisfaction, purchase intention and brand attitude. When taking the consumer variable into consideration, it was found that the higher level of digital competence and e-commerce experience a customer has, the higher the level of customer satisfaction, purchase intention and brand attitude is. Finally, there was a significant interaction effect between digital competence and e-commerce experience and channel integration measured, on level of purchase intention. The findings of this paper hint that even though customers are positive to integration of channels and touchpoints, the level of integration does not seem to play a key role. Consequently, a multichannel solution may suffice for now, therefore companies do not need to rush an omnichannel solution.

Keywords: omnichannels, multichannels, channel integration, channel content, customer satisfaction, purchase intention, brand attitude, digital competence, e-commerce experience, Millennials

INTRODUCTION

Information and communication technologies have in many ways reshaped people's everyday life as well as the way companies do business (Jonsson, Stoopendahl & Sundström, 2015). Advances within retailing attributable to IT development include e-commerce, transformation of physical products into digital services (Hagberg, Sundström & Egels-Zandén, 2014), mobile channels (Verhoef, Kannan & Inmanca, 2015), supply chain redesign, and in-store technologies, such as virtual screens, and QR codes (Piotrowicz & Cuthbertson, 2014). The continuous proliferation of digital innovativeness means a steadily increasing array of multiple retail channels for businesses, which allows for new consumer touchpoints and platforms (Blázquez, 2014). As such, consumers are nowadays able to start their shopping experiences whenever they like and wherever they are, thanks to the usage of handheld digital devices (Jonsson, Stoopendahl & Sundström, 2015). Consequently, consumer shopping experiences are enabled to interchangeably move between online and physical channels (*ibid.*), in accordance with different customer preferences (Sorescu *et al.*, 2011).

As customers are embracing the world of e-commerce they leave behind digital footprints, which are made available for companies to trace and analyze, with the help of various analytical tools (Jonsson, Stoopendahl & Sundström, 2014). This allows companies to gain knowledge of their particular customers in order to optimize product- and service offerings, as well as their business-to-consumer communication. This is vital, not only as the endless array of possible shopping routes have escalated, but also since consumers' expectations have increased making them more demanding of integrated experiences, where products are presented in a similar style in all channels (*ibid.*; Blázquez, 2014). This, in turn, poses an integration dilemma, where companies are forced to apply new business models, which consider how businesses can make all roads lead to Rome, that is, to make all channels and touchpoints lead to a purchase (Verhoef, Kannan & Inman, 2015; Blázquez, 2014). Arguably, a challenge for retailers emerges, as they need to determine the amount, length and consistency of the different purchasing journeys required, in order to steer the consumers to a purchase. In other words, the required *level of channel integration*, referred to as the degree to which different channels are combined to create a seamless transition between customer touchpoints and retail channels (Gulati & Garino, 2000; Bendoly *et al.*, 2005), needs to be decided. Indeed, aligning the products, brand, and marketing messages in a retailer's channel mix becomes important (Cao, 2014), a strategy, which is referred to as omnichannel retailing (Rigby, 2011). More specifically, *omnichannel retailing* is a business model where a seamless movement across countless channels and touchpoints is enabled in order to optimize performance and improve the customer experience (Verhoef, Kannan & Inmanca, 2015; Brynjolfsson, Yu & Rahman, 2013).

Several special issues on omnichannel (see for example Verhoef, Kannan & Inman, 2015; Lazaris & Vrechopoulos, 2014; Piotrowicz & Cuthbertson, 2014) underscore that omnichannel retailing is seen as a successor to *multi-channel retailing*, which is "the set of activities involved in selling merchandise or services to consumers through more than one channel" (Zhang, *et al.* 2010, p. 168). A natural explanation of the omnichannel concept has therefore been to set the two strategies in relation to each other (Bhalla, 2014). With the exception of purely conceptualizing studies most omnichannel researchers focus on the type and level of integration between channels. What has been found is that despite its growing importance, retailers are faced with a series of challenges, such as lack of integration in promotion, brand building and experience, when trying to integrate its online and offline channels (Piotrowicz & Cuthbertson, 2014; Rosenblum & Kilcourse, 2013). Other examples include product assortment integration (Emrich, Paul & Rudolph,

2015), integration in terms of pricing (Kireyev *et al.*, 2014) and service integration (Sousa & Voss, 2006). Omnichannels have also been studied from a branding perspective. One example is Baxendale, Macdonald and Wilson (2015) who investigate the impact of multiple customer touchpoints and how these affect retail and brand performance. Another stream of research examines threats and benefits with multiple retail channels. Cao (2014) investigates whether the retailer should aim for synergies or for channel specific advantages and found that online shoppers prefer cohesion between the online-store and the physical store or they may switch to a competitor. In a similar vein, Herhausen, *et al.* (2015) found that online and offline integration does not generate cannibalization, but instead leads to a competitive advantage and synergies among channels.

It is apparent that implementing omnichannel solutions pose a challenge for retailers, but several researchers have found that it may bring more positive outcomes as well. Studies have for instance established that omnichannel consumers spend more (Deloitte, 2014), making them more profitable than single channel shoppers (Rosenblum & Kilcourse, 2013). As argued by Herhausen *et al.* (2015) it is of interest to examine what added value omnichannels generate for consumers, and how this varies between different consumers. Indeed, understanding how to deliver a strong value proposition with cross-channel integration is fundamental in order to achieve firm sales growth (Cao & Li, 2015), and may also give further explanation to customers preferred mode of shopping in the current marketplace. In support, Lazaris and Vrechopoulos (2014) stress that going forward research should undertake an even more customer-centric approach, gaining further insights into consumer behavioral patterns. However, as a result of digitization, no consumer purchase process equals another (Jonsson, Stoopendahl & Sundström, 2015) thereby forcing companies to move from a generalized view of their target group to a more personalized approach. Yet, it is in a company's interest to facilitate that the customer is led from touchpoints to transaction, where products or services are exchanged for monetary funds. In order to maintain customers' interest companies should therefore aim at constructing shopping experiences, which match customers' preferences in terms of level of channel integration, as well as the product information and marketing communication presented in the channels. Indeed, Verhoef, Kannan and Inmanca (2015) stress the advantage of further research within the field of omnichannel retailing, where the level of integration and harmonization among channels and touchpoints are considered. The aforementioned discourse culminates into the main dimension of this study, *level of channel integration*.

In addition, Savastano, Barnabei and Ricotta (2016) suggest measuring customers' value perceptions of either a hedonic, which is emotionally based, or utilitarian omnichannel orientation, which is of a more rational nature. Indeed, Emrich and Verhoef (2015) point out that in order to understand the interplay between design and cognitive processing more research is required, and Mazaheru, Richard and Laroche (2012) also underscore the value of a future investigation into the role information type plays on consumers' attitudes. Hence, a second dimension of the study will be *channel content*, which refers to the information and communication presented to consumers and the nature of the consumer information shared between channels.

In terms of added value and differentiation between consumers, Binder and Springer (2014) stress that the origin and nature of different effects of online integration should be investigated by focusing on the role of contextual factors and by including additional moderators. Park, Rha, and Widdows (2011) further mention that digitization of the marketplace is posing requirements for consumer competencies in order for them to efficiently operate within the new digitalized marketplace. From a retailer's perspective, uncertainty pertaining to consumers' reactions to new technologies has bypassed the risk

of monetary investment attributable to digitization of the marketplace (Pantano, 2014). On the basis of this, and following Binder and Springer's (2014) idea for future research, digital competence and e-commerce experience (DCEE) is chosen as a moderating variable for this study. The Y generation, also referred to as Millennials or digital natives, is believed to be digital savvy and the first generation to grow up with the Internet, cell phones and cable TV (Nielsen, 2014; Prensky, 2001). Arguably they show attitudes, which resemble those of the future shopping generations, thus making them particularly interesting to study.

With the above conceptualization in mind, this study aims to examine the following research questions:

How do the level of channel integration and the type of channel content impact customer satisfaction, purchase intention and attitude towards the brand?

Are the effects moderated by customers' level of digital competence and e-commerce experience?

The research questions will be examined using a quantitative experimental research design, testing the causal relationships between omnichannel designs and consumer behavioral patterns and evaluations, as suggested by several researchers (Savastano, Barnabei & Ricotta, 2016; Verhoef, Kannan & Inmanca, 2015; Lazaris *et al.*, 2015).

LITERATURE REVIEW

Channel Integration

Neslin *et al.* (2006) underscore that the proliferation of customer-retailer interaction channels is a dramatic trend within the shopping environment. Furthermore, Blázquez (2014, p. 111) renders that "the key is to think in all channels holistically as consumers do; thus, the holistic experience begins before a customer enters the store and continues after the customer leaves". Consequently, the implementation of an omnichannel strategy is being sought (Lazaris & Vrechopoulos, 2014).

According to Neslin *et al.* (2006) a customer contact point, where interaction takes place, constitutes a *channel*. In other words, within a *retail channel*, for instance, a physical store, website, direct marketing (catalog), mobile channels, and/ or social media, a transaction takes place (Verhoef, Kannan & Inman, 2015; Piotrowicz & Cuthbertson, 2014). Apart from retail channels, omnichannels consist of customer touchpoints (Verhoef, Kannan & Inman, 2015). *Touchpoints* are those moments when consumers directly, or indirectly are in contact with or influenced by a brand or firm on the way to a purchase (Jonsson, Stoopendahl & Sundström, 2015; Verhoef, Kannan & Inman, 2015; Court *et al.* 2009). More specifically, they are explained as short one-way or two-way interactions for example retailer advertisements, brand advertisements, word-of-mouth, and earned traditional media, for instance editorials, which are either extensive or superficial (Baxendale, Macdonald & Wilson, 2015; Verhoef, Kannan & Inman, 2015). The interactions may be between customers and firms or customer-to-customer (Verhoef, Kannan & Inman, 2015). Metaphorically, touchpoints have previously been explained in

terms of a funnel where marketers systematically attempt to reduce consumers' initial set of potential brand choices steering them towards a single brand to purchase (Court *et al.*, 2009). For the marketers of today, this process is not as simple. Not only have the amount of touchpoints met a tremendous increase with the introduction of new digital channels, consumers are also becoming better informed (Jonsson, Stoopendahl & Sundström, 2015; Court *et al.*, 2009). Moreover, digitization has enabled a global spread of customer-to-customer communication, for example on social media platforms (Verhoef, Kannan & Inman, 2015). As a result, marketers' relative control over a brand's message has decreased and consequently consumers are now steering themselves through the funnel, consciously deciding what brands to "touch".

A fundamental aspect of channel integration in general and omnichannel in particular, is cross-channel services. These for instance pertain to; "click and collect", "order in-store deliver home, and "order online, return to store" (Piotrowicz & Cuthbertson, 2014, p. 6). Showrooming is also an example, which implies the act of searching in a physical store and purchasing online, as well as webrooming, which concerns searching online and buying offline, thus the opposite of showrooming (Verhoef, Kannan & Inman, 2015).

Level of Channel Integration and Customer Satisfaction

Customer satisfaction (CS) is explained by Söderlund (2001) as a human attitude, which correlates with an overall judgment of the concoction of offers the customer is confronted with throughout the purchase process. It is a multidimensional concept, and may thus be measured in a multitude of ways. The author further claims that satisfaction is a consequence of whether or not the product/service exceeds expectations derived from prior exposure to a product or service, expert opinions, word of mouth and advertisements (Söderlund, 2001; Zeithaml, Berry & Parasuraman, 1993). However, most importantly, is making sure that basic demands are met (Söderlund, 2001). Research within satisfaction has focused on transaction-specific satisfaction and cumulative satisfaction (Johnson, Anderson, & Fornell, 1995). A transaction-specific satisfaction revolves around a particular transaction and its affect on consumer satisfaction. A cumulative satisfaction on the other hand, is the sum total of a customer's experience with a product or service (*ibid.*). Johnson *et al.* (2001) argue that since customers' repurchases and decisions are made on the basis of all previous experiences and not only a specific transaction, a cumulative satisfaction construct is a better predictor of consumer behaviors. In order to satisfy customers the perceived performance needs to, at a minimum, go hand in hand with previous expectations (*ibid.*).

Sousa and Voss (2006) mention that there are two dimensions to consider in relation to integration quality. The first, channel service configuration, relates to the freedom of choice of type of channel and awareness of the different configurations available. The second dimension pertains to integrated interactions, or in other words, that the customer perceives that there is a logical harmony between different channels (*ibid.*). For instance, there exists a consistency in the response to a question asked in different channels, or past interactions in other channels are taken into account in the present channel used (Cassab & MacLachlan, 2009).

The presumption that multiple channel strategies generate more satisfied and loyal multiple channel customers is underscored by Wallace, Giese, and Johnson (2004), as well as Kumar and Venekatesan (2005). However, it has been recognized that greater coordination between company touchpoints and technologies generate more satisfied customers who purchase and spend more (Savastano, Barnabei & Ricotta, 2016; Sousa and Voss, 2006). Seck and Philippe (2013) also highlight that customer's perception of service

value may increase as a reaction to channel integration. In addition, Bendoly et al. (2005), as well as Montoya-Weiss, Voss, and Grewal (2003) mention that greater loyalty is derived where the customers' perceive a higher level of integration between online channels and the store. Consequently, the integration of multi/cross channels or in other words, an omnichannel solution, is deemed to result in even more CS and loyalty, than a multi channel strategy.

From the above theory, the following hypothesis is thus derived:

H1a: There will be a difference in **customer satisfaction** attributable to the level of channel integration.

Level of Channel Integration and Purchase Intention

To acquire a sale, is according to several researchers the ultimate business goal (Drucker, 1954; Percy & Elliot, 2009) thus highlighting the interest in measuring purchase intention. Eagly and Chaiken (1993, p. 168) explain intentions as "the person's motivation in the sense of his or her conscious plan to exert effort to carry out a behavior" and Bagozzi *et al.* (1979), stress that in a purchase situation, the intention is related to a certain brand. Thereby, *purchase intentions (PI)* can be defined as "an individual's conscious plan to make an effort to purchase a brand" (Spears & Singh, 2004, p. 56).

Schramm-Klein *et al.* (2011) underscore that the perceived integration of individual channels is an important influencing factor on customer behavior such as, customer loyalty moderated by positive effects on retail image and customer trust. Similarly, Kwon and Lennon (2009) found that consumer's loyalty to a retailer is affected by both offline and online brand images. Consequently, the multi-channel retailer should aim at attaining a consistent image in the different channels and a seamless integration, since this will positively affect consumers' evaluations of the brand and the retailer's perceived brand image (*ibid.*). Conceivably, this leads to a rise in PI.

Customer preferences and needs in the purchase processes may increasingly be met by adopting channel integration, as potentially existing cross-channel synergies may be intensified and customer orientation may be eased (Schramm-Klein *et al.*, 2011). This arguably creates CS, which Elliot, Li and Choi (2013) found in their study to positively impact PIs.

Furthermore, Chen, Ching, and Tsou (2009) highlight that multi-channel retailing allows for more opportunities for consumers to inform themselves and initiate a purchase, as there are more touchpoints, both physical and virtual. In their study they discovered that usefulness in terms of providing information to consumers, positively impacts PI (*ibid.*). Arguably, it is thereby indicated that providing greater access to information through an omnichannel will generate increased PI.

By virtue of this theoretical discussion the following hypothesis is proposed:

H1b: There will be a difference in **purchase intention** attributable to the level of channel integration.

Level of Channel Integration and Brand Attitude

A brand is an added value to a product or service created by marketing managers, which enables consumer-recognizable and meaningful associations to be augmented to an

offering, reducing risk and saving time (Baines, Fill & Page, 2011). Liu, Mizerski, and Soh (2012) claim that *brand attitude (BA)* is a key component in valuing a brand's equity. A definition of attitude is offered by Mitchell and Olson (1981, p.318) and pertains to "an individual's internal evaluation of an object such as a branded product". BA is considered to be a relatively stable unidimensional summary of brand evaluations and is, as such a useful predictor of consumer behaviors toward products and services (Spears & Singh, 2014; Mitchell & Olson, 1981). Moreover, Park, *et al.* (2010) stress that BA has implications for consumption behaviors pertaining to for instance, repeat purchase, brand purchase, and brand recommendation willingness.

A quest to differentiate one's service is constantly needed by service organizations in order to enhance service offerings (Farell *et al.*, 1993). Zeithaml, Berry, and Parasuraman (1996) point out that superior service quality is central to customer loyalty formation. Additionally, Grace and O'Cass (2004) underscore the vitality of service impact on consumers' BAs. Furthermore, Carlson and O'Cass (2010) stress that retailers need to provide high quality service across both Internet and physical stores. Also, White, Joseph-Mathews, and Voorhees (2013) conclude that high quality service offline and online may create positive associations to the brand. From a reverse perspective, Kwon and Lennon (2009) point out that an inconsistency of products and services across channels may weaken a retail brand's image. When an omnichannel approach is considered, and the channels and touchpoints are managed together then "the perceived interaction is not with the channel, but with the brand" (Piotrowicz & Cuthbertson, 2014, p. 6). Arguably, adopting an omnichannel solution leads to a more holistic brand image, which in turn results in a more positive BA.

Finally, Yoo, Donthu and Sungbo (2000) state that consumers will be influenced to choose a brand over competing brands if they recognize a differentiation and superiority of the brand through high quality service. Important to keep in mind here is also what was mentioned previously, namely that as coordination between company touchpoints and technologies increase, companies end up with more satisfied customers (Savastano, Barnabei & Ricotta, 2016; Sousa and Voss, 2006). In addition, as a reaction to channel integration, the customers' service value perception may increase (Seck & Philippe, 2013).

Consequently, the following hypothesis is formed:

H1c: There will be a difference in **brand attitude** attributable to the level of channel integration.

Channel Content

Stoel, Wickliffe and Kyu (2004) underscore that engaging in pleasurable pursuits derives *hedonic value* and accomplishing an actual task generates a *utilitarian value*. The hedonic aspects refer "to the value received from the multisensory, fantasy, and emotive aspects of the shopping experience" (Blázquez, 2014, p.101). Several researchers claim that hedonic experiences are naturally more emotional, rather than rational, like the utilitarian experiences (Babin, Darden & Griffin, 1994; Drolet, Williams & Lau-Gesk, 2007; Holbrook & Hirschman, 1982) The utilitarian aspects are instead task oriented, non-emotional and cognitive (Blázquez, 2014). Babin, Darden and Griffin (1994) stress that a purchase does not have to be accomplished to attain a utilitarian value, it may be enough for the consumer to collect necessary instead of recreational information.

Channel Content and Customer Satisfaction

Holbrook (1986) underscores that both aspects, hedonic and utilitarian, are subjective, meaning that each individual has different perceptions in regards to what is considered hedonic or utilitarian. However, Kemp and Kopp (2011) state that consumers driven by emotions may appeal more to hedonic benefits contrary to consumers driven by cognitions, who seek more utilitarian benefits. Campbell (cited in Gabriel & Lang, 2006) also mentions that the two aspects may be thought of as separate or merged triggers. Yet, Blázquez (2014) stresses that the shopping experience can only be understood if both the utilitarian and hedonic aspects are considered. In a similar vein, Bäckström (2011) argues that there is no clear distinction between utilitarian and hedonic shopping experiences. For instance, since it most often is the actual acquisition that generates the pleasure, efficiency and target-orientation is sought after even when the goal of the shopping is to satisfy hedonic needs (ibid.).

Mummalaneni (2005) discovered that both arousal and pleasure positively affect CS, which Fiore, Jin, and Kim (2005) claim are related to hedonic attributes. In addition, the Makovsky web credibility study (2002), found that the superficial aspects of a site might receive more attention than the content. Yet, Mummalaneni (2005) argues that consumers' motives possibly play a role. Consumers with utilitarian motives focus on the completion of the task, whereas those with hedonic motives rather want to explore the site (ibid.).

In continuance, Tse, Belk and Zhou (1989) claim that consumers in developed consumer societies seek hedonic shopping values. This goes along with Arnold and Reynolds (2003) rendition that the entertainment aspect of retailing is a key competitive tool, since conventional manners, such as broad assortments and a low price, to entice customers, is no longer enough. Alpar (2001) for instance argues that website satisfaction is linked to entertainment. Ducoffe (1996) further proclaims the importance of entertainment of a site, as it can enhance the visitor's experience. In addition, Hausman and Siekpe (2009) mention that positive online behaviors are impacted more by hedonic factors than utilitarian factors. Consequently, this highlights the value of hedonic factors on consumer experience and satisfaction.

The above theoretical discussion derives the following hypothesis:

<p>H2a: There will be a difference in customer satisfaction attributable to type of channel content.</p>
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Channel Content and Purchase Intention

Belch and Belch (2003) place the notion of PI into the consumer buying decision process, stating that a PI is the outcome of the evaluation stage in which the consumer has gathered and evaluated information for an evoked set of product options. In developing their reasoning they claim that the process of matching customer purchase motives with characteristics of available brands is what generates PIs (ibid.). Indeed, Grewal *et al.* (1998) study showed that direct, as well as indirect effects of the store name, brand name and price discounts comprised 41 percent of the variance in PI.

Mazaheri, Richard and Laroche (2010) mention that attitudes are impacted by the effectiveness of information content. Consequently, PIs are influenced by for instance a website's ability to provide information. The authors also contend that PIs are positively correlated with the perception of service provided. Mummalaneni (2005) additionally comments that arousal affects the amount of time a consumer spends in a store, whereas

pleasure influences the number of purchased items. In continuance, Rosen and Purinton (2004) claim that online sales and repeat visits are perpetuated by sensory stimuli.

Finally, Chitturi, Raghunathan and Mahajan (2007) assert the “principle of hedonic dominance,” which entails that up to a certain inflection point functional attributes affect purchasing decisions the most and beyond this inflection point hedonic attributes dominate.

The above theoretical discussion generates the following hypothesis:

H2b: There will be a difference in **purchase intention** attributable to type of channel content.

Channel Content and Brand Attitude

A greater comfort and belief that the brand will meet expectations amongst consumers is achieved, as brands send favorable and familiar signals (Kim, Morris, & Swait, 2008). It is therefore of interest to elucidate what affects the consumer's brand perception. Whan Park *et al.* (2010) go on to stress that it is the brand's badness or goodness based on an individual's judgment, which generates a strong attitude. In continuance, Hoch (2002) mentions that product features have a favorable effect on BA and Shen and Chen (2007) underscore the inherent effect contextual features play. A study made by Yoon and Park (2012) offers further proof of this, as it discovered that sensory ads positively affect BAs.

Furthermore, Hwang, Yoon and Park (2011) found in their study that emotional, structural, and informational website characteristics influence BAs. Quantity and quality of information provided, as such play a role. The study further concluded that attitudes towards the website lead to an increase in BA. Consequently, a favorable reaction leads to a positive BA. In a similar vein, Babin, Darden and Griffin (1994) mention that it is not only the usefulness of an event, which indicates value, but also the appreciation of the activities comprising it. This is something Zeithaml (1988), as well as Holbrook (1986) highlight, as they claim that shopping value is not just created by the products, but the entire shopping experience, as such the usefulness and the activities comprise the shopping value.

The above rendition leads to into the following hypothesis:

H2c: There will be a difference in **brand attitude** attributable to type of channel content.

Digital Competence and E-commerce Experience (DCEE)

The notion of *digital competence* first appeared in academics in the late 1990s (Gilster, 1997). Subsequently, the meaning of digital competence has been the target of a large amount of studies, and modified parallel to the massive adoption of digital technology in society. Moreover, DC is founded in and has been developed alongside other concepts, such as end user computing (EUC), (Munro *et al.* 1997), digital literacy (Rivoltella, 2008) and information and communication technologies (ICT) (Cantoni & Tardini, 2008). Based on prior definitions of digital competence and the concept of competence, as a combination of knowledge, skills, attitudes (understanding and motivation),

Digitaliseringskommissionen (2015, p. 102) presented a definition which states that: “digital competence is made up of the extent to which you are familiar with digital tools and services and have the ability to keep up with the digital revolution and its impact on one's life”. In detail one shall firstly possess the knowledge to search for information, communicate, integrate and produce digital material. Secondly, one shall have the competence to use digital tools and services. Third, one shall have an understanding of the effect digitization has had on the transformation of society with regards to possibilities and threats, and finally one shall have a motivation to partake in the evolution (ibid).

Jonsson, Stoopendahl and Sundström (2015) mention that due to the variety of e-commerce maturity between categories such as books, toys, and food, a consumer purchasing from several categories online could be considered more competent. Furthermore, the authors claim that the more competent a consumer is, the more inclined s/he is to search for inspiration online. However, the physical store remains an important source for inspiration as well (ibid.). Sweden is in the forefront when it comes to digitization, such as cell phone usage, e-commerce, and trying new solutions (Jonsson, Stoopendahl & Sundström, 2014). This is especially true for the Y generation, or the Millennials, who are more positive toward technology than any other generation, perhaps due to their fluency and comfort with technology (Nielsen, 2014). However, even though there is a lower digital competence amongst older generations, reports have shown that the gaps between generations are decreasing (Findahl, 2014; Digitaliseringskommissionen, 2015). Also, important to note is that some may not perceive themselves as digital users even though they use digital technology, such as smartphones, consequently making it difficult to draw solid conclusions (Digitaliseringskommissionen, 2015). As interactive products become less visible, actively working to blend into the environment unnoticed (Hassenzahl & Tractinsky, 2006), the aforementioned group of people is likely due to increase.

The Direct and Moderating Effect of Digital Competence and E-Commerce Experience

Blázquez (2014) mentions that as familiarity with online shopping increases the process becomes more enjoyable. This goes hand in hand with Yoo and Donthu's (2001a) finding, that participants with longer Internet usage showed more favorable perceptions of the performance of Internet shopping sites. Ease of use, aesthetic design, speed, and security was positively correlated with the number of years of Internet use (ibid.). In addition, Herhausen *et al.* (2015) underscore that if a customer possesses less experience online, then s/he will also be less comfortable with a retailer's online channels. However, as consumers become more experienced with online shopping, they also become more critical to online shopping sites (Yoo and Donthu's, 2001a).

Consequently, the following hypothesis is rendered:

H3: There will be a difference in **a) customer satisfaction, b) purchase intention, and c) brand attitude**, attributable to the level of digital competence and e-commerce experience.

The use of digital tools and services, raise the demand for new digital solutions (Digitaliseringskommissionen, 2015), which is particularly evident within e-commerce. Shopping experiences have become social, permitting the consumers to communicate directly with companies as well as friends and other consumers (Jonsson, Stoopendahl & Sundström, 2015). Furthermore, digital services offer functions and clearer product

information, thus simplifying the actual purchase process. In addition, digitization enables more personalized buying experiences, that is, customers themselves decide not only what, but also how to buy a product. From a business perspective this forges challenges, since every purchase process becomes unique, thus less general assumptions can be made (ibid.). In continuance, adding more responsibility for the design of each shopping experience to the customers themselves raises other concerns. Indeed, Cassab and MacLachlan (2009) found that customer expertise or customer activity level may affect the link discovered between loyalty and multi-channel service, as this link may depend on quality and variability of customer inputs.

The above rendition leads to the following hypothesis:

H4: There will be a difference in **a) customer satisfaction, b) purchase intention, and c) brand attitude**, attributable to the **interaction effect** of the level of digital competence and e-commerce experience and the **level of channel integration**.

Overby and Lee (2006) render that the more Internet experience a consumer gains, the less visual appeals and experiential features on a website influences him/her. Instead, the consumer becomes more task-oriented, that is, utilitarian focused. The authors highlight the importance of this finding, as previous research has proven that in-store, utilitarian and hedonic value dimensions play almost equal roles in outcome prediction (ibid.). In addition, Nielsen (2014) states that saving money and finding deals, a utilitarian trait, is very important to the Millennials.

The aforementioned depiction generates the following hypothesis:

H5: There will be a difference in **a) customer satisfaction, b) purchase intention, and c) brand attitude** attributable to the **interaction effect** of the level of digital competence and e-commerce experience and the **type of channel content**.

Conceptual model & Manipulation Design

The causal relationship between the independent, dependent, and moderating variables along with the respective hypotheses form a conceptual model, illustrated below.

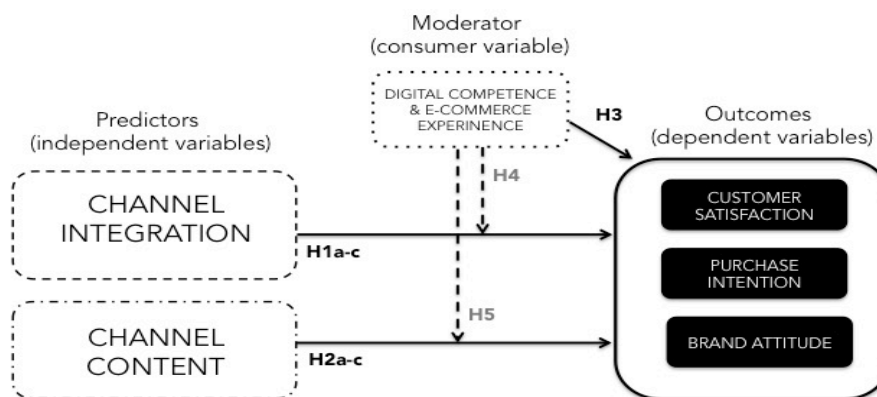


Figure 1: Conceptual Model

METHODOLOGY

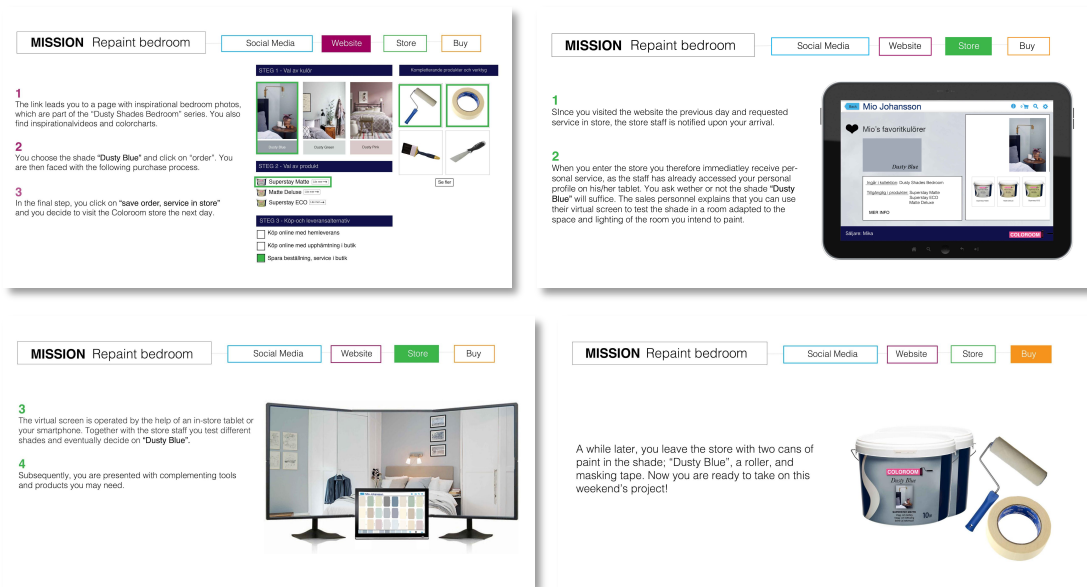
Experimental Design

In order to address the objectives of the research, that is to study cause and effect, and make within-subject and between-subject comparisons, the hypotheses were tested using a 3x2x3 mixed experimental design (Field & Hole, 2003; Charness, Gneezy & Kuhn, 2012). While keeping in mind that an experimental design includes at a minimum an experimental group and a control group (Bryman & Bell, 2015) and with the objectives of this study in mind, channel integration and channel content served as the independent variables being manipulated. Whereas CS, PI, and BA served as the dependent variables, being compared between the groups, DCEE served as a consumer moderating variable (see figure 1: conceptual model, above). The study's research questions and hypotheses were based on existing theory and as such a deductive approach was used (*ibid.*). This was a suitable method as causal relations were studied, allowing for a discovery of what factors affected the chosen variables (Söderlund, 2010) and under which circumstances. The scenarios and questions were predetermined, based on theory, and did not change throughout the experiment, thus a closed approach was used (Jacobsen, 2002).

Stimulus Development

The manipulations were based on scenarios, each describing a fictional shopping experience, which the respondents were asked to reflect upon and comment (see pictures 1-6, below). To make the experience as real as possible the respondents were faced with a mission: to repaint the walls of their bedroom. Paint was thus chosen as the product to be purchased. The paint industry has not kept up with digital transformation and is lacking e-commerce (*pers. comm.* Karlsson 2015-12-01), a dilemma which arguably soon will become problematic as a new generation of digital consumers enter the market with a propensity to utilize digital solutions throughout their buying process. For instance, the E-barometern report for Q1 2015 conducted by Postnord in collaboration with HUI Research and Svensk Digital Handel, showed that the construction industry is where e-commerce has increased the most with 39 percent, indicating an aggressive e-commerce expansion within the market.

Pictures 1-6: Scenario with Advanced Omnichannel and Hedonic Channel Content



The independent variable, channel integration was tested by creating three different levels of integration; firstly a multi channel where very little integration existed, secondly a basic omnichannel with medium integration, and finally an advanced omnichannel portraying high integration. In order to test the other independent variable, channel content (hedonic versus utilitarian), six combinations were forged (see table 1). Multichannel retailing was set as the integration level for the control groups for one main reason: multichannel retailing has undergone a steady increase during the last decade and currently it is the business model that is applied by most retail companies (Schramm-Klein *et al.*, 2011). As a result, customers have become accustomed with passing through several channels in their purchasing processes (*ibid.*). In addition, multichannel retailing describes the present market situation in the paint industry, where consumers can get in touch with a brand in several channels.

	Hedonic	Utilitarian
Multichannel	Control Group 1	Control Group 2
Basic Omnichannel	Test Group 1	Test Group 2
Advanced Omnichannel	Test Group 3	Test Group 4

Each scenario started with the aforementioned mission; to repaint a bedroom and subsequently it displayed a customer journey between three channels: a social media platform, company website and physical store, in which a purchase was made (see table 2 below). The multichannel scenarios portrayed shopping experiences where the customer him/herself navigated between different channels and brought the necessary purchasing information and personal preferences along. In the basic omnichannel scenarios, a link connected the company's social media content with the corresponding content on the company website and the customer could save his/her favorite products/colors, and

information, which later could be displayed and simulated in store, on virtual screens. Added to the advanced omnichannel scenario was the ability to complete the purchase online or choose other options, such as order online, collect in store. Moreover, the store personnel could access saved consumer information and orders and was notified when a customer was approaching the store enabling more efficient and customized in-store service. The bold text in table 2 below exemplifies what was added to each step of the purchasing journey, as the level of channel integration increased.

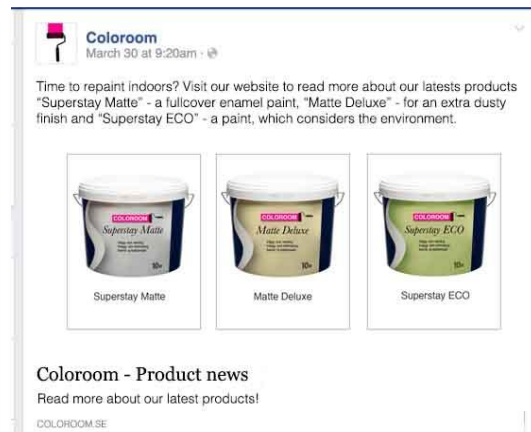
Table 2: Scenario Design			
	STEP 1: Social Media	STEP 2: Website	STEP 3: Physical Store
Multichannel (Control Group 1 & 2)	C2C recommendation; Facebook post asking friends for advice on color*/product**	Product/paint information: Visits company websites, navigates to inspirational photos*/product info**	Non-digital in-store service: Visits physical store, and asks the store staff for advice on color*/product**.
Basic Omnichannel (Test Group 1+2)	1. C2C recommendation: Social media post asking friends for advice on color*/product** 2. Corporate social media page ; Post about new colors*/new products** on the company's social media page with link to corresponding content on website	1. Product/paint information; Pictures and videos*/product information and videos** 2. Saves favorite color*/product*	Virtual screens : Saved colors*/products** are examined and tested on virtual screens together with store staff.
Advanced Omnichannel (Test Group 3+4)		1. Product/paint information: View inspirational pictures and videos/product information. 2. Creates an order with colors*/ products**, and suggested tools. Different payment, service and delivery options available.	1. Incoming customers notifications : Store staff are notified of the customers arrival and opens customer information on their tablets. 2. Virtual screens: Ordered colors*/products** are tested and compared on virtual screens together with store staff.

*=Hedonic channel content, **=Utilitarian channel content

The two channel content variables intended to represent different types of marketing communication throughout the shopping experience, as well as the nature of the information being shared. Hedonic channel content (marked with a * in the table above) focused on colors, inspiration and experience, whereas utilitarian channel content (**) highlighted product characteristics and aimed to be time-efficient. Table 2 above, gives an overview of what was displayed in each scenario throughout the purchasing journey; on social media, the website, and in the physical store, and pictures 7-10 below, exemplifies the hedonic and utilitarian content displayed in the scenarios.



Picture 7: Hedonic Social Media Post



Picture 8: Utilitarian Social Media Post



Picture 9: Hedonic In-Store Virtual Screen



Picture 10: Utilitarian In-Store Virtual Screen

Experimental Procedure

To ensure that the independent variables were being represented in the scenarios described, a pre-test was made with 33 participants using a snowball sample procedure. Each respondent was sporadically chosen to read one of the six scenarios and thereafter rank the level of integration on a 7-point scale, as well as to rank the scenario on a 7-point scale with utilitarian values (informative and efficient) on one side and hedonic (entertaining and inspirational) on the other. Moreover, they were asked to comment on the way their scenario was presented. The pretest revealed that a difference was noticeable between the hedonic and utilitarian scenarios as well as the level of integration. Some respondents however expressed a negative view to the length of the scenario text. Taking the results of the pre-test into consideration several modifications to the scenarios were made prior to conducting the main study. For example, it was decided that each scenario was to be presented in the form of a slideshow where each channel (social media, website, physical store) was being presented individually. Moreover, in each slide the scenario text was presented along with clarifying and augmenting images (see pictures 1-6).

The main study's survey was conducted in collaboration with PFM research and the respondents fulfilling the pre-set age criteria (20-35 years) were randomly selected from their online panel, and randomly assigned to one of the six scenarios. The target group of the research was people in charge of their household's resources and of making household decisions, and who are part of the Millennial generation, that is people who have grown up in the digitalized society (Nielsen, 2014). The importance of ascertaining

individuals who have grown up with constant online access is underlined by Piotrowicz & Cuthbertson (2014), as they claim that non-digital natives, those who have not grown up with this type of access, are different, for instance face-to-face interactions in store may still be preferred by them. The minimum age was set to 20 years, since the average age of young Swedish people leaving the parental household is 20.8 years (Eurostat, 2015). The maximum age was set to 35 years, as this is an approximate measure of the maximum age of the Millennial generation. All individuals in the population had an equal chance of being selected and as such it was a true experiment (Söderlund, 2010). A total of 360 randomly selected individuals (50 percent female, 50 percent male) participated in the study, making each cell size consist of 60 respondents randomly assigned to one of the six scenarios. Consequently, the sample size for each group exceeded the minimum of 30 respondents, mentioned by Nordfält (2007). The survey used in the main study contained five sections. To start off, the respondents were faced with a screening question asking them whether or not they live with their parents or guardians. The second section included two questions regarding the respondents' habit of purchasing paint. The third section contained the actual scenario with subsequent scenario questions. Manipulations check questions, as well as questions aimed at measuring the dependent variables were also included here. Following this, questions in regards to DCEE, as well as basic demographic questions pertaining to age and gender, were asked. As all respondents were Swedish, the survey and the respective scenarios were originally all presented in their mother tongue and were subsequently translated to English.

Manipulation Check Channel Integration

The perceived level of channel integration was measured through the question: "Which of the following statements most accurately depicts your experience with this purchase scenario? With a scale ranging between "1=No link between social media, website and services in stores; and 7= Great link between social media, website and services in stores". The control groups scored an average of 4.89 ($SD=1.44$), the average rank of the basic omnichannels was 5.11 ($SD=1.25$), and the advanced omnichannels had an average score of 5.38 ($SD=1.61$). In accordance with Levene's test, measuring whether there is a difference in variances within the groups, the variance within each group was not significant ($p>.05$) (Field, 2013). This meant that the assumption of homogeneity of variances was not violated (Field, 2013), thereby giving support for continued research. As such, the F-value, which indicates the treatment variance to the error variance ratio (Cortinhas & Black, 2012), could be retrieved from an ANOVA test, to examine whether there was a significant difference in means between the groups in experiments (Field, 2013). The test result, $F(2,357)=3.459$, $p<.05$, indicated that the respondents comprehended that there was a difference between multichannel-, basic omnichannel- and advanced omnichannel- scenarios, thus highlighting that the level of integration could be tested using the depicted scenarios.

Manipulation Check Channel Content

The perceived hedonic and utilitarian value of the channel content was measured using five questions each, comprising of 7-point semantic-differential scales crafted by Voss, Sprangenberg and Grohmann (2003). These were transformed into two 7-point-scaled indices, one hedonic (Cronbach's alpha .887) and one utilitarian (Cronbach's alpha .876) (see appendix 2.1). Both indices reflect internal coherency, as their Cronbach's alphas are above .7 (Kline, 1999 in Field, 2013). The difference in variance within each group (hedonic scenarios and utilitarian scenarios) was according to Levene's test not significant

($p_{\text{utilitarian}}=.186$, $p_{\text{hedonic}}=.317$), thus the assumption of homogeneity of variances is established. Further, there was no significant difference in the perception of utilitarian and hedonic values between the groups that experienced the utilitarian or the hedonic shopping scenarios ($F_{\text{utilitarian}}(1, 358)=.013$, $p>.05$, $F_{\text{hedonic}}(1, 358)=.844$, $p>.05$) (see appendix 3). Due to the lack of divergence in perceived hedonic/utilitarian value recognition, **hypotheses H2a, H2b, H2c and H5 could not be tested** as potential differences in mean values among the dependent variables could not be attributed to the type of channel content. Hence, these hypotheses were excluded from further research within this study.

However, by conducting a mean comparison t test where the utilitarian and hedonic indices were set as a pair it could be concluded, based on the findings presented in table 3 below, that the respondents perceived all shopping scenarios to be more utilitarian in nature than hedonic, as the mean perceived utilitarian value was 5.04 ($SD= 1.12$) and mean perceived hedonic value was 4.41 ($SD=1.20$), resulting in a significant difference at $p<.001$.

	Mean	N	Std. Deviation	Std. Error Mean	Correlation	Sig.
Utilitarian Index	5.04	360	1.12	.05916	.601	.000
Hedonic Index	4.41	360	1.20	.06329		

Measures

Before analyzing the result, three indices, comprising of 7-point scales, were created for each of the dependent variables; CS, PI and BA respectively (see table 4 below). The three CS questions were extracted from Johnson *et al.* (2001) and slightly modified in order to better reflect a shopping experience. A 7-point semantic-differential scale was used for each of the questions and together they formed an index ($\alpha_{\text{CS}}=0.908$). The PI index ($\alpha_{\text{PI}}=0.943$) included four questions with 7-point likert scales, presented by Yoo and Donthu (2001b). Finally, BA was measured using Spears and Singh's (2009) index ($\alpha_{\text{BA}}=0.931$), which pertains to five questions, each using a 7- point semantic-differential scale. Thus, all the indices received a Cronbach's α above .7, a sign that the scales were deemed reliable (Kline, 1999 in Field, 2013).

Table 4: Dependent Variables Scale Creation		
Measurement	Question	Source
Customer Satisfaction Cronbach's alpha: 0,908	How satisfied or dissatisfied are you with this shopping experience? (Very dissatisfied/Very satisfied)	Johnsson <i>et al.</i> (2001)
	To what extent does this shopping experience meet your expectations? (Not at all/totally)	
	Imagine a shopping experience that is perfect in every respect. How near or far from this ideal do you find this shopping experience? (Very far from/cannot get any closer)	
Purchase intention Cronbach's alpha: 0,943	I will definitely buy products from this site in the near future	Yoo & Dontu (2001b)
	I intend to purchase through this site in the near future	
	It is likely that I will purchase through this site in the near future	
	I expect to purchase through this site in the near future	
Brand attitude Cronbach's alpha: 0,931	What is your comprehension of the brand Coloroom based on the purchase scenario you just took part in? 1. Unappealing/ appealing 2. Bad/ good 3. Unpleasant /pleasant 4. Unfavorable /favorable 5. Unlikable / likable	Spears & Singh (2004)

The consumer variable; DCEE was the focal point of the fourth section with modified questions from several national indices (Svenskarna och Internet, 2015; E-barometern Q1 2015, 2015; E-handeln Norden 2015, 2016). These questions pertained to; amount of digital devices used during a typical week, number of internet activities during a typical week, self-perceived digital literacy, e-commerce shopping frequency, web- and showrooming behavior, and finally, omnishopping behavior. Through median splits, the scales of these questions (4.1-4.7, see appendix 2.2) were transformed into dichotomous variables where 1=low DCEE and 2=high DCEE. Some researchers claim that the interpretation and conduction of analysis is simplified by the dichotomization of a variable, specifically as it enables the use of an ANOVA model (Iacobucci *et al.* 2014; DeCoster, Iselin & Gallucci, 2009). Iacobucci *et al.*'s (2014) study also found that creating a median split on a continuous variable and using it as a factor in ANOVA does not form misleading results. In addition, Cortinhas and Black (2012) claim that the median is particularly good as it is unaffected by extreme values. Subsequently, it was tested whether the seven dichotomous scales could be referred to as a single index representing consumers' DCEE.

The index had a normal distribution and the scale reliability analysis showed a Cronbach's alpha of $\alpha=.597$. It has been suggested that a Cronbach's alpha as low as .5 may be sufficient in the early stages of research (Nunnally in Field, 2013), thus the test result arguably showed a certain degree of reliability. In order to assign each respondent a level of DCEE the dichotomous scales were summarized for each respondent respectively. As a final step the data set was trichotomized by increasing score, into three groups dependent on the respondent's level of DCEE (1=low, 2=medium, 3=high). This division was firstly guided by the median score, which served as a representative for the medium

group. Secondly, the group size was taken into account, ensuring that the three groups were of an approximate equal size (see appendix 2.2). This was done in order to ease analysis, yet still portray a more nuanced result than a dichotomous grouping would allow.

Reliability of the Study

According to Bryman and Bell (2015) a true experiment, where independent variables are manipulated in order to discover whether or not they influence the dependent variables, tend to possess strong internal validity. Indeed, Jacobsen (2002) states that internal validity is attained when the test measures what it is supposed to do. Therefore, if the test did not measure what it was supposed to, the presumed causal relationship was not further examined (ibid.). In order to test the impact of the manipulations and discover their effect on the outcome, other influential factors were controlled (Creswell, 2009). As individuals were assigned randomly, each respondent had an equal chance of being selected to different scenarios, and it was therefore possible to see if it indeed was the treatment that influenced the outcome and not other factors (ibid.). A random dispersion into groups was generated, as outlined by Creswell (2009). Consequently, Bryman and Bell (2015) stress that differences between groups may be contributed to the manipulation of the independent variable. In addition, as two control groups were used, rival explanations of causal findings could be eliminated (ibid.).

RESULTS

Direct Effects of Level of Channel Integration on Customer Satisfaction, Purchase Intention and Brand Attitude

Hypotheses H1a, H1b and H1c were tested using One-Way ANOVA. The results, presented below in table 6, show that there are no significant differences in terms of PI and BA between the different levels of channel integration within each group, as acknowledged through Levene's test ($p_{PI}=.053$, $p_{BA}=.133$). However, the variance within the groups in terms of CS, was significant at $p_{CS}<.05$. Subsequently, the variance between the three integration groups was tested, which showed that there were no significant differences in any of the outcome variables ($F_{CS}(2,357)=.666$, $p>.05$; $F_{PI}(2,357)=.557$, $p>.05$; $F_{BA}(2,357)=.125$, $p>.05$). From this result, it is evident that the level of integration does not directly affect the customers' level of CS, PI nor BA. Thus, based on the aforementioned amplification, **hypotheses H1a-c are rejected**. However, as can be noted in table 5, the respondents were quite satisfied with all levels of channel integration.

	Multichannel (Control Group 1 +2)	Basic Omnichannel (Test Group 1+2)	Advanced Omnichannel (Test Group 3+4)
Customer Satisfaction	M=4.89 SD=1.14	M=4.71 SD=1.06	M=4.82 SD=1.44
Purchase Intention	M=4.17 SD=1.30	M=4.06 SD=1.30	M=3.98 SD=1.56

Brand Attitude	M=5.08 SD=1.08	M=5.10 SD=0.99	M=5.03 SD=1.26
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Table 6: Direct Effects of Level of Channel Integration on Customer Satisfaction, Purchase Intention and Brand Attitude					
	Levene's Test - Test of Homogeneity of Variances	ANOVA - Equal Variances Assumed			
		df1	df2	F	Sig
Customer Satisfaction	F(2,357)=7.708, p=.004	2	357	.666	.514
Purchase Intention	F(2,357)=2.966, p=.053	2	357	.557	.574
Brand Attitude	F(2,357)=2.028, p=.133	2	357	.125	.882

Direct and Moderating Effect of Digital Competence and E-commerce Experience on the dependent variables

The direct effect of the predictor variable (channel integration) on the outcomes (CS, PI and BA) was previously proven to be insignificant. Subsequently, tests were made to examine if there was a difference in CS, PI, and BA, attributable to the interaction effect of the level of DCEE; low, medium and high, and the level of channel integration; multi-channel, basic omnichannel, and advanced omnichannel. The interaction effect measured, in more conceptual terms, is referred to as moderation effect (Field, 2013). See figure 2 below.

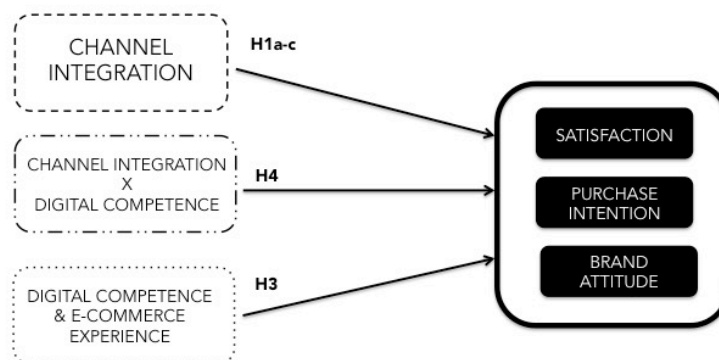


Figure 2: Direct effect and moderation effect of Digital Competence & E-Commerce Experience

The Direct Effect of Level of Digital Competence and E-Commerce Experience on Customer Satisfaction, Purchase Intention and Brand Attitude

Levene's test indicated that there was a significant difference in variance within the aforementioned consumer groups, in terms of BA ($p_{BA} = .002$), but not CS, ($p_{CS} = .404$) and PI ($p_{PI} = .175$). An ANOVA test showed that there was a significant difference in means

between the different levels of DCEE for CS, PI and BA ($F_{CS}(2,357)=9.060$, $p<.001$, $F_{PI}(2,357)=10.783$, $p<.001$), $F_{BA}(2,357)=12.619$, $p<.001$). However, following the result of the Levene's test for the BA variable, stating that equal variances cannot be assumed, a Welch test was used. The result ensured that the significant difference presented in the ANOVA output was robust, also when the inequality of variances was taken into account. Thus, there was a significant difference attributable to level of DCEE in terms of all dependent variables (see table 7 below and appendix 4) and consequently, **H3a, H3b, and H3c** were accepted.

Dependent Variable	Levene's Test - Test of Homogeneity of Variances	ANOVA - Equal Variances Assumed				Welch - Equal Variances Not Assumed			
		df1	df2	F	Sig.	df1	df2	F	Sig.
Customer Satisfaction	F(2, 357)=.908, $p>.05$	2	357	9.060	.000				
Purchase Intention	F(2, 357)=1.754, $p>.05$	2	357	10.783	.000				
Brand Attitude	F(2, 357)=6.206, $p<.05$	2	357	12.619	.000	2	171	13.203	.000

The Interaction Effect of Level of Digital Competence and E-Commerce Experience and Channel Integration on Customer Satisfaction, Purchase Intention and Brand Attitude

In order to test whether there existed an interaction effect between the two predictors on all dependent variables a multivariate test of variance (MANOVA) was conducted. With Wilks' Lambda=.973, $p>.05$, it could be concluded that an interaction effect between DCEE does not apply to all outcome variables. The between-subject output (see table 8 below) however proves a significant difference attributable to the interaction effect on PI ($F(4,488)=2.807$, $p<.05$).

Source	Outcome	Type III Sum of Squares	df1	df2	Mean Square	F	Sig.
Channel Integration X DCEE	Customer Satisfaction	7.783	4	488	1.946	1.344	.252
	Purchase Intention	20.486	4	488	5.122	2.807	.025
	Brand Attitude	3.700	4	488	.925	.785	.535

Through a graphical analysis (see figure 3 below) it was noted that the level of integration has a negative effect on PI in the low DCEE group and the high DCEE group, whereas there was a clear positive relation between the level of integration for the medium integrated group. However, the slope in the low DCEE group is linear and greater than the slope of the high DCEE group, which indicated an exponential slope. In addition, the level of PI raised out of the two omnichannel integration levels was higher in the medium group and the high group than in the low group. Thus, **hypothesis four was partially accepted (4b), and partially rejected (4a,c).**

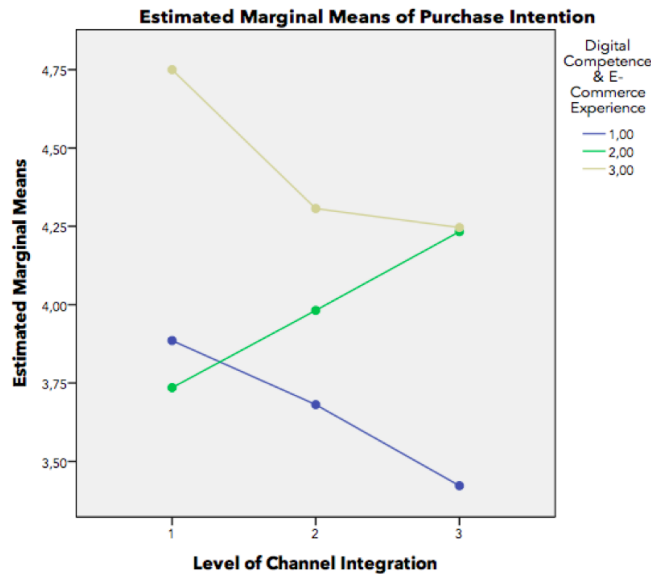


Figure 3: Interaction effect of DCEE and level of channel integration on PI

DISCUSSION

The overall objective of this study was to examine if level of channel integration and type of channel content impact customer satisfaction (CS), purchase intention (PI), and attitude towards the brand (BA), as well as whether these effects are moderated by the customers' level of digital competence and e-commerce experience. Even though the study failed to examine differences in channel content, that is hedonic and utilitarian value perceptions, the obtained results present several interesting findings, reassuring some previous presumptions and contradicting others.

Channel Integration

<p>H1: There will be a difference in a) customer satisfaction b) purchase intention, and c) brand attitude attributable to the level of channel integration.</p>	<p>a) Rejected b) Rejected c) Rejected</p>
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No significant difference was visible when looking at the effect of the three levels of integration measured; multichannel, basic omnichannel, and advanced omnichannel, on

the dependent variables; CS, BA, and PI. Without a doubt this result stirs the pot when it comes to previous perceptions of omnichannels and their highlighted effects. Savastano, Barnabei and Ricotta (2016), as well as Sousa and Voss (2006) mentioned that greater coordination between touch points and technologies result in more satisfied customers who spend and purchase more. Also, Kwon and Lennon (2009) stressed that more positive customer evaluations of the brand will be generated following a seamless integration between channels. In addition, it was pointed out that the customers' value perception of the service will increase as a result of channel integration (Seck & Philippe, 2013). Yet, as aforementioned, the results of this study show that greater coordination does not seem to affect CS, PI, nor BA, thus contradicting previous researchers' findings. Perhaps a partial explanation for the results of this study could be that the scenarios pertain to paint, an industry, which is digitally underdeveloped, with no e-commerce (*pers. comm.* Karlsson 2015-12-01). Consequently, the multichannel scenarios arguably present a purchase process that the respondents may be used to and thus expect. Therefore, perhaps their basic demands and expectations are being met, which Söderlund (2001) claims is the most fundamental aspect in order to ascertain satisfaction, and Johnson *et al.* (2001) maintains as well. However, they all hint that if the perceived performance exceeds previous expectations, more satisfaction should be noticeable (*ibid.*; Söderlund, 2001), which is not visible in this study. Arguably, it may be true that consumers' expectations have increased along with their demands for an integrated experience following digitization, as stressed by Sorescu *et al.* (2011) and Blázquez (2014), however perhaps consumers are simply not as demanding of this integrated experience within all industries.

Channel Content

<p>H2: There will be a difference in a) customer satisfaction, b) purchase intention, and c) brand attitude attributable to type of channel content.</p>	<p>Manipulation not sufficient to test the hypotheses</p>
<p>H5: There will be a difference in a) customer satisfaction, b) purchase intention, and c) brand attitude, attributable to the interaction effect of level of digital competence and e-commerce experience and type of channel content.</p>	<p>Manipulation not sufficient to test the hypothesis</p>

All the scenarios were conceived to be more utilitarian than hedonic. Perhaps a reason for this is that people put more focus on practical functions rather than the amount and configuration of the content. As Bäckström (2011) stated, efficiency and target-orientation is demanded even if a consumer's goal with the shopping trip is to satisfy hedonic needs, thus making it a fundamental aspect in any purchase process and at the same time captioning that there is no definite distinction between hedonic and utilitarian shopping experiences. Mazaheri, Richard and Laroche (2010) also mentioned that the effectiveness of information content impacts consumer attitudes. Consequently, the result of this study is not directly negative; it simply indicates that perhaps extraordinary measures are needed in order to cultivate a purchase process considered more hedonic than utilitarian.

Digital Competence and E-Commerce Experience

H3: There will be a difference in a) customer satisfaction, b) purchase intention, and c) brand attitude, attributable to the level of digital competence and e-commerce experience.	a) Accepted b) Accepted c) Accepted
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The importance of putting great emphasis on consumer value-adding activities and adaptation to different types of customers in the process of developing omnichannels, has previously been stressed by Herhausen *et al.* (2015), as well as Lazaris and Vrechopoulos (2014). It is also given further support following the results of this study. Customers with a higher level of DCEE expressed a higher level of CS with the shopping scenarios presented, than customers with lower level of DCEE. As such, the study reinforces previous researchers' claim that there is a positive relationship between digital familiarity, and CS (Yoo & Donthu, 2001a; Blásquez, 2014). In addition, the results show that a higher level of DCEE facilitate a higher PI and BA. Herhausen *et al.* (2015) depicted that less digital consumer experience leads to a greater discomfort with a retailer's online channels. Yoo and Donthu (2001a) also found, that there exists a positive correlation between the number of years of Internet use and ease of use, aesthetic design, security and speed. While considering these renditions, this finding does not come as a surprise, instead it arguably reassures previous beliefs.

The digitalized retail marketplace characterized by new in-store and mobile technologies (Piotrowicz & Cuthbertson, 2014) is placing higher demands on customers' ability to embrace the content and services that accompanies the technical solutions (Park, Rha and Widdows, 2011). Although Millennials generally are considered as being digitally fluent (Nielsen, 2014), this study shows differences in digital literacy within the target group, with a normal distribution in the DCEE. As stressed by Pantano (2014), uncertainty connected to consumers' reactions is already today the main restraining force in the digitalized marketplace. Adapting to individual differences will probably pose an even greater challenge in the future, following Hassenzahl and Tractinsky's (2006) remark that digital solutions appear more and more in the background and based on Digitaliseringskommissionen's (2015) rendition, that people therefore are not aware of when they are being users of digital technologies. In congruence with their reasoning, digital solutions will thus blend into non-digital shopping experience attributes, which will make it harder to distinguish the reactions that follow a specific technological implementation. On the other hand, that is exactly what omnichannel retailing is all about. Jonsson, Stoopendahl and Sundström (2015) also stress that a wide range of tools are now available on the market, allowing companies to effectively analyze and gain insights in regards to consumers' digitalized footprints, following their purchasing processes. As such, it can be suggested that companies can learn from customers' digital behavior, even when the customers themselves are not aware of that they are using digital technologies, and ergo, tailor purchasing processes accordingly.

H4: There will be a difference in a) customer satisfaction, b) purchase intention, and c) brand attitude attributable to the interaction effect of level of digital competence and e-commerce experience and level of channel integration.	a) Rejected b) Accepted c) Rejected
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Given that the development on the market is moving towards full integration between online and offline channels (Verhoef, Kanna & Inman, 2015), and following Binder and

Springer's (2014) suggestion to examine potential moderating variables in connection with channel integration, a test was conducted to study whether there occur an interaction effect between channel integration and level of DCEE. The result showed a significant difference in terms of PI, at first suggesting that the more digitally competent a person is and the more e-commerce experience a person has, the greater PIs s/he may get out of technical solutions and integration between channels. However, upon further analysis it became evident that the relationship was not this simple. Indeed, both high and medium DCEE resulted in higher PI than low DCEE, yet only low and medium DCEE followed the previous presumption made. For the highest DCEE, a negative relationship surprisingly existed between level of channel integration and PI, forming an almost u-shaped curve. A possible explanation could be that the respondents were forced to follow a predetermined shopping process and were not allowed to choose freely him or herself when, as well as what channels and touchpoints, to use. After all, Overby and Lee (2006) mentioned that Internet experienced individuals become more task-oriented. In addition, Jonsson, Stoopendahl, and Sundström (2015) highlighted that no consumer purchase process equals another, and Sousa and Voss (2006) underscored the importance of freedom of choice of type of channel, in relation to integration quality. Therefore, if the respondents had the knowledge to complete the task in a more efficient manner, and since they were forced to follow the exact same shopping process even though their shopping processes normally would differ, this could arguably constitute the decrease in PI visible.

A reflection to be made is that in order to take part of services, or technical solutions, that simplify and make a purchase process more efficient, the customer must posit the actual knowledge of the existence of such a technical solution. For instance, there exists plenty of apps today, yet if we do not know which one to download and what its purpose is, then it will not be used. Arguably, the group with medium digitization could be interpreted to belong to a group characterized by the comprehension of the existence of the digital solutions, but perhaps not a deeper knowledge of the ins and outs of the different types of digital solutions. The members of the group with high digitization on the other hand, possibly have higher demands, as they have more knowledge and thus perhaps find the highly integrated scenario too long and rigid. Jonsson, Stoopendahl and Sundström, (2014), as well as Blázquez (2014) for instance rendered that consumers are becoming more demanding as a result of an increase in expectations, formed on the basis of knowledge. At the same time, the members of the group with low digitization perhaps are more critical to the new digital solutions rendered in the scenarios. After all, and as mentioned by Pantano (2014), a vital success variable of an innovation is the acceptance of the new technology by the customer.

While a significant effect indeed was detected in terms of PI, the level of CS and BA, remained at an equal level in all three groups (multichannel, basic omnichannel, and advanced omnichannel). If one is to believe Piotrowicz and Cuthbertson (2014) who stress that omnichannel retailing puts brands in the forefront in a shopping experience, it can be questioned why channel integration moderated by DCEE did not have an effect on BA. On the other side of the coin however, this means that the level of integration and the customers' DCEE will not damage the brand. Further, Yoo and Donthu (2001a) stressed that as customers become more familiar with e-commerce they become more critical. As such, it would not be surprising if the increased DCEE would have a negative impact on CS, yet this was not demonstrated here. An explanation to the lack of this phenomenon here, may be the idea of cumulative satisfaction, that is, the notion of satisfaction as a sum total of all retail encounters, not explicitly connected with a single transaction (Jonsson *et al.*, 2001).

The solution for how to increase the level of PI among customers with lower digital skills may be attributed to simplification of technology. The argument is based on

Herhausen *et al.* (2015) who underscore that a low level of e-commerce experience makes customers uncomfortable with retailers' online channels. Further, Cassab och MacLachlan (2009) remark that the link between loyalty and multichannel services largely depends on customer inputs, in combination with the fact that customers themselves increasingly determine the design of their purchasing processes, as stressed by Jonsson, Stoopendahl and Sundström (2015). Arguably, the more power customers are given to the formation of their shopping experiences, the more the purchasing processes are affected by individual consumer variables, such as DCEE, and the more important it is that retailers make the components of the process as accessible and simple as possible.

Conclusion, Contributions and Managerial Implications

From the above results and discussion, this study indicates that there is no connection between the level of integration and CS, PI, and BA, thus contradicting previous presumptions. Type of channel content and its impact on CS, PI, and BA could not be measured, yet all the scenarios were perceived to be more utilitarian than hedonic. Consequently it is stressed that in order to obtain a hedonic customer perception of the shopping experience rather than utilitarian, retailers need to go to great lengths. When it came to the moderating effects of DCEE, a higher level of DCEE resulted in a higher level of CS, thus vindicating previous perceptions. Finally, when DCEE interacts with channel integration, it is clear that PIs react to an increase in DCEE, in congruence with previous knowledge.

Following the finding that there was no significant difference between the levels of channel integration and their effect on CS, BA, and PI, businesses should arguably not be too hasty to adapt an omnichannel strategy, as it does not automatically result in an increase of CS, PI and BA. It is likely that the cross-channel services creates added value, especially among customers who have a high degree of DCEE, but companies must give customers the choice to determine the length of their purchasing processes, how much customer information is to be shared between channels, and ensure that the digital tools available is easily maneuverable.

The fact that all the scenarios were perceived as more utilitarian rather than hedonic, regardless of the level of channel integration and type of channel content, makes it questionable if a company should place resources on creating hedonic channel content. This is based on the foundation that a rather high CS was attained when all the scenarios were perceived more utilitarian. Customers seem to be more concerned with that the purchasing processes run smoothly, rather than what type of information is presented in the different channels.

From our findings it is clear that differences in level of DCEE occurs also within Millennials, a generation, which has grown up in an increasingly digitalized society. Managers should therefore include the risk of diverse reactions to the introduction of technical solutions online and in physical stores. However, digital solutions do not appear to reduce a customer's purchase experience significantly, instead they seem to bring great opportunities in making the experience exceptional. For instance, a virtual screen may simulate a customer's bedroom, allowing him or her to see the direct effect of a possible purchase. Arguably this results in more satisfied customers, as it facilitates a closer match between expectations and perceptions, and CS may then lead to customer loyalty in the long hall.

Limitations and Future Research

Perhaps the fact that the respondents successfully completed their task in the scenarios, that is, was taken through a purchase process, which ended with a purchase, affected

their perception. After all, Stoel, Wickliffe and Kyu (2004) mention that an actual task accomplishment results in a utilitarian value and Bäckström (2011) argues that pleasure is generated by the actual acquisition. Consequently, the formation of the scenarios may have limited the scope of this study.

Furthermore, we did not test for a difference in pricing or product assortment in the channel integration scenarios, which Kireyev *et al.* (2014) and Emrich *et al.* (2015) mention as challenges companies face while attempting channel integration. An inconsistency of products and services across channels was neither included, thus Kwon and Lennon's (2009) statement that this may weaken a retail brand's image could not be commented upon. It would, as such be interesting to conduct a study where these aspects can be reviewed.

In continuance, the maturity level of the paint industry within e-commerce is low, as has been stated, which makes it interesting to discover what effect this may have played. Therefore, instead of measuring the effect of channel content on CS, PI and BA, it would be interesting to compare the paint industry to a more digitally evolved industry, with a distinct e-commerce. For instance, one could compare the consumption of paint to that of toys or books.

Another idea for future research could be to focus on omnichannels from a business perspective, instead of a consumer perspective, which was done in this study. For instance, an extension to Rosenbloom's (2007) multichannel study, which examined different channel configurations and context mixes in order to utilize a structure for competitive advantage, could be made.

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APPENDIX 1 – Survey

PART 1 - Introduction

Which statement matches you?

I live with my parents or custodial guardians	I DO NOT live with my parents or custodial guardians
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PART 2 - Paint Consumption

The following questions pertain to your habit of and attitude to purchase paint for outside or inside usage (E.g. walls, ceiling, furniture, or house exterior). NOTE: Not artistry!

When did you last purchase paint?

I have never purchased paint	More than 5 years ago	1-5 years ago	6-12 months ago	1-6 months ago	2-4 weeks ago	1-7 days ago
------------------------------	-----------------------	---------------	-----------------	----------------	---------------	--------------

2) Are you contemplating to purchase paint?

No, I do not intend to ever purchase paint	Yes, but not within the next 5 years	In 1-5 years	In 6-12 months	In 1-6 months	In 2-4 weeks	In 1-7 days
--	--------------------------------------	--------------	----------------	---------------	--------------	-------------

PART 3 - The Omnichannel Scenario

You will now be presented with a scenario, which illustrates a purchasing process pertaining to paint, from the fictive company "Coloroom". Pretend that you are in the portrayed situation and executing the described purchasing process.

(SCENARIO SLIDE SHOW)

You will now be presented with a couple of questions where you will be asked to contemplate on the scenario you just read.

1) Contemplate on your experience of the purchase scenario and answer what most closely matches your perception:

1 No connection between social media, the homepage, and services in store	2	3	4	5	6	7 Large connection between social media, the homepage, and services in store
--	---	---	---	---	---	---

2) Contemplate on your experience of the purchase scenario and answer what most closely matches your perception:

1 Ineffective	2	3	4	5	6	7 Effective
------------------	---	---	---	---	---	----------------

1 Unhelpful	2	3	4	5	6	7 Helpful
----------------	---	---	---	---	---	--------------

1 Not functional	2	3	4	5	6	7 Functional
---------------------	---	---	---	---	---	-----------------

1 Unnecessary	2	3	4	5	6	7 Necessary
------------------	---	---	---	---	---	----------------

1 Impractical	2	3	4	5	6	7 Practical
------------------	---	---	---	---	---	----------------

1 Not fun	2	3	4	5	6	7 Fun
--------------	---	---	---	---	---	----------

1 Dull	2	3	4	5	6	7 Exciting
-----------	---	---	---	---	---	---------------

1 Not delightful	2	3	4	5	6	7 Delightful
---------------------	---	---	---	---	---	-----------------

1 Not thrilling	2	3	4	5	6	7 Thrilling
--------------------	---	---	---	---	---	----------------

1 Unenjoyable	2	3	4	5	6	7 Enjoyable
------------------	---	---	---	---	---	----------------

3) On the basis of the described shopping experience, please answer the following questions:

How satisfied or dissatisfied are you with this shopping experience?

1 Very dissatisfied	2	3	4	5	6	7 Very Satisfied
------------------------	---	---	---	---	---	---------------------

To what extent does this shopping experience meet your expectations?

1 Not at all	2	3	4	5	6	7 Totally
-----------------	---	---	---	---	---	--------------

Imagine a shopping experience that is perfect in every respect. How near or far from this ideal do you find this shopping experience?

1 Very far from	2	3	4	5	6	7 Cannot get any closer
--------------------	---	---	---	---	---	----------------------------

I will definitely buy products from this site in the near future

1 Definitely do not agree	2	3	4	5	6	7 Agree completely
------------------------------	---	---	---	---	---	-----------------------

I intend to purchase through this site in the near future

1 Definitely do not agree	2	3	4	5	6	7 Agree completely
------------------------------	---	---	---	---	---	-----------------------

It is likely that I will purchase through this site in the near future

1 Definitely do not agree	2	3	4	5	6	7 Agree completely
------------------------------	---	---	---	---	---	-----------------------

I expect to purchase through this site in the near future

1 Definitely do not agree	2	3	4	5	6	7 Agree completely
------------------------------	---	---	---	---	---	-----------------------

4) How do you perceive the brand "Coloroom" based on the scenario you just experienced?

1 Unappealing	2	3	4	5	6	7 Appealing
------------------	---	---	---	---	---	----------------

1 Bad	2	3	4	5	6	7 Good
----------	---	---	---	---	---	-----------

1 Unpleasant	2	3	4	5	6	7 Pleasant
-----------------	---	---	---	---	---	---------------

1 Unfavorable	2	3	4	5	6	7 Favorable
------------------	---	---	---	---	---	----------------

1 Unlikable	2	3	4	5	6	7 Likable
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PART 4 - Digital Competence and User Frequency

The following questions regard your digital units, and your use of digital units, where focus is on your use of the Internet, and social media in relation to the purchase of products.

1) During a typical week, which digital units do you use? (Several answers possible)

Computer
Tablet
Smartphone
Smartwatch
Media streamer (Apple TV, Chromecast, TiVO etc)
Other digital units
None

2) During a typical week, which activities do you indulge in on the Internet? (Regardless of the digital unit type- several answers possible)

Watch TV or Video
Listen to podradio
Listen to music
Reading news
Reading blogs
Writing a blog
Visiting and communicating on a social network
Writing and reading e-mail
Videocall
Searching for information/facts
Buying/selling products, services or experiences
Purchasing stocks, funds etc.
None of the above

3) How knowledgeable do you perceive yourself to be when it comes to digital units and the Internet?

1 Not knowledgeable at all	2	3	4	5	6	7 An expert
----------------------------------	---	---	---	---	---	----------------

4) How often do you purchase products online?

Every week	2-3 times a month	Once in awhile every month	Sometime every quarter	Sometime every half year	Sometime every year	Never
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5) Have you at any time the past three months first researched a product online and later bought it in a physical store?

YES	NO
-----	----

6) Have you at any time the past three months first checked out or tried a product in a physical store in order to later buy it online?

YES	NO
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7) Have you ever used your cell phone for any of the following? (Several answers possible)

Taken a photo of a product and / or a price tag with your cell phone, in a physical store, before a possible purchase
Searched for a store close by
Researched a product with your cell phone when you are in a physical store
Checked the stock of a product before visiting a store
Received deals on your cell phone from a store where you are a member
"Checked into" a store through social media
Paid for a product with your cell phone when you are in a physical store
None of the above
Doubtful, do not recollect

PART 5 - Demographics

1) Gender

MAN	FEMALE	OTHER
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2) Age

(Drop-down menu)

APPENDIX 2 – SCALES

2.1 Hedonic and Utilitarian Channel Content Scale Creation

Utilitarian Index		Hedonic Index	
Cronbach's Alpha	Question	Cronbach's Alpha	Question
0,876	1=Ineffective ... 7=Effective	0,887	1=Not fun ... 7=Fun
	1= Unhelpful ... 7= Helpful		1= Dull ... 7= Exciting
	1= Not functional ... 7=Functional		1= Not delightful ... 7=Delightful
	1=Unnecessary ... 7=Necessary		1=Not thrilling ... 7=Thrilling
	1= Impractical ... 7=Practical		1= Unenjoyable ... 7=Enjoyable

2.2 Digital Competence & E-Commerce Experience Scale Creation- Median Splits & Grouping

Median Splits			
Question	Scale	Median	Grouping
4.1 Digital usage	0-6	2	Low* = 0-1,9 High**=2-6
4.2 Internet activities	0-12	6	Low* = 0-5,9 High**=6-12
4.3 Self-perceived digital literacy	1-7	5	Low*= 1-4,9 High**=5-7
4.4 E-Commerce Shopping Frequency	1-7	5	Low* = 1-4,9 High**=5-7
4.5 Webrooming behavior	Yes/No	-	Low*=No High**=Yes
4.6 Showrooming behavior	Yes/No	-	Low *= No High**=Yes
4.7 Omnishopping behavior	0-7	3	Low* = 0-2,9 High**=3-7

* = 1

** = 2

Grouping				
DCEE Ind. total score	Frequency	Percent	M	Grouping
7	4	1.1	12	Low* = 7-10.9 Medium**=11-12.9 High***=13-14
8	14	4.0		
9	16	4.5		
10	38	10.6		
11	60	16.5		
12	82	22.7		
13	85	23.5		
14	61	17.1		
TOT	360	100		

*=1

**=2

***=3

APPENDIX 3 - Channel Content, Satisfaction, Purchase Intention and Brand Attitude

The Impact of Type of Channel Content on customer satisfaction, purchase intention and brand attitude			
	Hedonic Channel Content (CG1, TG1, TG3)	Utilitarian Channel Content (CG2, TG2, TG4)	ANOVA
Customer Satisfaction	M=4.86 SD=1.27	M=4.75 SD=1.18	$F(1,358)=.788$ $p>.05$
Purchase Intention	M=4.07 SD=1.48	M=4.08 SD=1.30	$F(1,358)=.011$ $p>.05$
Brand Attitude	M=5.11 SD=1.21	M=5.07 SD=1.11	$F(1,358)=.376$ $p>.05$

APPENDIX 4 - Direct effect of Digital Competence & E-Commerce Experience on Customer Satisfaction, Purchase Intention and Brand Attitude

