OMNICHANNEL SHOPPING PATTERNS IN THE CUSTOMER JOURNEY OF POSTGRADUATE AND MASTER STUDENTS IN THE CITIES OF MEDELLIN (COLOMBIA) AND MÜNSTER (GERMANY): AN EXPLORATORY STUDY

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Hereby I declare that I have developed and written the enclosed Bachelor Thesis completely by myself, and have not used sources or means without declaration in the text. Any thoughts from others or literal quotations are clearly marked. The Bachelor Thesis was not used in the same or in a similar version to achieve an academic grading or is being published elsewhere.

Medellín, 25.04.2016 **Janine Schulz (ID 299425)**

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

The purpose of this study was to explore the use of traditional and non-traditional sales channels by master and postgraduate students from Germany and Colombia in order to detect omnichannel shopping behavioral patterns in their customer journey.

This study used quantitative research methods to collect primary data via a self-administered web questionnaire from postgraduate students at the Pontifical Bolivarian University in the city of Medellin, Colombia, and from master students at the University of Applied Sciences in the city of Münster, Germany. Implementing bivariate descriptive statistics the survey results were analyzed and examined for common patterns and anomalies. The Statistical Package for Social Sciences (SPSS Version 20) was used for the exploratory data analysis process. In addition, secondary data was collected by way of reviewing documents from previous studies in order to identify relevant components for the subsequent research.

The results pointed to a strong presence of omnichannel shopping trends among German and Colombian master and postgraduate students. By means of the cross-cultural study, characteristics such as cross-channel behavior patterns, the use of multiple channels during the same purchase, the simultaneous use of different channels, as well as a frequent switching between channels, platforms and devices along the customer journey, and high expectations regarding a seamless customer experience were detected. Although these behaviors were slightly less apparent with the Colombian consumers, their relevance was clearly recognizable. Hence, due to the significance of this investigation problem, recommendations for future research concerning omnichannel consumer behavior were given.

Key Words:

Omnichannel; Consumer behavior; Customer journey, Cross-channel; Multi-channel; ROPO; DOROPO; Webrooming; Showrooming

GLOSSARY

Beacon technology	Beacons are small devices that enable more accurate location within a narrow range than GPS, cell tower triangulation and Wi-Fi proximity. Beacons transmit small amounts of data via Bluetooth Low Energy (BLE) up to 50 meters, and as a result are often used for indoor location technology (IT Wissen, 2016).
B2C	Business-to-consumer is the type of commerce transaction in which businesses sell products or services to consumers (Gabler Wirtschaftslexikon, 2016).
B2B	Business-to-business is a type of commerce transaction that is based on the exchange of products and services between businesses (Gabler Wirtschaftslexikon, 2016).
C2C	Consumer-to-consumer is a business model that facilitates the transaction of products or services between consumers (Gabler Wirtschaftslexikon, 2016).
DSL	Digital subscriber line is a family of technologies that are used to transmit digital data over telephone lines (IT Wissen, 2016).
GPS	The Global Positioning System (GPS) is a satellite-based navigation system made up of a network of 24 satellites placed into orbit by the U.S. Department of Defense (IT Wissen, 2016).
NFC	Near Field Communication is a standards-based, short-range wireless connectivity technology that enables convenient short-range communication between electronic devices (IT Wissen, 2016).
QR Code	A quick response code is a type of 2D bar code that is used to provide easy access to information through a smartphone (IT Wissen, 2016).

RFID	Radio frequency identification is a generic term for technologies that use radio waves to automatically identify people or objects by storing a serial number that identifies a person or object on a microchip that is attached to an antenna. The antenna enables the chip to transmit the identification information to a reader. The reader converts the radio waves reflected back from the RFID tag into digital information that can then be passed on to computers that can make use of it (IT Wissen, 2016).
UMTS	Universal Mobile Telecommunications Service is a third-generation (3G) broadband, packet-based transmission of text, digitized voice, video, and multimedia at data rates up to 2 megabits per second (Mbps) (IT Wissen, 2016).
WIFI	WIFI is the name of a wireless networking technology that uses radio waves to provide wireless high-speed Internet and network connections (IT Wissen, 2016).

1. INTRODUCTION

In recent years a new buzzword has entered the field of marketing: the so-called „omnichannel“ shopping behavior. Omnichannel is a comprehensive approach comprising all distribution channels and touchpoints, online and offline, customers may use to interact with a brand before, during, and after a purchase, while expecting a seamless transition between these channels along their path to purchase (Martínez, 2015, p. 317). Closely related to the spread of digital devices and online shopping, this phenomenon has increased in importance for marketers who intend to adapt to new consumer trends in order to guarantee a positive customer experience.

The omnichannel shopper moves along the consumer decision journey, a more complex and circular model of the purchase process, switching between the different channels and touchpoints– online and offline, traditional and non-traditional – without even noticing. As little research has been realized concerning this particular shopping pattern, this study sought to explore the phenomenon and gain new insight by carrying out a cross-cultural survey with master and postgraduate students in the cities of Medellin (Colombia) and Münster (Germany). This way, an international comparison of the modern consumer behavior concerning the use of multiple channels was possible in order to detect similarities and differences in the buying patterns of the particular samples and to draw general conclusions regarding the relevance of the omnichannel phenomenon for future research.

1.1. ANTECEDENTS

Omnichannel shopping has emerged as a further development of the better-known multi-and cross-channel consumer behavior, driven by the explosion of connectivity through digital devices and mobile technology (Aparicio & Zorrilla, 2015, p. 104). The changing consumer behavior has been examined by the Nielsen *Global E-Commerce Report* of August 2014, in which 30,000 online consumers in 60 countries were surveyed to reveal the most popular product categories for buying and browsing (Nielsen, 2014). Nielsen detect rising online purchase intentions as well as a growing use of mobile phones as online shopping devices and the occurrence of channel switching behavior, such as looking at products online before purchasing them in-store. Moreover, Nielsen explored in its Global Connected Commerce Survey via an online survey in 24 countries how consumers are using the Internet to make shopping decisions both in stores and online, examining what and where they buy and how they pay for goods and services (Nielsen, 2016).

To identify further relevant research on omnichannel consumer behavior, the scientific databases *EBSCOhost* and *Emerald Insight* were searched applying the following keywords: “omnichannel” or “omni-channel”, “omnichannel shopping”, “omnichannel behavior”, “omnichannel consumer”, and “omnichannel retail”. To assure inclusion of related studies it was also searched for the terms “multi-channel”, “cross-channel”, or “multi-channel shopping”, “cross-channel shopping”, as well as “consumer journey”, “customer journey”. Reference sections of articles identified in the search were used to locate additional articles. The initial searches were performed in July 2015 and repeated for new references in November 2015 and January 2016.

The concepts of multi-, cross-, and omnichannel retail

In the last years, several authors approached the new emerging concept of omnichannel retail within their studies. Although, most research in the past focused on multi- and cross-channel commerce and shopping behavior (Reardon & McCorkle, 2002; Chatterjee, 2010; Schoenbachler & Gordon, 2002; Heitz-Spahn, 2013), some studies including omnichannel aspects have also been published: Tesser (2002) portrayed, as part of the B2C (Business-to-consumer) multi-channel retail, integrated distribution systems in which traditional distribution elements are supported by new tools resulting from telecommunication innovations. For example, "click-and-mortar" businesses combine traditional retail forms with an online presence, achieving "virtual ubiquity" this way (Tesser, 2002, p. 99). The idea of a well-integrated multi-channel format can be considered a predecessor of the omnichannel concept and is described in more detail by Berman & Thelen (2004). According to the authors, such a retail strategy enables consumers to examine goods at one channel, buy them at another channel, and finally pick them up at a third channel, while providing them with consistent information across channels. Piercy (2012), in turn, labels this consumer habit as cross-channel shopping and addresses the positive and negative consequences resulting from this behavior through a survey with online customers of four companies.

Although the distinction between both concepts is rather blurred in literature, a study realized in 2011 by the ECC Handel in cooperation with the Hybris GmbH with 1007 German Internet users from 16 years upwards, addresses the changing consumer behavior from multi-channel to cross-channel and analyzes the cross-distribution channel information and buying behavior of consumers considering the most important distribution channels such as stationary stores, online-shops and print catalogs. In addition, the impact of smartphones, call centers and in-store terminals on the information and shopping behavior in other channels is examined (ECC Handel & Hybris GmbH, 2011). A typical cross-channel buying pattern, namely "click-and-

collect", is examined by Chatterjee (2010) who explores causes and consequences of "order online pick up in-store" shopping behavior. Both concepts, multi- and cross-channel shopping, are explained and clearly differentiated in the conceptual framework of this work.

Zorrilla describes those channel switching behaviors as a result of the new "unstoppable omnichannel phenomenon" and highlights the necessity of companies to adapt by integrating online commercialization and retail in a coherent way as she considers omnichannel a reality in consumer behavior (Zorrilla, 2015, pp. 104-109). Verhoef, Kannan, & Inman (2015), who observed a move from multi-channel to omnichannel retailing, acknowledged the research gap regarding studies which focus mainly on omnichannel shopping trends as a further development of the previous approaches. Thus, the authors discussed the development of the new concept, considering existing research in multi-channel retailing in order to provide an agenda for future research in this area. They plant specific research questions for a closer examination within an omnichannel focus concerning touchpoints and their performance, the shopping behavior across channels, and the retail mix across channels. Nevertheless, earlier, in September 2013, an Ipsos MORI consumer survey, commissioned by Deloitte for eBay, was conducted online about the topic "Omnichannel". 1,000 individuals between 16 and 75 years were questioned both in Great Britain and Germany regarding their general shopping and online behavior, including personal individual preferences, and the usage of different devices. Additionally, they were asked about two recent purchases – online and offline - within the same product category. Moreover, interviews with retailers in Germany and Great Britain were realized to identify how they evaluate opportunities related to omnichannel commerce and strategies. Main findings of the study were the growing use of different channels (online and offline channels, digital devices and mobile technology) during the buying process by consumers and the correlation of the use of various channels during a purchase and higher sales numbers. Furthermore, Deloitte found that omnichannel retail leads

to real growth in turnover and to an only limited extent of cannibalization of stationary sales (Deloitte, 2014). Similarly, Dorman (2013) outlines that brick-and-mortar retail is highly relevant in omni-channel retail, as well as a widely recognized brand with a strong online and physical presence. The study also suggests channel synergism as results show a positive correlation between online and in-store revenues.

International shopping behaviors

During August and September 2014, PwC administered a global survey to understand and compare consumer shopping behaviors and the use of different retail channels across 19 territories, conducting 19,068 online interviews (PwC, 2015). PwC discovered that consumers are developing their own approach to researching and purchasing, both online and in-store and that they want their shopping needs met in a way that minimizes uncertainty and inflexibility and maximizes efficiency, convenience, and pleasure. PwC identifies four disruptive forces for retail including the evolution of the store, mobile technology, social networks and demographic shifts. Moreover, they also detected "channel hopping" trends among the respondents, such as *webrooming* and *showrooming*.

From ROPO to DOROPO

At the end of 2010 Google had also explored channel switching behavior by means of 3750 online questionnaires in eight Latin-American countries and found that half of respondents follow the so-called ROPO trend, i.e. research a product online before purchasing it offline (Google, 2011). Experian Marketing Services in 2013 extended the observation of channel switching to another pre-purchase phase of the consumer journey, including the discovery stage in the ROPO concept, reshaping it to the DOROPO concept (Discover online, research online, purchase offline). Frasquet et al. (2015) postulate a even broader view, by identifying patterns in channel usage across the search, purchase and post-sales stages of shopping. The

study's findings show that segments with different usage patterns and motivations can be identified across the shopping process and that the drivers of channel usage are different depending on the stage of the buying process and the product category considered.

The impact of digital technology on shopping

The emergent omnichannel shopping trend is closely related to the increasing use of digital devices and mobile technology which enable consumers to perform activities along all stages of the customer journey whenever and wherever they want. There are several recent studies concerning the integration of digital devices and mobile technology in the consumer path to purchase and the resulting changes in shopping behavior of connected customers. The GfK interviewed in the course of their "Global GfK Survey" in summer 2014 over 25,000 consumers (aged 15 and older) in 23 countries who used their mobile phone within the last 30 days either online or face-to- face (F2F) about consumer's activities with mobile phones in stores (GfK, 2015). The *Salesforce Exact Target Marketing Cloud*'s 2014 Mobile Behavior Report also examines in more detail for what mobile devices are used by tracking data of 470 voluntary consumers for a month to explore how they used their smartphones and tablets to access the mobile web and mobile apps. In addition to the tracking of mobile behavior patterns they also combined data with users' own insights. As mobile devices and thus mobile applications form an important part of omnichannel retailing, Taylor and Levin (2014) examine the mobile app usage for purchasing and information-sharing activities analyzing survey data collected from customers of a major US retailer. New opportunities and challenges brought by smart mobile devices and social networks, as well as in-store technological solutions, directed toward an omnichannel approach, were identified by Piotrowicz and Cuthbertson (2014) via focus group discussions on the role of information technology in retail. The researchers detected several key issues such as the need for channel integration, the impact of mobile technologies, the growing role of social media, and the

changing role of brick-and-mortar stores, among others. Previously, Ernst & Young (2011) highlighted the implications of digital change for retailers as they are required today to employ digital channels in order to create a seamless and consistent engagement for their customers. Furthermore, the global "Connected Commerce" report, conducted by DigitasLBi in March 2015 in 17 countries, concerning multi-platform shopping, examines latest technology trends and consumer habits which led to a transformation of shopping behavior. Within the scope of this study 1,000 web users of each country aged 18-64 were asked about the ownership and usage of devices during all stages of the customer journey. Results show the direct impact of mobile use in-store on the purchasing process which can be considered as an omnichannel shopping trend due to the simultaneous implementation of channels during a purchase, as well as the influence by social media on both online and offline purchases (DigitasLBi, 2015). In July 2012, the McKinsey Global Institute assessed the economic impact of social technologies by examining the way social technologies are and will be used, and came to the conclusion that a third of consumer spending could be influenced by social shopping (McKinsey Global Institute, 2012).

Ericsson (2015) explores within its "Traffic and Market Report" from June 2012 the mobile evolution driven by the Internet and affordable smartphones, as well as following connected devices on the market. As the total number of mobile subscriptions globally and Internet coverage continues growing, Ericsson depicts changes in people's behavior as they demand connectivity anywhere and anytime. A similar conclusion reached Berman and Kesterson-Townes (2012) who detected global digital behavioral trends of consumers based on results by the fourth annual IBM Institute for Business Value digital consumer survey, which questioned over 3,800 consumers in six countries – China, France, Germany, Japan, the United Kingdom and the United States – to evaluate current and future digital content consumption behaviors. They state that consumers worldwide increasingly expect content on

demand, wherever they are, all the time and that "connected living" changes almost every aspect of our daily lives (Berman & Kesterson-Townes, 2012, p. 30). Nicholas, et al. (2003) also contribute to a characterization of the omnichannel consumer by sketching key attributes of the digital information consumer regarding their information seeking behavior in the digital interactive environment. Baik, Venkatesan, & Farris (2014) review the implications of the mobile technology for and the effect of user-generated content on the different stages of the consumer path to purchase. They conclude that mobile users use their devices "on the go" differently than those who are using devices at home or in the office and identified real-time and location-specific access to information and the ability to act on the information as the primary differentiators of the mobile medium from a desktop. Furthermore, results by another Deloitte study suggest a positive correlation of digital influence on stationary sales. The Germany-wide survey with more than 2,000 consumers was conducted in 2015 with the aim of illustrating how the digital device usage has influenced the consumer behavior in stationary retail (Deloitte Digital, 2015). On the other hand, Criteo analyzed the development of mobile commerce globally in the first half of 2015 as well as its relation to e-commerce sales. They also registered data about cross-device purchasing and compared the amount of retail transactions via smartphone and tablet (Criteo, 2015).

The consumer decision journey

As a result of this development, Court, Elzinga, Mulder, & Vetvik (2009) from McKinsey Quarterly, developed in 2009, examining the purchase decisions of almost 20,000 consumers across five industries and three continents, the *consumer decision journey* as a new and more sophisticated approach to understand and examine the shopping process of modern consumers compared to the traditional funnel model, which is unable to capture all possible touchpoints of well-informed consumers resulting from the explosion of digital channels and choices. Based on the customer's journey and consumers' search strategies in a multichannel

landscape during the various phases of a purchase, Van der Veen and Van Ossenbruggen (2015) propose a new model for companies to develop an effective multichannel strategy.

Based on the existing research, this study provides further insight in the area of omnichannel shopping using investigation results concerning multi- and cross-channel shopping behaviors, as well as the use of mobile devices during the consumer journey. It intends to propose new research questions for future investigation that examine in more depth the new emerging shopping trends in an omnichannel and digital context. Previous research has begun approaching the topic of omnichannel shopping by analyzing the use of mobile devices during the consumer journey and channel switching patterns. By now, most studies have focused on the two channel-hopping phenomena derived from omnichannel, *showrooming* and *webrooming*, the latter one also called the ROPO effect, as they create a special challenge both for stationary and online retailers (Sevitt & Samuel, 2013; Rapp, Baker, Bachrach, & Ogilvie, 2015; Kisseberth, 2014). The study by Experian Marketing Services about online and offline shopping conducts of the Spanish consumer in retail (Experian Marketing Services, 2013, p. 50), in turn, has developed research in directing the investigation of using different channels toward covering the whole customer journey from discovery till after-sales evaluation, renaming the ROPO trend to DOROPO (Discovery Online, Research Online, Purchase Offline). Nevertheless, little research has been made across all stages of the shopping cycle including channels used for evaluating the own shopping experience (Frasquet, Mollá, & Ruiz, 2015). Hence, this study bases on the channel switching patterns, detected by prior investigation, but also includes further activities in the pre- and post-purchase phase in order to explore the omnichannel shopping behavior along the whole consumer path to purchase. In addition, departing from studies measuring the impact of mobile technology on the shopping behavior, this work explores for which purchase-related activities consumers use their mobile device and if they also do so while in-store to detect

simultaneous usage pattern of different channels. Moreover, while past studies conducted research in only one country or separately in various countries, this investigation compares the shopping behavior of consumers from two different countries in order to detect common conducts as well as differences.

1.2. RESEARCH PROBLEM

The digital environment has changed the way consumers and businesses interact. Reduced transaction costs and a facilitated access to information have created new options for buyers who can choose from a growing variety of distribution channels, platforms and media to proceed along their path to purchase. The recently emerged concept of *omnichannel* shopping comprises the altered purchase behavior patterns of connected consumers, i.e. consumer with access to digital devices and the Internet. As a result of the exponential growth of technological innovations the retail channel landscape continues growing in complexity as new digital channels and platforms evolve. Especially, with the establishment of the Internet as a distribution channel in business and in the mind of the consumer as a possibility for purchase and sale, single-channel and traditional multi-channel retail approaches were replaced by a new form of multi-channel commerce which now includes both offline and online channels and which is perceived as the predecessor of omnichannel retail. Although e-commerce still represents a small part of worldwide retail sales, it continues registering considerable growth rates. According to the market research firm eMarketer, in 2014 worldwide retail e-commerce sales amounted to $1.3 trillion, constituting 5.9% of total retail sales that year and an increase of 22.2% compared to the year before. eMarketer prognoses a growth in worldwide retail e-commerce sales up to $2.489 trillion by 2018, making up 8.8% of total retail sales in 2018 (eMarketer, 2014). This development is based on the rapid growing Internet access worldwide. Between 2000 and 2015, global Internet penetration grew from 6.5% to 43% (ICT Data and Statistics Division, 2015). The International Telecommunication Union (ITU) estimates that by the end of 2015 more than 3.17 billion people worldwide were using the Internet, up from 394 million in 2000. The majority of global internet users are located in Asia, with Europe following in second place, and Latin America / Caribbean in third place (Internet World Stats, 2015).

Furthermore, globally 92% of the respondents go online to access products and services and to make purchases (A.T. Kearney, 2014). The share of online shoppers of global Internet users is estimated to increase from 38% in 2011 to 47.3% in 2018 (eMarketer, 2016). According to data by DigitasLBi (2015), 75% of the people asked had purchased an item online the last 30 days. However, despite e-commerce's rapid growth in the past, it has not superseded traditional sales channels, such as the brick-and-mortar store (businesses with a physical presence). More than one in three (36%) of PwC's global sample goes to a physical store at least weekly, whereas 20% shop online via PC weekly (PwC, 2015, p. 1).

Online shopping and the user-friendly web have also led to channel switching patterns such as *showrooming* and *webrooming*. 68% of PwC's global sample indicated having browsed products at a store but that they decided to purchase them online (showrooming), whereas 70% stated that they have done the opposite, called "reverse showrooming" or "webrooming"; that is, having browsed products online but decided to purchase them in-store. Other forms of cross-channel shopping, which combine benefits of online shopping like wealth of choice in selection and of stationary retail, have gained in popularity, such as *click-and-collect*: the customer orders a product online but picks it up in a local store (Deloitte, 2015). With the rise in alternatives for consumers, they increasingly settle for the most convenient one according to their situation and purpose.

A new form of commerce, closely related to e-commerce, rises even more possibilities for convenient shopping: mobile commerce. According to Criteo's Q1 2015 State of Mobile Commerce Report, in average already 34% of global e-commerce transactions are mobile and expected to continue increasing (Criteo, Q1 2015). This development is driven by the high penetration of mobile phones, mobile broadband subscriptions and, in recent years, also by the spread of smart mobile devices with Internet access on a global scale. Currently there are almost as many mobile phone subscriptions as people in the world; global mobile telephone

subscriptions increased from 2.2 billion in 2005 to 7.4 billion in 2015, which corresponds to a global penetration rate of 97% (Ericsson, 2015, p.2). In addition, information technology and devices have increased in affordability across countries (ITU, 2015). Smartphones make up the majority of mobile broadband devices today and subscriptions are expected to almost double by 2021; in Q3 2015, smartphones accounted for almost 75% of all mobile phones sold and the number of mobile broadband subscriptions is growing globally by around 25% each year (Ericsson, 2015, p. 141). Global smartphone penetration per capita is estimated to rise to 36.5% by 2018 (eMarketer, 2016). 77% of smartphone users use their smartphone to connect to the Internet at least once a day, found (DigitasLBi, 2015). However, tablet user penetration is rising as well; while in 2014 11.8% of the global population used a tablet, this number is expected to increase to 19.9% by 2019 (eMarketer, 2015). GlobalWebIndex found in their global study that more than a third of adult online users bought products via mobile at the end of 2014. In particular, young Internet users are driving the growth of m-commerce with four in ten aged 16 – 24 shopping online via mobile. A large majority of m-commerce buyers conduct multi-device and cross-device purchasing behavior (Criteo, Q1 2015); according to the report by DigitasLBi (2015), half of the consumers shop online via a laptop, 28% via smartphone and 20% via tablet. Especially emerging markets are embracing mobile commerce; for example, in Latin-America 38% had searched for a product or service to buy online via their mobile device and 27% had also purchased a product online on their mobile (GlobalWebIndex, Q1 2015).

In Europe the predominant uses of mobile devices during a purchase includes comparing prices (76.9%), reading product reviews (75.9%), checking retailers' sites (73%), and researching products, offers and availability (Centre for Retail Research, 2015). Mobile has redefined consumer's experiences along their path to purchase, while creating new business opportunities and linking the digital and physical world (GSMA, 2015). "Shoppers today no

longer simply go to the nearest store; they grab the nearest digital device", explain Nielsen (2016). Mobile devices are also used within stores to check items and purchase goods (Centre for Retail Research, 2015). 85% of smartphone owners have used their mobile phone in-store in 2015 (DigitasLBi, 2015). Results of the Global GfK Survey show that 40% of mobile users compare prices while in-store via a mobile phone or contact friend or family for advice. Other activities via mobile phones in-store are taking pictures of products (36%), scanning barcodes or QR codes (28%) and buying products through a website (22%). Furthermore, smartphones are adopted for the check-out process in-store as they comprise paying capabilities in form of a "mobile wallet". According to (DigitasLBi, 2015), 62% of smartphone users would be ready to use their device to pay in-store. Overall, 55% of smartphone users think the Internet and smartphones have changed the way they shop in-store (DigitasLBi, 2015). Nielsen (2016, p. 3) sums up this development in their "Connected Commerce" report:

> And it's not just purchasing habits that are going digital: The whole retail experience is changing. Today's shoppers are incorporating digital touch points along the entire path to purchase, from reviewing products online at home to using smartphones as personal shopping assistants in the store. Omnichannel shoppers seamlessly switch between on and offline channels with ease.

Due to the internet and the wide distribution of smartphones and tablets, many customers have already begun thinking and consuming in cross-channel concepts (BITKOM, 2015, p. 3). Another aspect of the omnichannel trend is the integration of social media in the path to purchase. Social media is influencing a growing number of purchases on- and offline (DigitasLBi, 2015, p. 20). 35% of social network users indicate buying more products of brands in-store they follow on social media and 28% have also bought an item directly from a social media platform in the last 30 days (DigitasLBi, 2015, p. 23).

The explosion of connectivity and digital channel options which supplement the traditional retail channel landscape, have led to the omnichannel trend in consumer behavior, which is

considered as an evolution of multi-channel retail (Piotrowicz & Cuthbertson, 2014, p.6; Zorrilla, 2015, pp. 104-109). Whereas the multi-channel concept implies a division between physical and online distribution, omnichannel refers to customers moving freely between online (e.g. webshop) and offline channels (e.g. physical store), as well as between platforms and media used for purchase-related activities, such as mobile devices, all within a single transaction process (Piotrowicz & Cuthbertson, 2014, p.6). "Traditional" online and physical channels are extended by adding mobile and social media channels, which affect consumer behavior along all stages of the path to purchase. Based on key findings from the Deloitte report, eBay portrays the omnichannel consumer and argues that omnichannel is reality, as 33% of the survey respondents had recently made an omnichannel purchase, defined as a purchase which combines online and offline channels. 31% of consumers visited a store prior to making a recent purchase online and 34% used online channels before or during a recent purchase in-store (Deloitte, 2014). This development toward omnichannel shopping, with customer regarding the street and online shopping as complementary, choosing the channel, medium or platform to buy from which appears most convenient for their purpose or situation, confronts retailers with new challenges and opportunities. The digitalization empowers connected consumers by making it easier for them to access information and compare product details and by increasing the range of options for shopping (Deloitte, 2014). Deloitte estimates that omnichannel retailing has the potential to reshape retail markets as the new trends enable each channel to serve consumers at any point of their shopping journey (Deloitte, 2014, p. 10). Moreover, findings of the omnichannel consumer survey by Deloitte (2014) suggest that omnichannel consumers in average spend more than consumers who only use one channel during a purchase. According to a report by Accenture and Hybris (2014), customer expectations and behavior mandate the need for omnichannel commerce, as using multiple channels (web, mobile, social, store) as part of the buying decision is now standard; customers

do not think in channels, but change between channels according to situation and need and thus expect flexibility and transparency in the transition (Accenture & Hybris, 2014, p. 2). Furthermore, they only know brands and expect consistent communication across all channels.

In addition, mobile adoption has disrupted the marketplace resulting in a non-linear purchase path, which involves multiple touchpoints at any time and everywhere. Consequently, organizations need to deliver a seamless integrated omnichannel shopping experience across all channels, exploiting the full potential of the digital revolution, in order to stay competitive. In particular, taking into account the exponential development of technological innovations, which in turn affects consumer behavior, retailers need to react fast to keep up with the pace. Hence, understanding the changes in the buying behavior of connected consumers, who are becoming less and less predictable, is essential for online, offline and multichannel retailers in order to fulfill consumer expectations and adapt their marketing strategy. However, only few retailers already implemented omnichannel strategies (Bovensiepen, Schmaus, & Maekelburger, 2015, para. 6). As some still perceive showrooming as a threat to stationary sales and fear the cannibalizaton effect of online shopping, omnichannel retailers stop thinking in silos and considering channels as competitors, in favor of implementing an integrated view of the whole distribution system. “In a world where nearly everyone is always online, there is no offline. So it is not about the digital business, it is just business. It’s not about eCommerce, it is simply commerce”, explain Deloitte Digital (2015, p. 4).

The customer today can choose from a variety of information and shopping channels for different purposes: researching information or prices, trying the product, purchasing, service and support or returning the product. Moreover, the next information offer is only one click on the smartphone away and everything can be commented, evaluated, compared and reviewed. As a result, the research and decision path of customers till the purchase is

becoming more sophisticated. For example, a customer might investigate a product on a website for product tests, order the item in an online-shop, let it deliver to their office, calling the hotline because of a problem and finally, returns the item in a local retailer's store. In this example the same customer has contact to the company at four different touchpoints during a single purchase. This development does not only result in well-informed customers entering stores with a clear purchase intention, but also makes certain factors of the buying process more important, long before the actual purchase, such as product reviews by other consumers or recommendations by other users in social networks. Consequently, a new model of the buying process has evolved to meet the higher complexity of the decision process, referred to as the omnichannel consumer decision journey (Deloitte, 2014, p. 9; Court, Elzinga, Mulder, & Vetvik, 2009). Every retailer needs to analyze individually the shopping journey of its customers which can vary to a large extent. In order to convince customers and accompany them along their journey, retailers need to identify most important touchpoints of the consumer with the brand. Nielsen (2016, p. 4) describes the modern situation for many retailers as follows:

> Consumers interact with brands across both digital and physical channels, and increasingly, they don't make a distinction between the two. Omni-channel is the new reality, and retailers need to think differently. Traditional notions of 'trip,' 'shopping experience' and 'fulfillment and delivery' have been redefined. Today's winning brands use a combination of on and offline strategies to not only help consumers make more informed decisions, but to also add value throughout the entire shopping experience—wherever and whenever that happens to be.

The most interesting target group for this investigation is the generation of the so-called "digital natives", who are as evidence suggests more probable to follow omnichannel patterns as they have grown up with technological innovations, such as the Internet and mobile devices (PwC, 2016). Hence, within the scope of this research a cross-cultural survey was carried out

at two universities in two different countries: the University of Applied Sciences in Münster (Germany), and the Pontifical Bolivarian University in Medellin (Colombia). Master and postgraduate students of these universities were questioned about their shopping behavior with the aim of detecting omnichannel shopping patterns. These students are all considered "digital natives" as their age ranges between 20 and 30 years. In recent future they will become an interesting consumer group for organizations as they leave university completing their master program and start generating income. They play a more relevant role for companies planning on investing in digital marketing strategies and the integration of multiple channels due to an apparent higher use of digital devices and the Internet as by other population groups (PwC, 2016; Prensky, 2004). As digital natives are becoming an increasingly important consumer group, marketers are required to consider their specific buying patterns. The sample groups from two different nationalities are also of special interest, as Germany is considered an economically and technologically highly developed country, whereas Colombia is considered less economically and technologically developed. This way, the shopping behavior regarding the use of digital devices and multiple channels can be compared between countries of different technological and economical standards.

Due to the considerable impact the omnichannel trend has on the retail landscape and consumer behavior, this study intends to promote further research in this area, granting a basis to build on and offering a new perspective on the stated problem.

1.3. JUSTIFICATION

The purpose of this cross-cultural study was to explore the recently emerged shopping trend called *omnichannel* by examining buying patterns of modern consumers with regard to the usage of multiple channels, platforms and digital devices along the customer journey. In order to so, the shopping behavior of master students from the University of Applied Sciences in Münster (Germany) and of postgraduate students from the Pontifical Bolivarian University in Medellin (Colombia) was compared by means of an online survey regarding the use of multiple channels and devices along their customer journey in order to detect omnichannel buying patterns. This empirical research aimed at detecting common patterns, as well as differences in the consumer behavior of modern consumers from Germany and Colombia in order to develop hypotheses and derive research questions on which future investigation can be built on. Hence, this study implemented exploratory data analysis tools in order to gain deeper insight into the problem. Based on results obtained through the online survey and general findings, this study sought to detect relevant variables, as well as relations between these variables, and develop possible hypotheses to be tested in greater depth and to a larger extent by following investigation. The implemented questionnaire was derived from past research and literature related to omnichannel shopping patterns and had been extended according to the specific purposes of this investigation. In addition, this work intended to give suggestions for future research on the topic.

Based on an extent review of previous studies and recent literature, the current state of research was presented and the concept of omnichannel shopping specified in more detail. While most research in the past focused on multi-channel and cross-channel approaches (Reardon & McCorkle, 2002; Chatterjee, 2010; Schoenbachler & Gordon, 2002; Heitz-Spahn, 2013), there has only been little research on their evolution toward an omnichannel consumer type (Verhoef, Kannan, & Inman, 2015). Furthermore, the terms multi-, cross-, and

omnichannel have been used in an indistinct or interchangeable way in academic literature (PwC, 2011), which may lead to confusion and impedes a concise analysis of the concepts. Thus, due to the blurred definition of the term and variations in its interpretation, this study intended to identify key elements of omnichannel consumer behavior, while differentiating it from similar preceding approaches.

This study, furthermore, sought to advance research by introducing a new perspective of the omnichannel trend, exploring the use of multiple channels and touchpoints during all phases along the customer journey. Previous studies examined the "channel hopping" between the phase of information research and the actual purchase (Deloitte, 2014; PwC, 2015) or extended investigation by integrating the discovery phase, i.e. exploring where consumers discovered, researched and purchased a product regarding the use of traditional and non-traditional channels (Experian Marketing Services, 2013). However, this study suggests a more integrative view of the whole consumer journey including the four phases *discovery, research, purchase*, and *evaluation*, by asking consumers also about the channels they use or have used for commenting on their shopping experience. It suggests that the after-sales phase forms an important part of decision making process, considered as a cycle, and, thus, needs to be integrated in the exploration of omnichannel shopping behavior, comprising not only "all channels" but also every stage the customer goes through. Given the exploratory character of this work, it had the objective of leading to further in-depth research by providing new insights and ideas, while intending to advance research by filling a gap in scientific literature.

Results of this work should help both academics and businesses more readily understand the components and drivers of omnichannel shopping and the modified consumer behavior in the digital era. The study provides a broader understanding of the changes the retail landscape has undergone in recent years regarding the emergence of new digital channels, resulting in a growing complexity and altered shopping behavior of connected consumers. In the past,

marketing literature considered primarily the traditional buying process (Kotler & Armstrong, Principles of Marketing, 2010), which does not meet the requirements of a multi-channel and multi-device digital era. A more appropriate non-linear approach is presented, the consumer decision journey, which seeks to consider consumer path to purchase in its complexity and serve B2C organizations to better track and understand their customers' decision making (Court, Elzinga, Mulder, & Vetvik, 2009). Based on recent literature, it is portrayed as an appropriate model for marketers to acknowledge changes in the behavior of their customers driven by technological innovations and multiplying options concerning new sales channels and platforms (Deloitte, 2014). The study of consumer behavior is vital to the development of appropriate marketing strategies and selecting the adequate distribution and communication channels with customers aiming at a successful business model. Through exploring and thus gaining more insight into the expectations and channel usage of customers, the findings enable retailers to draw conclusions in order to adapt their marketing strategy to the fast-changing environment and develop new appropriate approaches for reaching modern customers.

This study provides insight into the current situation regarding the preferred distribution channels and intends to detect how they are used, e.g. simultaneously, according to product category. This research is of importance in the modern era due to the increasing complexity in channel options, platforms and devices for consumers driven by the exponentially growing technological innovations (Internet, m-commerce, etc.) which have an inmediate impact on the buying behavior. As consumers increasingly expect consistent communication and a seamless shopping experience (Ernst & Young, 2011; The Economist Intelligence Unit, 2015; Minkara, 2013) and shop however is most practical, whether in-store, online or via mobile (Karolefski, 2016), companies are challenged with keeping up with these developments and to embrace new technologies and tools to satisfy their customers' needs. As this trend is likely to

establish on a wider base and develop even further with new technologies emerging, altering buying patterns and consumer thinking, it is necessary to examine omnichannel in more detail to forecast future developments on time. Hence, this study contributes to the field of marketing as a circular variante and thus further development of the traditional buying process is introduced, taking digital shopping trends into account. Thus, both, companies and academics, benefit from the deeper insight into the omnichannel phenomenon presented by this study which suggests a different perspective on the problem, extending research and providing the basis for a more in-depth analysis.

This study is particularly relevant as it intends to explore buying patterns of postgraduate and master students, which in the majority can be associated to the generation of digital natives which adopts new technologies especially fast (Prensky, 2001). According to a study by PwC, in near future this generation constitutes one of the most interesting consumer groups for retailers (PwC, 2014).

Moreover, not only is the number of scientific studies on the omnichannel concept constrained, past studies also found that rarely any B2C organization has implemented real omnichannel solutions yet for granting their customers a seamless shopping experience (The Economist Intelligence Unit, 2015, p. 3), despite the general opinion that this strategy has already become an imperative for companies to stay competitive (Accenture & Hybris, 2014; Zorrilla, 2015). As a consequence, this study seeks to rise awareness for this specific problem and promote further research in this area.

1.4. RESEARCH QUESTIONS

The main research question of this investigation is:

Do postgraduate and master students in the cities of Medellin and Münster follow omnichannel shopping patterns along their path to purchase?

In order to explore this investigation problem, this study sought to answer the following research questions:

- Of which components does the concept of omnichannel shopping consist according to existing literature?
- Which and how many channels do master students from Germany and postgraduate students from Colombia use during their customer journeys?
- Do they use different traditional and digital touchpoints along one particular path to purchase?
- Do they switch between the channels during their shopping journey?
- Do they use different channels / platforms / touchpoints simultaneously while shopping?
- How does the shopping behavior of master students in Münster differ from that of master and postgraduate students in Medellin?
- How do master students use their mobile device(s) for shopping?
- Do master and postgraduate students in Medellin and Münster follow multi- and cross-channel buying patterns?
- Which elements related to omnichannel retailing are perceived as important by the sample in order to have a positive customer experience?

1.5. OBJECTIVES

1.5.1. General objective

Comparing the shopping behavior of postgraduate students at the Pontifical Bolivarian University in Medellín (Colombia) and master students at the University of Applied Sciences in Münster (Germany) regarding the use of traditional and non-traditional sales channels in order to detect omnichannel behavior patterns in their customer journey.

1.5.2. Specific objectives

- Characterize omnichannel shopping trends based on existing definitions of these conducts by current literature.
- Explore the use of mobile devices and multiple channels along the path to purchase from German and Colombian students by means of a cross-cultural survey.
- Identify relevant aspects related to omnichannel business strategies which generate a positive shopping experience by exploring the expectations of the samples.
- Verify the relevance of the omnichannel phenomenon for additional investigation and formulate new hypotheses and research questions for possible future research based on the survey results.

1.6. PROCEDURE AND STRUCTURE OF THE WORK

In order to reach the defined objectives and answer the formulated research questions, an extent literature review followed by a cross-cultural survey were carried out. First, existing studies about the use of multiple channels and platforms in the buying process were explored in order to identify characteristics of the omnichannel shopping behavior and define variables which were analyzed within the course of an exploratory study. As a next step, a self-administered online questionnaire in German and Spanish was used to collect primary data from master and postgraduate students in the cities of Münster and Medellin. By implementing exploratory data analysis techniques the data was examined in SPSS for common patterns and anomalies in the shopping behavior of the samples in order to detect omnichannel trends and to gain new insights into the phenomenon.

2. CONCEPTUAL FRAMEWORK

2.1. FUNDAMENTALS OF OMNICHANNEL RETAIL

2.1.1. Introduction

In order to approach the investigation problem of the omnichannel consumer behavior in the digital era, the term *omnichannel* needs to be defined and distinguished from the concepts of multi- and cross-channel commerce. Hence, this chapter first provides an overview of the concept of distribution in marketing concerning sales channels and their growth over the last decades. Subsequently, the impact of digitalization on distribution in terms of the Internet, e-commerce and mobile technology is portrayed as it has led to an "explosion" of distribution channels and has paved the way for retail strategies involving multiple channels. Finally, the evolution from single-channel to multi-, cross-, and omnichannel commerce is outlined. This chapter serves as the basis for a later discussion about changing shopping behaviors with respect to the use of multiple and digital channels during the path to purchase.

2.1.2. The term *omnichannel*

The term *omnichannel* consists of two parts – the Latin prefix "omni", which means *all* or *every,* and the word "channel". The term „channel" refers to a retailer's distribution channel, i.e. the path through which end consumers can acquire retailer's merchandise (Heinemann, 2011, p. 18-19). As defined by Coughlan (2006, p. 2) the distribution channel (or marketing channel) is a "set of interdependent organizations involved in the process of making a product or service available for use or consumption." Thus, according to Stolz (2013, p. 4) the channel can be considered as a transaction process which implies a communicative as well as a marketing-oriented component. Hence, the concept of omnichannel does not only refer to the use of different sales channels but to the interaction across every possible touchpoint of consumers with brands, before, during, and after the transaction. For the purpose of this work,

the term channel is defined as a distribution channel which assumes distributive as well as communicative tasks.

2.1.3. Differentiation between multi-channel, cross-channel and omnichannel

Omnichannel, similar to multi- and cross-channel, bases on the use of multiple channels for the selling process – either by the provider, who is granting their customers a variety of sales channels to choose from, or from the perspective of the customer, the use of different channels along the buying decision journey (Nichols, 2015). The similarities in these concepts have led to an indistinct usage of the terms multi-channel, cross-channel and omnichannel retailing in academic literature, as well as to a wide range of definitions. As the conceptual boundaries of these terms are blurred (Beck & Rygl, 2015, p. 171), it is necessary to clearly differentiate the three concepts and define the term omnichannel for the purpose of this investigation.

- **Multi-channel**

Michelis (2015, p. 270) describes **multi-channel distribution** as the set-up of parallel distribution methods with the aim of addressing a wider spectrum of potential customers. Hence, distribution channels remain logistically, commercially and organizationally separated entities. *Multi*, in this case, means that retailers use at least two different distribution channels, through which they offer merchandise to end customers (Nichols, 2015). This approach does not take into account the level of integration of these channels (Heinemann, 2011, p. 18). Multi-channel retail usually involves the deployment of stationary and non-stationary channels next to each other. Even though multi-channel selling is not a new phenomenon, as retailers have already been marketing their merchandise for a long time parallely via different channels, for instance, through stationary stores and catalogs, the Internet and online commerce has caused a shift from traditional multi-channel systems to modern multi-channel

commerce (Heinemann, 2011, p. 1). Multi-channel "came to the fore at the rise of the web", argues Bloomberg (2014, para. 7), with retailers beginning to add web-based e-commerce to in-store and catalog channels. In summary, multi-channel retail exclusively describes the combination of stationary commerce with e-commerce (including mobile commerce), or rather of online and offline distribution channels provided by the supplier, which a customer can choose from depending on the purpose (Heinemann, 2011, p. 19).

- **Cross-channel**

In contrast to multi-channel, which refers to the use of different sales channels for different purposes, **cross-channel** strategies exploit the opportunities created by technology for cross-channel synergies, for example, in-store web kiosks and the combination of online ordering with express pick up (Wallace, Giese, & Johnson, 2004, p. 251). Hence, cross-channel is widely considered as an evolution of multi-channel selling, as it comprises the close linking of the different channels offered by the provider. Whereas multi-channel solely describes the parallel distribution via multiple channels in order to reach different customer segments, in a cross-channel approach the channels are connected, offering consumers the possibility to move and purchase across different channels. In cross-channel, for example, a customer is able to investigate a product in-store and purchase it in a web shop. Moreover, customers may also order the merchandise online and pick it up at a local store (click-and-collect) (Jiresch, 2015, p. 62). Hence, this aspect should be highlighted conceptually with the term "cross" in order to emphasize the significance of integrated multi-channel retailing systems, and to differentiate it from traditional multi-channel retailing this way (Rittinger, 2014, p. 18).

- **Omnichannel**

As an evolution of the two previously defined multiple channel retailing types, the **omnichannel** concept was first introduced to the marketing world in 2010 (IDC Retail

Insights, 2010). Similar to the cross-channel approach, omnichannel describes a shopping experience that extends beyond multi-channel commerce; it refers to an ideal shopping experience on all platforms, from traditional brick-and-mortars to the digital world of social media and online shopping (Nichols, 2015). The aim of omnichannel retailing is to create a seamless retail world, where customers can shop across channels, anywhere and at any time (Beck & Rygl, 2015, p. 170). A great part of modern consumers do not limit themselves to one concrete channel to realize a purchase, but rather use a combination of channels which appear them most convenient (Martínez, 2015, p. 317). For instance, they might want to recollect information on a brand's website (online), buy in a brick-and-mortar store (offline), receive the product at home, change the product or return it in another physical store (offline) and receive the check on their smartphone (online). This "new consumer" uses the available channels as it was only one (Martínez, 2015, p. 317). In literature both terms, cross- and omnichannel, are sometimes used as synonyms, arguing that both imply the same approach. Jones (2015, p. 77) labels cross-channel and omnichannel as two buzzwords which follow the same thinking of a coherent and joined up customer experience without any disconnects; customers shall perceive that they are dealing with the same retailer across all channels and formats. He states that the underlying concept of both terms is a seamless customer journey where each channel knows what the customer did on the previous one. Bloomberg (2014, para. 7), however, comments on forbes.com the "rise of omnichannel marketing", arguing that omnichannel is not only a new buzzword which describes the same ideas as behind previous concepts, but that it rather "identifies a fundamental trend in today's digital world". According to Bloomberg (2014, para. 7), omnichannel does not only describe the adding of further channels, such as mobile and social media, to the marketing mix like multichannel did, but refers to the interconnectedness among touchpoints. From the customer's perspective, this increasing integration of all channels "blurs the distinction among channels" (Bloomberg,

2014, para. 7). In particular the ongoing digitalization of almost every part of our lives and thus also of the shopping experience, has been the driving force of this development, as Jones (2015, p. 77) exemplifies:

> Omnichannel describes a customer purchasing experience which might include searching from a PC, reading reviews on a smartphone, getting recommendations from friends via Facebook on a tablet, adding to cart on smartphone, and placing an order at a kiosk in a store, tracking its progress on a tablet, and then writing a review on a PC again.

According to Rigby (2011, para. 9), digital retailing is "quickly morphing into something so different that it requires a new name". Omnichannel is a more suitable term for reflecting the enormous possibilities regarding the channels available for retailers to interact with customers today, such as websites, physical stores, direct mail and catalogs, call centers, social media, mobile devices, gaming consoles, televisions, and so on. "Whereas multichannel implies a division between the physical and online channels, the omnichannel shopper moves freely between the online (PC), mobile devices, and physical store within a single transaction process", state Piotrowicz & Cuthbertson (2014, p. 2). Omnichannel shopping involves customers taking out their smartphone inside of a store to scan a barcode, check out product reviews or compare providers and prices in real-time (Bloomberg, 2014, para. 2). The omnichannel approach thus takes into account digital consumer trends of buyers who are not only enabled by mobile technology to rapidly switch between channels, but also to use channels simultaneously (Pophal, 2015, p. 1). In an omnichannel context, only the full integration of both worlds – the physical and the virtual – generates an integral shopping experience which satisfies the customers (Zorrilla, 2015, p. 129). Hence, omnichannel can be defined as "a multichannel approach to sales that seeks to provide the customer with a

seamless shopping experience whether the customer is shopping online from a desktop or mobile device, by telephone or in a bricks and mortar store" (Rouse, 2014, para. 1).

Another difference between the omnichannel approach and its predecessors is that it bases on the customer's point of view. Customers do not think of their shopping experience in terms of channels, but shop whenever and wherever it is most convenient for them, switching between channels unconsciously (Zorrilla, 2015, p. 127). As the holistic view of customer data provides insight into the consumer journey across channels, it allows for a cohesive and customer-centric approach, which distinguishes omnichannel retail from cross- and multichannel marketing (Simpson, 2015, para. 6). "When you think about cross-channel you're thinking from the perspective of those doing the marketing. Customers don't care about what channel they're using; they see it all as the same", says John Faris, from the digital agency Red Door Interactive (Simpson, 2015, para. 8). In contrast, as marketers follow an omnichannel approach, they put the customer at the center of their distribution strategy instead of thinking in silos (Pophal, 2015, p. 1). Moreover, Bloomberg (2014, para. 9) underlines the benefit of implementing an omnichannel strategy as it eliminates the so-called "channel conflict", which describes the effect that sales generated through a new distribution channel (e.g. online shop) increase at the expense of sales via a more traditional channel (e.g. physical store). He explains, that from the customer's perspective, "there is only a single, technology-enabled channel that brings together all touchpoints" (Bloomberg, 2014, para 9). The following figure (*Figure 1*) visualizes the differences between the explained concepts:

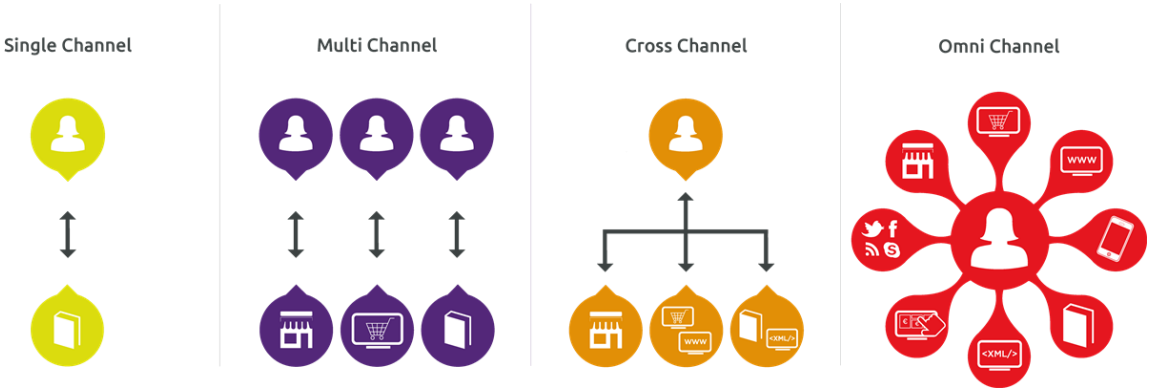

Figure 1. From single-channel to omni-channel. Retrieved from Backbone Company 2016.

As presented in the image, omnichannel can be imagined as a fusion of the individual distribution channels to touchpoints in a joint shopping environment, which surrounds the consumer. The buyer has access to the whole inventory and enjoys a consistent and personalized shopping experience, no matter where they begin, make or complete a purchase.

To understand in more depth the omnichannel concept, the following section examines the basics of distribution in marketing, portraying first the different types of traditional sales channels. Subsequently, the Internet as a new distribution channel as well as the resulting expansion of the retail landscape, involving mobile commerce and other forms of digital touchpoints are introduced, as they represent drivers of the further development from multi-channel to omnichannel retail.

2.1.4. The concept of distribution in marketing

2.1.4.1. Introduction

This chapter gives an overview of the concept of distribution in the marketing field, focusing on the distribution channel in business-to-consumer transactions as a key element. As omnichannel shopping describes new ways of implementing multiple sales channels along the customer journey, this section, thus, lays the foundation for further investigation of this buying behavior of modern consumers. In order to subsequently outline the development of the multi-channel retail landscape as a consequence of the ongoing digitalization of our lives,

this chapter aims to provide a basic description of the area of distribution, focusing on the major traditional channels up to now.

2.1.4.2. Distribution as a marketing instrument

Distribution forms an integral part of the "Marketing Mix", a model coceptualized by E. Jerome McCarthy in 1960, which comprises four marketing instruments, the so-called "four Ps*": Product, Price, Promotion* and *Place* (Blythe, 2009, p. 130). These tactical marketing tools are "blended into an integrated marketing program in order to deliver the intended value to target customers" (Kotler & Armstrong, 2012, p. 52). Place or distribution comprises all company activities that make a product available to consumers (Kotler & Armstrong, 2012, p. 52). "Place is the location where the exchange takes place", explains Blythe (2009, p. 131). In consumer markets, the majority of retail sales still happen in the physical world, despite the high growth rates of e-commerce (PwC, 2015, p. 1). However, place also refers to mail order catalog, telephone call center, or an online marketplace. The action field of distribution constitutes the framework for this investigation as it involves decisions taken by retailers with respect to the implementation of different marketing channels, which in turn allow for an omnichannel purchase process. The following sections provides information on the area of distribution and its function, as well as the structure of distribution channels, followed by a description of the currently most used sales channels in the physical world.

2.1.4.3. Definition and functions

Pando (2015, p. 21) describes commercial distribution as the marketing instrument which relates the production with consume ensuring that the product is made available for the final consumer in the desired quantity, in the moment when they need it and in the place where they want to acquire it. Hence, the main aim of distribution policy is to guarantee end-customers an adequate availability of the offer (Spiller, 2010, p. 236). Therefore, distribution seeks to anwer the questions: "To whom and with which means shall products be sold, or

rather, brought to the customer?" (Spiller, 2010, p. 193). Finding an adequate solution to this complex problem is decisive for the success of a company, since "customers want the product and service to be as conveniently available as possible" (Kotler & Armstrong, 2012, p. 53). Within the scope of distribution, companies make strategic decisions in terms of the design and choice of channels, assortments, location and dimension of points of sale, inventories, transportation and logistics (Kotler & Armstrong, 2012, p. 52; Pando, 2015, p. 30). According to Pando (2015, p. 22), this variable needs to be considered in correlation to the other components of the marketing mix, as it affects the image of a company's product; its consistency with the rest of the marketing policies is necessary to build a trustworthy and coherent image. Distributors not only assume functions like transport or storage, but also perform sales and marketing tasks including the contact to and negotiation with potential buyers, the promotion of the offer and the adjustment of products (Pando, 2015, p. 23). These distribution functions can be realized by intermediaries or by the manufacturing company itself, reducing this way the number of intermediaries employed (Pando, 2015, p. 23).

2.1.4.4. Structure of distribution channels

The distribution channel consists of the path the product takes from its point of origin to consumption, as well as the set of people and entities who are in charge of the realization of the corresponding tasks along this path (Pando, 2015, p. 22). These people and organizations act as intermediaries, facilitating the flow of goods and services from the manufacturer to the consumer (Pando, 2015, p. 22). A fundamental question of the distribution policy, therefore, concerns the number of intermediary levels that exist between the manufacturer and the consumer – also called the length of a channel (Spiller, 2010, p. 236). From its place of production to the commercial business premise - the product passes through various intermediaries representing the distinct phases of a distribution channel. According to the number of phases, the marketing channels are divided into the following types:

- **Direct selling:** The producing company distributes its own products without using any kind of intermediary (e.g. via retail outlets, internet sales) (Spiller, 2010, p. 236). The product reaches the end-customer directly from the manufacturer. This type is also called a "*Zero Level Channel*" (Frain, 1999, p. 269).
- **Indirect distribution** implies that a manufacturer incorporates one or more middlemen to move goods from the production place to the place of consumption (Hutzschenreuter, 2007, p. 181). Sales channels can be classified in terms of the number of intermediaries involved in the distribution process as follows:
    - *One Level Channel*: The manufacturer sells the goods directly to a retailer, which means that one intermediary is involved in this process. Retail companies sell thereupon the goods to consumers without substantial treatment or processing (Spiller, 2010, p. 236).
    - *Two Level Channel*: In this method a wholesaler is employed, which sells the goods without substantial treatment or processing to non-consumers, e.g. retailers, industry, restaurants, etc. which in turn sell the products to non-industrial end-customers (Frain, 1999, p. 269). Thus, two different kinds of intermediaries are incorporated in the sales channel.
    - *Three Level Channel*: One more intermediary is added to the two level channel in form of an agent, who reduces the distance between the manufacturer and the wholesaler. The agent sells the goods to the wholesaler, the wholesaler to the retailer and, finally, the retailer sells the material to the consumer (Frain, 1999, p. 269).

The different types of distribution channels are illustrated below in *Figure 2*:

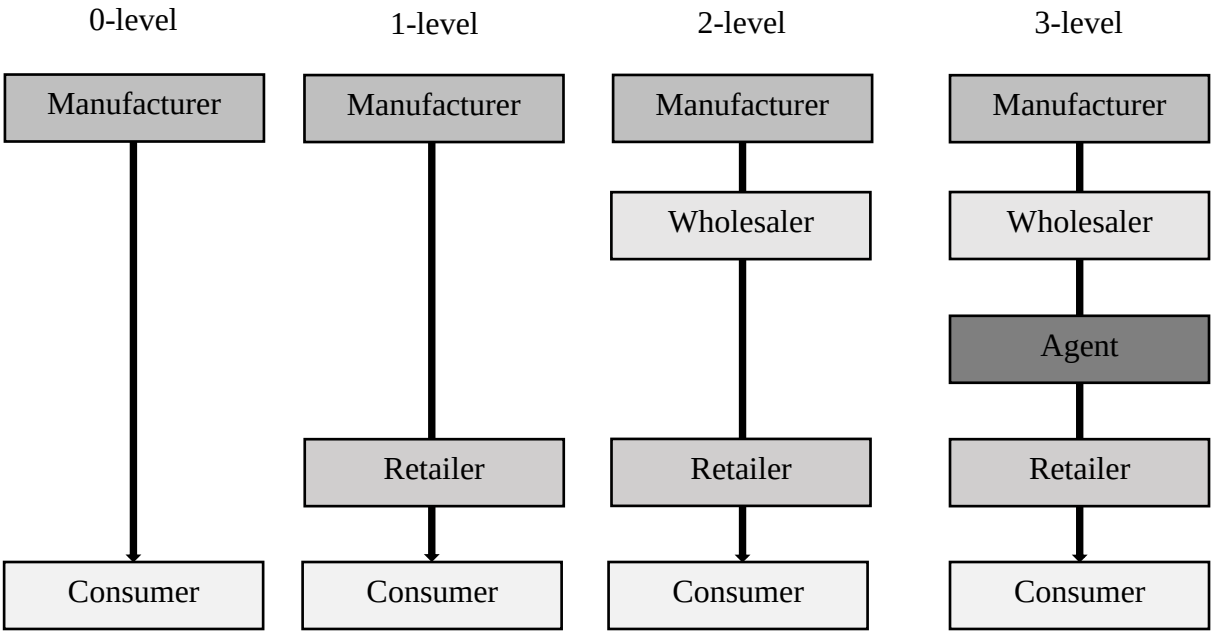

Figure 2. The structure of distribution channels in terms of intermediary levels. Adapted from "Essential Marketing", by C. W. Lamb, J. F. Hair, & C. McDaniel (2011, p. 395).

According to Pando (2015, p. 27), in the last years a process of "disintermediation" took place in various distribution channels, driven by distance selling (mainly over the internet), the development of manufacturer stores or the grouping of small manufacturers for direct selling to the final consumer. "Reducing the number of intermediaries does not imply a cease of functions, but rather a reassignment in responsibilities among the remaining channel parties, including the consumer", states Pando (2015, p. 24). The employment of intermediaries implies negative effects like an increase of costs and of the final price, as well as loss of control of product commercialization (Pando, 2015, p. 24). However, intermediaries tend to realize distributional actions with higher efficiency than manufacturers which in turn leads to a reduction of the number of contacts inside a distribution channel, facilitating this way exchanges and, in turn, reducing costs: e.g. the high degree of specialization of intermediaries and their potential achievement of economy of scales increase productivity while saving transaction costs (Pando, 2015, p. 24).

2.1.4.5. Types of intermediaries

Intermediaries are companies that acquire goods in their own name from other companies in order to resell them largely unchanged (Tomczak, Kuß, & Reinecke, 2014, p. 165). Two main types of intermediaries can be distinguished: *wholesalers* and *retailers*. Whereas wholesalers primarily sell goods and services to those buying for resale or business use, such as retailers, processors, or commercial consumers, retailers sell primarily to final consumers for personal use (Kotler & Armstrong, 2012, p. 394; Hutzschenreuter, 2007, p. 181).

2.1.4.5.1. Wholesale distribution

Kotler and Armstrong (2012, p. 396) classify wholesalers in three major groups: merchant wholesalers, agents and brokers, and manufacturers' sales branches and offices. Merchant wholesalers are the largest group and represent independently owned wholesale businesses that take title to the merchandise they handle (Kotler & Armstrong, 2012, p. 396). Agents and brokers are intermediaries that provide service in the negotiation between buyers and sellers (Kotler & Armstrong, 2012, p. 396). The last group refers to companies that assume intermediary activities themselves to dispense with independent wholesalers (Gilsanz, 2015, p. 93). Wholesale companies today face several challenges due to growing competitive pressures, more-demanding customers, new technologies, and more direct-buying programs on the part of large industrial, institutional, and retail buyers (Kotler & Armstrong, 2012, p. 396). In response to growing requirements and expectations by their customers, modern wholesalers have invested in automated warehouses and IT systems, implementing cost-reducing methods this way. In addition, they are transferring more and more business activities to the Internet (Kotler & Armstrong, 2012, pp. 398-399).

2.1.4.5.2. Retail distribution

Retailing refers to "all activities involved in selling goods or services directly to final consumers for their personal, nonbusiness use" (Kotler & Armstrong, 2012, p. 374).

Representing the last part of a consumer's path to purchase, retailers play an important role in most marketing channels, as they influence customers at the point of purchase (Kotler & Armstrong, 2012, p. 374). Retailers can be classified in terms of various criteria, such as the level of service provided, the range of assortment, price levels and the way they are organized (Gilsanz, 2015, p. 100). However, two basic retail formats can be identified: store retailing and non-store retailing.

2.1.4.5.2.1. Store based retailing

Store based retailers operate from a fixed store location and require customers to travel to the store to view and purchase products (Dunne, Lusch, & Carver, 2013, p. 263). They can be classified on the basis of ownership and control (e.g. independent retailer, franchise) and according to the different types of stores (e.g. department stores, specialist stores, convenience stores, supermarkets) (Rafiq, 2014, pp. 20-29).

2.1.4.5.2.2. Non-store retailing

Non-store-based retailers reach customers at places other than a store, for example at home or at work, where they might be open to purchasing (Dunne, Lusch, & Carver, 2013, p. 263). Hence, non-store retailing involves all retail formats that do not use bricks-and-mortar stores (Zentes, Morschett, & Schramm-Klein, 2012, p. 57). Home delivery is the most important type of non-store retailing, as traditional catalogs and the Internet represent the most important non-store formats in terms of market share; other channels are, for example, direct selling, TV shopping, vending machines or mobile commerce (Zentes, Morschett, & Schramm-Klein, 2012, p. 57). The possibilities for consumers to buy products without visiting a physical store have increased considerably in recent years (Rafiq, 2014, p. 31). In particular, with the advent of Internet retailing and mobile online shopping the retail landscape has been extended by numerous non-store formats of shopping (Rafiq, 2014, p. 31). As consumers increasingly combine new formats with established ones, multi- and cross-channel shopping

trends emerge (Rafiq, 2014, p. 31). However, some retailers still rely on traditional home shopping methods, which are briefly explained below.

2.1.4.5.2.2.1. Catalog retailing

Catalog retailing represents the traditional type of non-store retailing (Zentes, Morschett, & Schramm-Klein, 2012, p. 57). In this retail format offerings are communicated to the customers through a catalog, magazines or brochures. The buyer has the possibility to place an order for the desired products with the merchant via mail, fax or telephone (Zentes, Morschett, & Schramm-Klein, 2012, p. 57).

2.1.4.5.2.2.2. Direct Selling

Direct selling describes person-to-person proactive offers from providers to consumers, and may take the form of direct mailing (physically and email) to individual customers, telesales and personal retailing (Rafiq, 2014, p. 33). Personal retailing is one of the oldest forms of retailing (Rafiq, 2014, p. 33). It refers to the marketing of products to customers through face-to-face sales presentations at home or in the workplace (Pride, Hughes, & Kapoor, 2012, p. 376). The traditional door-to-door selling has evolved to more organized forms of direct selling, such as party sales (e.g. Tupperware) (Rafiq, 2014, p. 33).

2.1.4.5.2.2.3. Technology-based non-store retailing

Several non-store retail channels have evolved that are based on technological developments (Zentes, Morschett, & Schramm-Klein, 2012, p. 59). The oldest form of technology-based retailing is **vending** (Rafiq, 2014, p. 33). This is a form of non-store retailing in which the products are stored in a machine and dispensed to the customers when they deposit cash. Another well-established method of non-store retailing are **telesales**, i.e. a seller offers products to consumers by a personal telephone call. Despite its limited possibilities regarding the presentation of the product, call centers remain an important part in non-store retail as a

method of communication between customers and retailers (Rafiq, 2014, p. 33). **Television home shopping** refers to a retail format in which merchandise is demonstrated in infomercials, TV channels dedicated to television shopping (e.g. QVC) or in direct response advertising shows on TV or radio (Zentes, Morschett, & Schramm-Klein, 2012, p. 59). Customers who watch such a TV program then place orders for the desired products by telephone.

The by now most important non-store retail formats based on new technologies, such as **online** and **mobile retailing**, are portrayed in the next chapter.

2.1.5. Distribution in the digital era

The previously portrayed channel landscape comprising traditional distribution channels has been extended through the growth of Internet and the emergence of digital commerce. With the introduction and commercialization of the Internet in the 1990s, the traditional concept of distribution has been altered by gaining in complexity as new sales channels entered the field. The aim of this chapter is to provide an overview of the impact of the digitalization on distribution, describing web-based channels and platforms which complement the omnichannel buying journey of modern consumers.

2.1.5.1. The Internet and the World Wide Web: Changing distribution

"The Internet has changed the way people buy, sell, hire, and organize business activities in more ways and more rapidly than any other technology in the history of business", argues Schneider (2011, p. 8). Before the Internet, marketers decided basically between two types of sales channels: direct and indirect; at the end of the 20th century the distribution mix turned more complex as the Internet established as an important new channel for commerce (Ghosh, 1998). As a result, new electronic sales channels emerged which led to significant transformations of the current distribution system (Clemons, Gu, & C. Row, 2003, p. 2). The

range of alternative channel structures for marketers to decide on extended as direct and indirect channels can be both online and offline.

Scacchi (1994, p 32) defines the *internetwork* as an "open-end network of computer and communication networks that now encircle the globe". He states that it continues to grow through the addition of new networks, computers, and user connections at a rate that far outstrips any previous growth trend associated with modern information technology. The World Wide Web (or short: web) is often being confused with the Internet (Wilde, 2013, p. 1). From a technological point of view, the web refers to an accumulation of applications, which are carried out on the infrastructure provided by the Internet (Wilde, 2013, p. 1). By now, the web has become an integral part of everyday life for millions of people (König, 2004, p. 1) and serves as an "invaluable source of information and a powerful communications tool" (Felton, 1996, p. 38). Its technology has contributed a great part to the rapid development of the internet usage, especially, as it allows for the transmission of pictures, videos and sound. Today, the consumer is able to access all the available information at any time, without having to master a programming language (Peterhans, 2007, p. 11).

From the second half of the 1990s the Internet and its multimedia platform, the World Wide Web, were discovered for many areas of business. The web, developed in 1991 at the CERN in Geneva, is the most important service for the commercial use of the Internet (Peterhans, 2007, p. 10). The increasing penetration of information technology in economy and society at that time (Internet boom), led to fundamental changes and the development of the "New Economy". A large number of internet start-ups were founded; two of them still belong to the most successful companies worldwide: Amazon, which started as a virtual bookshop, and the Internet auction site eBay (Hettler, 2012, p. 2). As Pitt, Berthon & Berthon already stated back in 1999, the new electronic medium has changed distribution "like no other environmental force since the industrial revolution", rendering the traditional role of

intermediaries and channels obsolete. However, while some intermediaries (e.g. travel agents) have almost disappeared due to the internet, there is more evidence of re-intermediation than of de-intermediation; many of the new intermediaries act as information intermediaries or provide platforms bringing together sellers and buyers (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 12). Distribution channel structures and strategies were initially based on assumptions, which have been altered in the last years through the spreading influence of the web and its use for business aims. Moreover, channels have been transformed or even vanished in the course of digitalization (Pitt, Berthon, & Berthon, 1999, p. 19). Pitt, Berthon, & Berthon (1999, p. 19) demonstrate how the original purpose of a distribution channel which is to make the right quantities of the right product or service available at the right place, at the right time (Pride & Ferrell, 2008, p. 415) has been undermined by technology and online commerce, which have three major effects on distribution:

1. *The death of distance*

With the rapid spread of new communication technologies, the cost of communicating electronically will no longer be determined by distance. Hence, the distribution of digitizable products, such as video, music, pictures and words, has no effect on costs and in general distance diminishes in its effect on distribution costs, argue Pitt, Berthon & Berthon (1999, p. 20).

2. *Homogenization of time*

Virtual marketplaces are 24 hours open, demising the dependence of providers and consumers on time (Pitt, Berthon, & Berthon, 1999, p. 20). This is closely related to what McKenna defines as *real-time*: “Real time occurs when time and distance vanish, when action and response are simultaneous” (McKenna, 1999, pp.4-5).

3. *The irrelevance of location*

Online retailers do not rely on a fixed location in order to sell their merchandise. Instead the web serves as their point of sale (Pitt, Berthon, & Berthon, 1999, p. 21). Hence, location as a key element of marketing decisions is fading in importance as products from anywhere can be sold to any place.

As Kiang & Chi (2001, p. 157) state, "the phenomenal growth of the internet has begun to alter the way buyers and sellers exchange information and the structure of distribution. It breaks through the physical barriers traditionally placed on commerce and moves firms to a new commercial marketplace." The Internet has not only had a profound effect on commerce as it changes the conventional structure of distribution channels but also as a distribution channel itself. Instead of merely relying on intermediaries, a growing number of companies, such as Nike, Disney or Apple, have established own online direct sales channels, adopting multi-channel distribution strategies this way as they combine both off- and online channels (Coughlan, 2006; Deloitte, 2016, p. 4). Frazier (1999, p. 232) argues that "the utilization of multiple channels of distribution is now becoming the rule rather than the exception". With the rapid growth of e-commerce a new form of distribution has established in the business field, affecting consumer behavior on a large scale; the increasing level of interactivity in business activities through the web allows modern consumers not only to create virtual markets or communities (Pitt, Berthon, & Berthon, 1999, p. 25), but also to design an individualized product, shaped according to their own preferences, to communicate with brands almost in real-time via online chats and social media and to order products not only from home with their desktop computer but also on the go with their smartphone. However, despite changes in the channel structure and strategy, traditional commerce has not been fully replaced by e-commerce. Instead online retail has created new possibilities and sales channels without cannibalizing fully the traditional form of commerce (PwC, 2016, p. 12).

The Internet also led to an increase in channels and platforms consumers can use to interact with companies, brands and other consumers, and retailers can use to reach their customers. Hence, this section gives an overview of the most important modern web-based touchpoints consumers use during their purchase journey. The development from the World Wide Web to the more interactive and social Web 2.0 paved the way for the implementation of social networks and blogs in the shopping process.

2.1.5.1.1. Web 2.0

Web 2.0 describes a fundamental development and change of the World Wide Web toward more interaction (Walsh, Kilian, & Hass, 2010, p. 3). Thus, it refers to the modified use of the web by its users along with the improvement of data transfer rates (DSL) and the reduction of internet usage costs (Hettler, 2012, p. 3). The web has developed from a mere collection of mostly static websites and information storage to a platform, which is fully orientated to user participation (Walsh, Kilian, & Hass, 2010, p. 3). The role of the internet user was redefined by the Web 2.0: from a passive recipient of information and user of standardized websites toward an active communicator and creator (Walsh, Kilian, & Hass, 2010, p. 3). Hence, web users are no longer pure consumers of published information and content online, but are increasingly able and willing to actively shape web contents (Hettler, 2012, p. 4).

2.1.5.1.2. Social Media

Social Media describes personally generated content aiming at interactions, which is published in form of text, pictures, video or audio via online media for a virtual community, as well as the underlying and supporting services and tools of the Web 2.0 (Hettler, 2012, p. 14). Marketo (2010, p. 5) defines Social Media as "the production, consumption and exchange of information through online social interactions and platforms." Hence, Social Media enables users via adequate internet technologies to communicate in online communities and allows for the public creation of user generated content in certain online channels (Hettler, 2012, pp. 14-

15). The social web has contributed to an increasing variety in customers' touchpoints with a brand. Connected consumers are able to discover and explore products in the virtual world via social networks, blogs, forums, rating sites, online magazines, online videos, websites and search engines, among many more, and to comment on their shopping experience after the purchase through various online channels (PwC, 2016, p. 25). Consumers look for product recommendations and insight on social media sites and follow trusted influencers or brands, which they can contact directly over these platforms since most companies already manage a social media profile (Gonzalez, 2014, para. 9). Blogs and social platforms like Pinterest influence consumers during the pre-purchase phase, who visit these sites to get ideas and inspiration for products (Gonzalez, 2014, para. 6). A blog is a user-generated website on which the writers (bloggers) enter their remarks in journal style (Weber, 2007, pp. 168-169). Moreover Blogs often provide commentary or news on a particular subject (Weber, 2007, pp. 168-169). A typical blog combines test, images, and links to other blogs, web pages. Even though the vast majority are text, some bloggers focus on photographs (photo-blog), video (vlog), or audio (podcasting) (Weber, 2007, pp. 168-169). Moreover online communities in form of forums and groups are consulted by consumers to obtain information and recommendations by other users. Forums are defined as technological based, thematically orientated discussion platforms on the basis of the World Wide Web (Safko, 2010, p. 119). In addition, consumer reviews on retailers' website, online marketplaces or independent rating sites, are a popular tool for buyers to research a product and trust in the opinion of other consumers and are often decisive at the moment of purchase (Gonzalez, 2014, para. 10). Consumers also investigate more about a potential purchase watching online videos on platforms like YouTube, where products are demonstrated and rated, or use search engines like google to find more information about a purchase. Search engines are "computer programs that search databases and internet sites for the documents containing keywords

specified by a user" (Business Dictionary, 2016). Another possibility for customers to get in touch with providers over the Internet are emails; through this electronic medium consumers receive brand's newsletters and advertisement, but can also use it for after-sales support and for contacting a company directly to obtain more information or a recommendation about a potential purchase (Nussey, 2004, p. 10). Internet users may also visit the provider's webpage in order to access more information about a product or service where they can use, for instance, an online live chat or formulary on the site or check recommendations by other consumers (Gonzalez, 2014, para. 11).

2.1.5.2. Electronic sales channel

The Internet and the World Wide Web have enhanced the emergence of new distribution methods based on electronic media which has led to a fundamental change in retail and marketing strategies. The electronic marketing channel is defined as "the use of the internet to make products and services available so that the target market, with access to computers or other enabling technologies, can shop and complete the transaction for purchase via interactive electronic means" (Hiltz, 2001, p. 41). E-commerce began expanding in the early 1990s with the arrival of the World Wide Web and driven by the liberalization of the telecommunications sector and innovations such as optic fiber and DSL (Yuthayotin, 2014, pp. 12-14).

2.1.5.2.1. E-commerce

"Electronic commerce (e-commerce) is the process of buying, selling or exchanging goods, services, and information via electronic networks, including the Internet" (Turban & King, 2003, p.3). These business transactions occur either business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer (C2C) or consumer-to-business (C2B) (Turban & King, 2003, p.3). E-commerce offers several benefits such as around-the-clock availability, a

wider selection of goods and services, accessibility, and international reach (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 13). Nevertheless, its disadvantages are, for example, a limited customer service, not being able to see or touch a product prior to purchase, and the waiting time for product shipping (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 13). E-commerce registered a rapid growth in the last years, rising by importance and becoming a worldwide phenomenon that impacts business operations, government policies, consumer buying behavior and many other elements of modern society (Thanasankit, 2003, p. 150). Web shopping is only a small part of e-commerce which comprises several types of businesses such as customer-based retail sites, e.g. www.Amazon.com (B2C), auction and music sites, e.g. www.ebay.com (C2C), and business exchanges trading goods between corporations (B2B) (Maamar, 2002, p. 289).

With the growth of electronic commerce, the role of the store is changing, paving the way for new approaches to virtual retailing:

1. **Click-only companies** (*pure players, dot-coms*): Retailers who operate online only and have no physical market presence (Rafiq, 2014, p. 34), such as eBay or Amazon.
2. **Click-and-mortars** (also called *click-and-bricks*): This term is used to describe a business model by which a company integrates both offline and online presences, sometimes supplemented with physical catalog and/or telephone sales. For instance, companies that market products via an online store but also offer consumers the option to return purchases made over the Internet in a physical location, are considered click-and-bricks (Fazio Maruca, 2007, p. 52).

As previously depicted e-commerce can take various forms; the most known method of electronic selling is via an online shop or an electronic marketplaces, where different

providers offer their merchandise. Nevertheless, new forms of distribution have been added to the existing channels, such as social media sales.

2.1.5.2.1.1. Online shop

Online shops offer the possibility to initiate and support transactions electronically (Gabler Wirtschaftslexikon, 2016). In an online shop only one brand or company is presented. A manufacturer or retailer offers a specialized range of merchandise via a self-managed website (Becker, 2000, p. 47). Online shops are direct sales channel, as the manufacturer or retailer sells products directly to customers from their website without using intermediaries (Johnston, 2013, p. 66).

2.1.5.2.1.2. Electronic marketplace

"Electronic, or online, marketplaces are independently owned, IT-enabled intermediaries which connect sellers and consumers" (Soh, Markus, & Goh, 2006, p. 706). Electronic marketplaces can be divided up into online retailing marketplaces (e.g. Amazon, Alibaba) and online auction marketplaces (e.g. eBay). In online retailing marketplaces, sellers publish goods offerings (including price and quality information) on the marketplace platform; consumers search, browse and compare goods offerings, and purchase goods from sellers (Nelson, 2009, p. 157). On consumer-to-consumer auction websites, private buyers and sellers meet to exchange goods or information; sellers can post articles at any time and bidders can place bids, allowing consumers to purchase products from other consumers (Jank & Shmueli, 2010, p. 1). In contrast to online shops, selling products or services through third party websites, marketplaces and channels, is a form of indirect selling (Johnston, 2013, p. 66).

2.1.5.2.1.3. Social media as a sales channel

As PwC found customers are relying on social media to make product decisions and gauge brand authenticity (PwC, 2016, p. 25). Their online shopping behavior is influenced by

reading reviews, comments and feedback in social networks (PwC, 2016, p. 26). However, social media is also becoming more interesting as a shopping channel, as PwC noticed a significant increase in the number of online shoppers purchasing directly via a social media channel (PwC, 2016, p. 27). Salerno (2014) explains that "selling directly through social media may not surpass the volumes sold through more traditional channels such as brick and mortar stores or e-commerce sites, but it can certainly influence purchasing decisions in those other venues through a process called channel-hopping". Hence, even though social sales are not always completed on Facebook, twitter, etc., social networks can serve as a starting point, raising the consumer's awareness for a product who might purchase via another channel in the end.

2.1.5.2.2. M-commerce

Online retailing, which in the past was restricted to the personal computer, is now possible via mobile networks and hand-held devices, allowing consumers to shop anywhere and anytime (Rafiq, 2014, p. 34). According to Steimer, Maier, & Spinner (2001, p. 10), "mobile commerce comprises the mobile, and thus independent of location, procurement and provision of all kinds of information for the transaction of business and communication processes using mobile devices and appropriate services and network infrastructures". Simply put, mobile commerce (m-commerce) describes the purchase of goods and services via wireless electronic devices such as hand-held computers, mobile telephones or laptops (Tuna, 2010, p. 5). In doing so, m-commerce requires the integration of two already existing technologies: the Internet and mobile communications. Hence, m-commerce is closely related to e-commerce as "the services offered in both variations are handled electronically by computer-mediated networks and are accessible via telecommunication networks" (Layade, 2012, p. 26). M-commerce opens new business opportunities by enabling innovative, location-based services (LBS) that stationary online commerce cannot offer. Location-based services can be used,

mainly in form of applications, via a mobile device with network reception; they provide information adapted to the current location (Springer Fachmedien Wiesbaden, 2014, p. 78). LBS use a smartphone's GPS technology to track a person's location, this way companies are, for example, able to send consumers coupons and special offers based on their current location (Rainer & Turban, 2008, p. 217). Gordon (2011, para. 2) considers m-commerce as "the natural progression from e-commerce, using the same idea of electronic processes but allowing for a more personalized and direct business model". According to Mallat et al. (2006, p. 3), the most significant feature of mobile technology is the mobility and portability, i.e. "the ability to access services ubiquitously, on the move, and through wireless networks and various devices".

Clarke (2008, p. 49) summarizes the differences between m-commerce and e-commerce on the basis of specific attributes of mobile technology:

- *Ubiquity*: Mobile devices grant users the ability to receive information and perform transactions independently of the user's location on a real-time basis
- *Convenience*: Consumers are no longer constrained by time or place in accessing e-commerce activities
- *Localization*: Knowing the user's location creates a significant advantage for m-commerce over wired e-commerce. With the help of location-based technologies such as GPS retailers are able to send information relevant to the current geographic position of the consumer.
- *Personalization:* Mobile technology enables marketers to offer mobile users an increasingly targeted Internet experience including personalized messages based on time and location.

The expansion of this new retail market area is driven by a number of factors, such as the constant introduction of newer communication technologies, the demand for applications from an increasingly mobile consumer base, and the saturation of the global mobile phone market, argues Gordon (2011, para. 1).

2.1.5.2.2.1. Mobile devices

M-commerce takes place on mobile devices. "A mobile device is a portable computing device such as a smartphone or tablet computer" (Oxford Dictionaries, 2016). Bundschuh (2011, p. 2) makes a distinction between two groups of mobile devices: active mobile devices, such as notebooks, netbooks, tablet-PCs, and smartphones, which serve for the direct data entry and thus are capable of replacing a computer, and passive mobile devices, e.g. music player or digital cameras which do not support an active user input. For analyzing the shopping behavior of modern consumers only the first group of devices is of interest, as the others cannot be used for online transactions. Furthermore, in this study only those digital devices are considered mobile devices which offer the user autonomously the possibility of accessing the mobile internet, i.e. communication with mobile networks for which a sim card is necessary. Hence, we focus our discussion on handheld devices that are able to transmit and receive data through wireless network infrastructure. This criterion is only fulfilled by smartphones and tablets (Bundschuh, 2011, p. 2). Wearable devices such as smartwatches or glasses are not considered in this study as they still play a minor role in retail. Smartphones and tablets are of special interest for this investigation as they are increasingly used for mobile shopping and, thus, play an important role for modern consumer behavior (DigitasLBi, 2015).

Smartphones can be understood as mobile devices which originated from the further development of the conventional mobile phone (Bundschuh, 2011, p. 2). Smartphones offer expanded functions, as, contrary to the first models, telephony only presents one of many functions and is not the main feature of smartphones any longer (Bundschuh, 2011, p. 3). The

smartphone is portrayed as a convergent device providing a variety of mobile functionalities in one handset (Ciaramitaro, 2011, p. 6). Smartphones provide telephone communication capabilities as well as text messaging, photo, video and music capability, location services, Bluetooth and RFID connectivity abilities, Wi-Fi connectivity, application and gaming capability (Ciaramitaro, 2011, p. 6). Moreover, every user has the possibility to install a number of applications on his device for further personalization, which are small software programs that, for instance, offer calendar function, weather and news services, games, etc. (Bundschuh, 2011, p. 3).

A tablet pc (short: tablet) can be considered as a further development of note- or netbooks. As they do not dispose of a mouse or keyboard, these portable computers are operable via touchscreen (Gabler Wirtschaftslexikon, 2016). The functional scope is similar to the one of smartphones as mainly identic programs and applications are supported, except that tablets do not possess the telephone feature (Bundschuh, 2011, p. 3). Tablet mobile devices combine capabilities of desktop computing along with email, video and music capabilities (Ciaramitaro, 2011, p. 6). These mobile devices are wireless, battery-operated and connected with the Internet via the wireless network or UMTS (IT Wissen, 2016). A type of minicomputers, which can be considered as a mixture of smartphones and tablets, are *phablets*, a combination of the terms phone and tablet (IT Wissen, 2016).

Both devices, smartphones and tablets, have the ability to connect to the Internet either through a Subscriber Identity Module (SIM) card by connecting to a 3G network or through WIFI; the Internet connectivity and mobility is a fundamental part of mobile commerce (Layade, 2012, p. 15).

2.1.5.2.2.2. Mobile application

A mobile application, most commonly referred to as an app, is a type of application software designed to run on mobile devices, such as smartphones or tablets, which extends the gadget's functional scope (Liberos, et al., 2013, p. 395). The spectrum of possibilities ranges from simple tools and gaming apps to multitasking capable business programs. In the corresponding app store these small software programs can be directly downloaded to the device, either for free or against a fee (Rukeltukel, 2012, p. 5).

2.1.5.2.2.3. Mobile wallet

Via a special application and an appropriate wireless technology, smartphones can be used as a payment medium and alternative to cash or credit cards. This mobile payment procedure is referred to as "Mobile Wallet" and operates, for example, by passing the smartphone without contact and from a short distance by the payment system via NFC technology, or via a confirmation through a barcode scan (Pinner, 2014, p. 1). With the help of a special application which uses the smartphone's camera, images like QR codes or barcodes can be scanned in order to transfer information (Winter, 2011, p. 18).

2.2. SHOPPING BEHAVIOR IN THE DIGITAL ERA

2.2.1. Introduction

The purpose of this chapter is to describe consumer behavioral trends related to the use of the Internet and mobile technology and to illustrate their general impact on the buying decision journey of modern customers. First, a general overview of the use of new digital channels for shopping, is presented, as well as specific characteristics of modern consumers. The increasing complexity of B2C purchases via multiple shopping channels and digital devices has led to the emergence of new hybrid shopping trends, which require a further development of the traditional buying process models towards a cross-channel and cross-touchpoint customer journey. In this chapter traditional buying process models are presented as the basis of the concept of the consumer decision journey and cross-channel shopping trends, which call for a revision of the classical approaches, illustrated. The different phases of the customer journey are explained in a digital and multichannel context based on the results of prior studies concerning the use of multiple touchpoints along the purchase journey. This section, thus, combines the previous chapters, regarding the digitalization of shopping through the Internet, social media and mobile devices, and the resulting increase in the variety of sales channels. As the customer journey is analyzed step by step with focus on multiple digital touchpoints, this chapter lays the foundation for the following empirical investigation of a potential "omnichannel" buying behavior in the modern age.

2.2.2. Characteristics of the modern digital consumer

In order to better understand the relevant changes the ongoing digitalization and the growing access to the web have brought to the shopping behavior, specific behaviors and characteristics of modern consumers are identified allowing for a better insight in the conducts of omnichannel shoppers.

- **Connectivity and the social customer**

The present consumer is connected – with the Internet and with other users, and since the advent of mobile devices with Internet access, he is possibly connected 24 hours. This "connected living" impacts and changes almost every aspect of our daily lives, argue Berman & Kesterson-Townes (2012, p. 30). Connectivity allows not only the fast and easy access to a large amount of information, but also to broad commercial offers (Zorrilla, 2015, p. 127). According to Deloitte (2014, p. 7), "consumer technology has changed the shopping experience" as connected consumers are employing various tools for shopping-related activities: they use them to discover new products and brands, to compare prices, research on product availability, to complete the transaction, and to build loyalty with retailers.

Connectivity is closely linked to the emergence of a *social customer*, who is connected with the Internet at any time and at any place, and thereby with other people, particularly with the personal peer group; he encounters himself in almost constant social interaction via telephone, email, social networks, blogs and forums (Attensity & Chess Media Group, 2010, p. 2). With each purchase or decision he can draw on the knowledge and experience of other consumers and experts and produce own experience on which others can rely in the future. Customers have transformed into being social in the way that they share their experience and opinion with a large group of people, facilitated by the Web 2.0 (Zorrilla, 2015, p. 129).

- **The interactive "prosumer"**

Moreover, consumers are interactive. Today, web-based innovations, such as social networks, allow users to interact directly with companies. The traditional one-way information flow of marketing messages sent via radio or television are being replaced by two-way communication channels, such as social media, email or chats. "The modern – digital and networked – consumer has evolved from a pure passive recipient, user or buyer, to a more and more self-contained player, who actively shapes the interaction and communication with

companies and other consumers", states the Attensity & Chess Media Group (2010, pp. 2-3). In the digital environment, the traditional distinction between consumer and producer has become increasingly blurred, turning consumers into "prosumers", who both consume and produce online content (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 17). The Internet has changed how people communicate and share information by granting access to world-wide content, the means to generate content, access to a distribution infrastructure for user-generated content and access to an audience (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 24). Many web 2.0 applications such as social networks, eBay and YouTube allow users to upload, create and sell information. Auction websites such as eBay have made it easier for consumers to sell products, and thus allows users to be consumers and sellers at the same time.

- **Mobile**

Consumers are mobile. The increasing penetration of mobile devices, such as smartphones and tablets, "keep consumers always connected in new and unique ways" (Deloitte, 2016, para. 1). Consumers use mobile devices, for example, on the way to work or while queuing for activities related to shopping, such as researching products. Moreover, smartphone owners increasingly use their device while engaging in other activities like shopping or watching TV (Deloitte, 2016, para. 3). The trend towards using "new generation" wearables, such as smart watches, enhances the increasing mobility of individuals with every step they take (PwC, 2015). More importantly, digital device users also consume on the move. Consumption takes place where and when the consumer wants, facilitated by new technologies such as mobile Internet with 24 hour access to sales platforms, which makes it possible for consumers to make orders whenever they find it convenient (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 21). Consumers are also embracing emerging mobile-specific technologies

such as location recognition and barcode-scanning in the context of shopping (Deloitte, 2014, p. 7).

- **Loss of loyalty and trust**

The digital and multichannel environment grants consumers a multiplicity of access points to information – TV, newspapers, consumer magazines, journals, radio, Internet, which confuses the consumer and leads to a "breakdown in trust and information dissonance", argue Spink and Cole (2006, p. 223). Since consumers no longer trust traditional information channels as they once did, consumer opinion and relationships are formed on other, digital based, channels. According to Kim and Srivastava (2007, p.293), consumers are more likely to trust recommendations from people they know, for example, recommendations provided through social networks. As a result, the role of professional experts and salespeople has diminished. Due to an increase in information, commercial messages and recommendations by the sales staff have lost its credibility in favor of opinions and recommendations by other users which meet in blogs, social networks and specialized websites (Martínez, 2015, p. 313). Modern customers turn away from marketing by organizations as they distrust mainstream information channels, such as TV or radio. They are more easily influenced by family, friends and people they have something in common with than by traditional promotion.

Furthermore, today's customers do not have the same level of loyalty as they once did, but have become more open to brand switching (Martínez, 2015, p. 313). As customers' demands rise, they are more critical and more easily turn to the competition, if the received service was not good enough. However, modern consumers are also more willing to pay for superior service as the price is not always the decisive element anymore (Hughes, 2016, para. 5).

- **High demanding**

"Customers are less tolerant", says Adam Hughes from PA Consulting (2016, para. 3); modern customers have higher expectations and it has become more difficult for brands to satisfy customers' wants and needs. They do not only compare brands with their direct competitors, but rather with all other companies regardless the sector or product (Hughes, 2016, para. 3). The comparison includes not only the product but other brand elements such as service, quality, and the overall customer satisfaction. If one brand offers an outstanding service, the benchmark is set for all other companies to meet those standards. Moreover, in the digital environment, it has become easier for customers to complain about bad service. Customers today place special emphasis on the ease of service. If brands do not fulfill these heightened expectations, connected consumers use digital media to complain and to share their negative experience with others. When consumers are dissatisfied, they have the "powerful megaphones of the Internet, mobile devices, and social media" (Ho, 2015, para. 9). In addition, Hughes (2016, para. 3) argues, that customers are less tolerant today than they used to be and also less patient. He sums up the demands of present consumers including convenience, consistency, timely and relevant communication, being heard and everything in real-time. Kapoor (2015, p. 7) agrees with this: "Consumers value speed, simplicity, quick responses to questions and reliable delivery, rather than worrying about whether they shop online or instore". As the Internet is becoming a natural element of our lives and mobile devices accompany many people with every step, users are becoming used to immediate responses and real-time information. According to an investigation realized by the international consultancy Accenture in 2014, consumers expect a higher consistency between the different channels in aspects related to assortment, promotional and loyalty incentives, as well as prices. The price is not the only determination variable of the purchase decision today, but is rather complemented by other elements like quality of the personal service and the overall shopping experience (Zorrilla, 2015, p. 128). In addition, modern consumers place

more emphasis on personalized offers and the customization of products and services to individual needs and wishes (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 21). "With advanced technologies, marketers, who by the mid-20th century segmented consumers based on general demographic characteristics, are now able to gather information that allows a more specific segmentation by consumer psychographics, such as opinions, interests, and lifestyles", explain Muller et. al (2011, p. 21).

- **Informed & self-determined**

The Internet and the digital environment provide users with an easier access to content (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 25). As portrayed previously, almost half of the global population has access to the Internet today. Moreover, digital technologies and the omnipresent connectivity grant consumers broad access to all the information they desire about a product or brand and which is difficult to be controlled by retailers (Zorrilla, 2015, p. 129). By offering consumers enhanced knowledge of products and services, they obtain information and opinions on which to base decisions – everything just a click away (Hughes, 2016, para. 3). This development has led to the emergence of the "digital information consumer" (Nicholas et al., 2003). There is also evidence that people use the Internet more frequently and increasingly for shopping-related activities. Manicom (2015, para. 8) explains how the digitalization has turned individuals into informed consumers:

> The digital revolution has provided customers with a far greater knowledge of products and services, meaning that brands no longer decide what information is handed to consumers regarding product knowledge. Consumers are able to access information and opinions within seconds, providing them with enough facts to make informed purchase decisions.

Connected consumers do not depend any longer on the advice of salespeople, but are able to make purchase decisions on their own. As a result, a growing number of potential customers already knows, before visiting a store, which product they want to buy.

- **The empowerment of the consumer**

Nicholas et al. (2003, p. 25) describe this development as a "massive shift in power from information provider to information consumer". As informed consumers have a larger choice, they also have more power, they argue. Moreover, the consumer in the digital age is neither limited by any physical boundaries nor locally bound to stores nearby. The Internet and e-commerce open up new possibilities for consumers who can easily choose from a great variety of offers with the competitor just one click away (Nicholas, et al., 2003, p. 25).

2.2.3. Evolution of the path to purchase

In the previous sections certain behavior patterns and characteristics of the digital customer were identified. Building on this, in the following, the impact of the multichannel and digital environment on the buyer's path to purchase is examined in more detail. The path to purchase describes the buying decision process every consumer follows when planning on making a purchase; marketers intend to understand this path by which consumers discover, learn, purchase and experience a product (Lovejoy, 2014, para. 1).

2.2.3.1. Classic buying decision process models

The basis of the customer journey is the funnel-oriented buying process model, which derives from the AIDA principle of advertising impact. The concept of the consumer decision journey also shows parallels to the buyer's decision model suggested by Kotler. In order to understand the purchase journey model as a further development of the classical buying decision processes, the sales funnel and Kotler's five-phases-model are portrayed, as well as current hybrid shopping trends which exert influence on the buying behavior of modern consumers in

the digital and multichannel context. The emergence of these consumer behavioral trends call into doubt the traditional models and have led to the advent of the customer decision journey model. This modern concept is introduced in this section as a response to changes in the consumer decision process.

2.2.3.1.1. The Sales Funnel (AIDA)

The sales funnel, also called marketing funnel, is based on the behavior-scientific AIDA-principle and illustrates the decision process of a consumer during a purchase (Riesenbeck, 2010, p. 220). The acronym AIDA stands for the keywords “Attention” or “Awareness”, “Interest”, “Desire”, and “Action” (Janoschka, 2004, p. 19). This approach divides the time span, until a potential customer converts into a buyer, into four different phases. Elmo Lewis already presented this model as a general advertising impact-principle in 1898 (Schilling, 2014, p. 124). “The AIDA concept describes a consecutive mental process in the customer where the successful achievement of one stage initiates the next”, states Schilling (2014, p. 124). As portrayed by Janoschka (2004, p. 19), from the marketer’s perspective it proceeds in the following way: The advertising message is supposed to attract attention (Step 1), i.e. the aim is to make consumers aware of the existence of an offer. Consequently, interest with the person addressed should be awakened (Step 2), generating a desire for having the product or service (Step 3). The desire triggers the buying impulse which in turn leads to the purchase (Step 4) (Janoschka, 2004, p. 19).

Building on this, the concept of the funnel constitutes a multistage buying process model. This approach assumes that a consumer only recognizes a limited number of brands (retrieval set) of all the brands available on the market (universal set) (Wötzel, 2015, p. 36). This number is further reduced by the customer who is choosing certain brands during his purchase process (consideration set), which he or she would generally consider (Wötzel, 2015, p. 36). Finally, the consumer decides for one of these brands. Characteristic of this model is that with

every stage possible decision alternatives drop out of the buying process. Hence, the funnel narrows as it progresses to the purchase (Wötzel, 2015, p. 36).

This concept has been widely criticised as the human decision process not necessarily proceeds in the described four phases (Riesenbeck, 2010, p. 220). The buying process is in reality more complex and does not run as linear as presented in the AIDA model (Alpar, Koczy, & Metzen, 2015, p. 89). However, the funnel model is still used by marketers as a simplified model of reality to understand the advertising impact and how customers come to a final purchase decision.

2.2.3.1.2. Kotler's five phases model

The buying process according to Kotler and Armstrong starts long before the actual purchase and continues long after; it can also result in a decision not to buy (Kotler & Armstrong, 2012, p. 177).

This process is divided into five phases:

1) Need recognition
2) Information research
3) Evaluation of alternatives
4) Purchase decision
5) Post-purchase behavior

In the **first phase** the consumer recognizes a problem or need which is either triggered by internal stimuli (e.g. hunger) or external stimuli (e.g. recommendation by a friend) (Kotler & Armstrong, 2012, p. 177). With the advent of online and digital marketing, and especially social media, consumers may be influenced by an increasing variety of external stimuli, such as online ads or reviews. Like advertisements, social influence may lead to the identification

of a new desire or need and the subsequent initiation of the buying process (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 66).

Based on a limited range of brands and retailers the customer considers at first, he or she undertakes an active search for a product or service, depending on the nature of the product and individual characteristics (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 63). During the **second stage**, consumers gather and assimilate information which leads to a more narrow consideration of which type of product or service to buy and from which provider (Kotler & Armstrong, 2012, p. 177). Consumers may limit their search to a number of certain products or suppliers based on recommendations of others either received through personal contact or online, e.g. via a rating site or blog. Consumers can obtain information from any of several sources; these include personal sources (family, friends, neighbors, peer group), commercial sources (advertising, salespeople, dealer web sites, etc.), public sources (mass media, consumer rating organizations) and experiential sources (examining, trying the product) (Kotler & Armstrong, 2010, p. 178). Hence, the information search process can take place in the offline and/or online world. While the Internet grants consumers access to a large amount of information, product details, price comparisons, etc., some product attributes cannot be assessed without seeing, touching, smelling or testing the product beforehand in a store. The length of the information process depends, among other factors as the price, on the involvement grade of the individual customer with the type of product or service; if the drive to purchase is strong and the product easily available, the customer is likely to purchase it without prior collection of information (Kotler & Armstrong, 2010, p. 178).

In the **third phase** of the buyer decision process, the consumer uses gathered information to evaluate alternative brands or retailers in the set of final brand choices (Kotler & Armstrong, 2010, p. 178). Brand, quality perception, price, ease of access, reputation, and speed of accessibility are important factors that the consumer may consider at this stage (Muller,

Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 68). Through the evaluation procedure, the consumer forms attitudes toward different brands, depending on the individual and the specific buying situation (Kotler & Armstrong, Principles of Marketing, 2012, p. 154). However, the final purchase intention is not only made through logical thinking but also impulsively (Kotler & Armstrong, Principles of Marketing, 2012, p. 154). Moreover, consumers may ask friends, other consumers, or salespeople for advice in order to come to a decision, or they make it all by themselves (Kotler & Armstrong, Principles of Marketing, 2012, p. 154).

After having ranked brands and formed purchase intentions in the evaluation stage, the customer enters the **fourth phase** of the buyer's decision process. Preferences and purchase intentions do not necessarily result in actual purchase choice (Kotler & Armstrong, 2012, p. 154). Between purchase intention and purchase decision can come two factors: attitudes of others, which influence the purchase intention so the individual might still change the final decision, and unexpected situational factors, such as a cheaper offer from a competitor (Kotler & Armstrong, 2012, p. 154). If the purchase intention results in an actual purchase, the customer either buys the product or service through offline sales channels (brick-and-mortar store, print catalogue, call center, etc.) or via digital and online channels (online market place, retailer's website, etc.).

The customer takes further action after purchase, based on his or her satisfaction or dissatisfaction (Kotler & Armstrong, 2012, p. 154). During the **last phase** of the buyer's decision process, the consumer may interact with friends, family or other consumers, facilitated by the Web 2.0, sharing his or her experience with a brand or product (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 97). Everyone is able to evaluate companies or product performances and to publish those evaluations online, e.g. on review or rating sites,

in social networks or blogs. Dissatisfied customers may also complain directly to the company or make use of after sales services.

Consumers not necessarily pass through all five stages with every purchase; a loyal customer who, for example, always buys the same brand of detergent, skips the phases of collecting information or evaluating alternative products, but purchases the product right away (Kotler & Armstrong, Principles of Marketing, 2012, p. 152).

Kotler suggests this model of a buying process, because it "shows all the considerations that arise when a consumer faces a new and complex purchase situation" (Kotler & Armstrong, 2010, p. 177). The five-phases-model is still a popular tool in marketing, but has also been criticized as the buyer's decision process implies a more linear path to purchase with a beginning and an end. However, a customer's buying path is increasingly understood as a cycle and a non-linear journey which the consumer undertakes (Court, Elzinga, Mulder, & Vetvik, 2009). This approach takes into account the growing complexity of the customer's buying journey considering the increasing number of alternative touchpoints and channels, through which a customer can come into contact with a brand and the switching between channels back and forth during a single purchase.

Before introducing this non-linear model of the consumer decision journey (CDJ), the following section presents those multi- and cross-channel shopping behavioral trends of consumers today, which call for a revision of traditional buying process models.

2.2.3.2. Hybrid shopping trends

Both the sales funnel and the five-phases model by Kotler reflect a in complexity reduced shopping process customers tend to pass through for each purchase. However, "online – and increasingly also mobile – technology is changing the way people shop", says Kapoor from The Economist (2015, p. 5). The clear and straightforward path to purchase of the consumer,

who visits the nearest store in order to find out about a product or service and to buy it, has shifted towards a buying behavior that often combines different platforms: researching a potential purchase on the Internet before buying in-store or over a smartphone, and vice versa (Kapoor, 2015, p.4). As the modern consumer is convenience orientated and has a wide range of channels on their hand, they show a buying behavior pattern, which is called "channel hopping" (Ahlert, Hesse, Jullens, & Smend, 2013, p. 11). This trend refers to the switching of distribution and communication channels, online and offline, analog and digital, during the customer journey by multioptional customers in order to benefit from the advantages granted by the available options (Heinemann, 2010, p. 333). Research shows that these customers spend more than consumers who only use one channel during their buying process (Deloitte Digital, 2015, p. 6) and show a higher level of loyalty toward a brand (Heinemann, 2010, p. 334). Virtual and brick-and-mortar stores are increasingly used by modern consumers for researching a potential purchase before deciding on where to buy in the end (Kapoor, 2015, p.4). "Retailers are starting to use in-store technology in response to this, allowing people to bypass queues by using payment apps, research products through kiosks or beacon technology, and using their website to broaden the range of products available in-store", explains Kapoor (2015, p.4). Consumers nowadays have a complex multimedia experience along the path to purchase, switching not only between channels but also between the digital devices they use. Moreover, customers not only switch between platforms, but also use them simultaneously, e.g. purchasing a product via their smartphone which they previously discovered in-store (Kapoor, 2015, p.5).

Hence, the consumer's path to purchase has become more complicated and less predictable. Driven by the "explosion of connectivity" and the omnichannel impulse, as Zorrilla (2015, p. 128) argues, two major phenomena, named "showrooming" and "webrooming" have emerged, which can be considered special forms of channel hopping (Morschett, Schramm-

Klein, Swoboda, & Zentes, 2013, p. 14). These behavioral trends "have been softening the line between B2C e-commerce and physical shopping experience in retail" (yStats.com, 2015, p. 3). In the following section, those two opposing phenomena that describe consumer behavior patterns in relation to physical and virtual stores (Zorrilla, 2015, p. 128), as well as a more recently discovered purchase pattern, named "boomerooming", are explained.

2.2.3.2.1. ROPO or webrooming

The so-called ROPO (Research online, purchase offline) effect describes the consumer behavior of researching relevant product information on the Internet to qualify the buying decision, before deciding to buy the product in the physical channel, e.g. in a local store (Bach & Treiß, 2015, p. 65). This trend is also referred to as *webrooming* as customers consider online shops or platforms as a showroom to view products and obtain more product details without purchasing on the Internet (Zorrilla, 2015, p. 128). In 2014 Nielsen asked 30,000 consumers in more than 60 countries about their buying behavior; the results of Nielsen's global survey of e-commerce report that 60% of global consumers with Internet access look at products online before purchasing them in a physical store (Nielsen, 2014, p. 18). ROPO customers may feel insecure buying online or they prefer seeing the product in real while enjoying the in-store experience (Zorrilla, 2015, p. 128). In addition, ROPO can refer to online purchases which are picked up in a store, as this procedure also implies the change between two different channels during the same purchase process.

A further development of the ROPO effect is the so-called DOROPO trend, which stands for "Discovery online, research online and purchase offline". It is characterized by using digital media to become aware of a potential purchase and to inform exhaustively online before entering a physical store to realize the purchase (Experian Marketing Services, 2013, p. 50). Hence, the control of the purchase lies with the user who searches actively online for

information of products or services he is interested in, while he or she tends to disregard traditional brand communication.

2.2.3.2.2. Showrooming

Showrooming is the reverse of *webrooming* or the (DO)ROPO effect. It represents the act of window shopping at a physical store prior to buying a product online for a better price – either at home or while still in the store from a mobile device (Cammorata, 2012, p. 180). Thus, it describes the trend toward treating physical stores as showrooms, i.e. not as places to make a purchase but to examine and test products before buying online, often times from other retailers at a better price (Pride & Ferrell, 2014, p. 404). According to Nielsen's global survey (2014, p. 18), more than half of global consumers with Internet access (51%) have checked-out products in advance in a brick-and-mortar store before purchasing them online. This way customers may perceive reducing the risk of buying a product by seeing, touching, or trying it in an establishment first, while, in addition, acquiring it at a more attractive price (Zorrilla, 2015, p. 128).

2.2.3.2.3. Boomerooming

In 2014 a research by the web agency RedSnapper revealed a new type of consumer behavior, which combines elements of *webrooming* and *showrooming* - they introduced the term *boomerooming* for this phenomenon. Boomerooming describes the behavior of customers who, first, research an item on the Internet (online), visit a physical store to see, feel and try the product afterwards (offline) and then return to the web to make their purchase online (Kyrkos, 2014, para. 6). RedSnapper conducted a survey with British consumers and found that 62% had already followed this shopping behavior pattern:

> Our research has revealed that consumer trends are more complicated than many experts would have us believe. To simply say that more customers are willing to pay increased prices on the high street for the sake of convenience does not seem to be true. More consumers are

> researching products online in the first instance and making the journey to the physical store to see it, touch it and try it for real. Once they're happy, it's back online to seal the deal.

What UK consumers most disliked about shopping online was that they were unable to see, touch or try products before purchasing them. Boomerooming allows consumers to reunite the advantages of stationary and online commerce, researching a product online, testing it in-store and buying it online for the lowest price possible.

According to Zorrilla (2015, p. 127) the above presented phenomena result from the omnichannel trend. Euromonitor International (2014, p. 1) argues that as "consumers continue to blend their off-line and on-line activities, from "showrooming" and retail apps to sofa shopping and click-and-collect, the lines between internet retailing, e-commerce and physical retailing are becoming increasingly blurred". In consequence, the consumer's buying process has become more flexible and sophisticated as connected consumers make use of a wider range of channels while shopping (Deloitte, 2014, p. 8).

Findings revealed that connected customers, who are dealing with the explosion of new digital channels, technologies, and products, have changed their purchasing behavior in significant ways (Aparicio & Zorrilla, 2015, p. 104)**.** In response to the portrayed changes, such as webrooming, showrooming, and boomerooming, the model of the *Consumer Decision Journey* (CDJ) was developed and adopted in different forms by several authors and institutions (Deloitte, 2014; Court, Elzinga, Mulder, & Vetvik, 2009; The Economist Intelligence Unit, 2015). It offers a new innovative viewpoint of the buying process and is explained in further detail in the following section.

2.2.3.3. The cross-channel consumer decision journey in the digital age

As previous literature does not offer a basic definition of the consumer decision journey yet, for the examination of the investigation problem the present study refers to a circular buying

process model, which is triggered by a consumer's need and characterized by the phases from the pre-selection of different purchase alternatives (phase 1), the active evaluation of these and other purchase alternatives (phase 2), the actual purchase (phase 3) and, finally, the post-purchase phase as well as a potential repurchase through the consumer (phase 4). The customer journey describes the respective cycles a customer passes through before deciding to acquire a product (Court, Elzinga, Mulder, & Vetvik, 2009). It involves all touch-points of a consumer with a brand, a product or a service (Skinner, 2010, p. 223). Those interaction points may include direct contact between customer and company, e.g. website, newsletter, commercials, banner, etc., and indirect, i.e. touchpoints to gather experience, opinions of others regarding a brand, product or service, e.g. review sites, blogs, social media, etc. The omnichannel shopping journey is non-linear, as consumers tend to circle back to different touchpoints in their research instead of taking a sequential path to purchase (TeleTech, 2015, p. 3). They barely move through a marketing funnel on a straight path, but might for example research a product on their mobile phone, visit the store to try it and order it online afterwards via a computer, constantly changing channels of interaction with the product or brand (Bonchek & France, 2014, para. 4). The cross-channel model of the customer journey, thus, is the result of the increasing variety in touchpoints and devices customers can use to interact with a brand during their buying decision process. It moves from the traditional perspective of a straightforward buying process towards a non-linear shopping cycle including numerous channels between which customers switch back and forth within their purchase journey. Cundari (2015, p. 46) argues "we are witnessing a customer decision-making process that has evolved into a fluid, customer-controlled journey. While it still travels through a variety of stages, each step is now influenced by multiple factors." As "the new customer path to purchase is much more winding and sophisticated" (Frost, 2015, para. 3-11), the model of the sales funnel is nearly obsolete today. Frost (2015) explains that even after radio and television

had entered the marketing area, the sales and marketing process was still the same, despite the change of the medium. It remained a linear process in which marketers had a considerable impact on consumers' purchase decisions. With the advent of the Internet, consumers have gained in options and increasingly determine the process themselves, searching autonomously for product information and exchanging experiences with other consumers. Prospective customers dispose of the means to engage with brands at various points in the process. The once "linear, guided process is now a complex, non-linear journey", Frost states (2015, para. 10). This new path to purchase is shaped by the individual characteristics of each consumer. Nevertheless, certain phases can be identified within a customer's journey, which show parallels to the stages of the sales funnel and the buyer's decision process. Steven Noble, senior analyst at Forrester Research, divides the path to purchase into four different phases (Noble, 2010, para. 5-8):

1) *Discover*

During this phase, which is also referred to as the initial consideration stage, the customer does not consider himself as shopping, but rather unconsciously scans the marketplace and eventually becomes inspired by a product (Van Delft, 2013, p. 20). For example, the customer revises their Facebook page and discovers a picture of new sports shoes a friend has shared; thereafter he begins considering buying a new pair for him or her as well. Similar to the traditional buying process concepts, the customer journey, as a circular process, assumes that purchase decisions are triggered by the recognition of a need. At this stage, consumers form a pre-selection of possible purchase alternatives (consideration set), which represents the starting point of the purchase decision and includes brands and products, which a consumer based on past experiences takes into consideration (Court, Elzinga, Mulder, & Vetvik, 2009).

2) *Explore*

In the second step, the personal pre-selection is actively evaluated by the consumer who decides which products and brands they will consider for their purchase decision. In contrast to the traditional funnel models, the consumer does not limit himself or herself to their first consideration set, but possibly takes additional new brands and products into consideration which he or her has discovered during their path to purchase, or eliminates through new experiences and information brands or products as relevant alternatives for their buying decision (Court, Elzinga, Mulder, & Vetvik, 2009). Hence, the second phase of the purchase journey, as defined in this model, combines the second and third stage of Kotler's five phases buyer's decision process: the information research and the evaluation of alternatives. After consumers have been inspired by a product or service, they develop a buying intention and may start searching actively for information about the purchase. After the information search, consumers begin with the evaluation of the discovered alternatives, narrowing down the choices and comparing certain attributes (Van Delft, 2013, p. 20).

The process of information search has been altered substantially by the increasing access to the Internet, user-generated content, social media and mobile devices. The Internet provides customers – whenever and wherever - with much better access to information and retailers than other sales channels, argue Muller et al. (2011, p. 12). The Global Web Index found that in 2014 in average 31.75% of global consumers have searched online for a product or service. Supplier and manufacturer websites, price comparison websites, recommendations from other consumers or friends through review sites and social media, product ratings, blogs or discussion forums are all important sources of information. According to a study by Ratchford, Talukdar, and Lee (2007), the Internet is replacing traditional information sources as consumers' budget of time, which was in the past used for visiting a retailer in person or reading print media, is now used for the online research.

Moreover, the role of mobile internet as a source of information has gained in significance over the last years. For example, via mobile devices and internet access via smartphones, consumers can compare price tags in stationary stores with prices online, which influences the buying behavior (Broeckelmann & Groeppel-Klein, 2008).

For decision-making consumers increasingly trust in social media, family and friends, experts or independent bloggers. Moreover, they use comparison sites to gain information and experiences about quality, price and customer service (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 66). Muller et al. (2011, p. 66) highlight the impact social influence exerts on consumers in the digital environment in the form of online reviews and online social networks, as well as offline sources: "The digital environment allows consumers to tap into recommendations and information from a much wider group of consumers, including people they do not know personally" (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 66).

3) Buy

The third phase of the consumer decision journey describes the completion of the purchase whether in a store, online or mobile. After having collected information and assessed alternatives, consumers determine which product or service they will purchase at which price from which supplier (Van Delft, 2013, p. 20). At the moment of the purchase, the buying decision is made, which can be influenced decisively at the point of sale by various factors, such as deals, product packaging, tangible attributes of the item (scent, feel, look), or the sales staff (Kotler & Armstrong, Principles of Marketing, 2012, p. 154).

The possibilities of completing a transaction in terms of channels and media have increased in the digital environment and with the emergence of e-commerce: to traditional offline channels, such as catalogs, call center, TV or brick-and-mortar stores, have been added new online channels and digital devices like computers, smartphones or tablets. This progress,

regarding the increasing mobility and 24 hours access via the Internet and online commerce, allows customers to complete a transaction wherever and whenever they want - on-the go or at home (Muller, Damgaard, Litchfield, Lewis, & Hörnle, 2011, p. 75).

4) Engage

After completing the transaction, the consumer enters the post-purchase phase and gains product experiences (Court, Elzinga, Mulder, & Vetvik, 2009, p. 3). These experiences influence further purchase decisions in the same product category, which is why positive experiences can lead to a habituation and, thus, shortening of purchase decisions. Loyalty is generated in form of repurchase behavior. Satisfied or delighted customers may become active loyalists (Court, Elzinga, Mulder, & Vetvik, 2009, p. 6) who spread their positive experience and opinion, for example via product ratings or on online retail platforms like Amazon. Depending on the individual characteristics of the customer, he or she may evaluate his or her purchase experience and share his or her opinions about the service and product with others, either through personal contact, telling friends and family about their purchase, or increasingly in the online landscape, via social media, blogs or rating and review sites. The consumer has multiple channels to choose from to reach companies – offline as well as online (Van Delft, 2013, p. 20). The Internet and the Web 2.0 with its bidirectional communication character, have opened new ways for consumers to share their opinion with other users and the provider, e.g. in social networks. Consumers have the power to act as opinion leaders and convince other users via blogs or review entries of a product or brand, which makes it even more important for companies to address those “advocates” and bound them to the brand (Van Delft, 2013, p. 20). However, the enormous reach of social media and rating sites etc., not only allows to widely share positive comments about a recent purchase broadly, but also negative experiences and complaints can be distributed instantly, which creates negative viral advertising difficult to control by marketers (Westcott Alessandri, 2014, p. 35).

At this stage brands can establish long-term customer loyalty by reacting to complaints and offering adequate after sales service to their customers. Court et al. (2009, p. 6) argue that the "post-purchase experience shapes customers' opinion for every subsequent decision in the category". Hence, the consumer decision journey is an ongoing cycle with no end. The experiences made at all touchpoints shape future purchases.

Furthermore, the fulfilment of the purchase (delivery of the product) forms part of the post-purchase buying experience (Court, Elzinga, Mulder, & Vetvik, 2009). Before the emergence of e-commerce, the possibilities of receiving the purchase were limited to either taking it directly home from a store or receiving it via mail when buying through catalog, for example. The pick-up principle was dominant, i.e. the customer assumes the transport of the purchase from the point-of-sale to home; in contrast, e-commerce underlies the delivery principle; the product is brought by the provider to the customer (Schögel, 2012, p. 63). The phenomenon of "multi-channel commerce" has also led to implementing multiple paths of delivery, generating more flexibility for consumers who today can buy and pick up products almost anywhere. Retailers increasingly offer cross-channel solutions, allowing their customers to choose from a variety of options to obtain the product: collecting the item in store, having it delivered to the nearest store to pick it up there (pick-up in-store), as well as having it delivered at home or to a pick-up point (Van Delft, 2013, p. 20). A by retailers already implemented instrument in order to merge the traditional brick-and-mortar store and e-commerce together, is the so-called "Click-and-collect" service, or "buy online, pick-up in store" (Froböse & Thurm, 2015, p.131): Customers have the possibility to pick up their online purchases in an associated physical store. This way retailers persuade customers to visit the store, while offering them several advantages, e.g. the option to return a product in-store at once, convenience, and no shipping costs (Froböse & Thurm, 2015, p.131).

The omnichannel concept describes a shopping behavior which is non-linear but corresponds to the model of the customer decision journey, using different touchpoints, even simultaneously, along the path to purchase. The hybrid shopping trends showrooming, webrooming, and boomerooming have emerged as symptoms of the changing consumer behavior. Furthermore, the presented characteristics of the modern consumer explain the impact of the digital evolution on today's consumers. These characteristics and attitudes have shaped the omnichannel shopper; modern consumers are, for example, always connected, especially through mobiles, which influences the channels and touchpoints used by omnichannel customers during a purchase. Also, these consumers demand a higher consistency between the different channels. In order to explore the shopping behavior of postgraduate students in the cities of Medellin and Münster with the aim of detecting omnichannel buying patterns, this study searches for signs of these characteristics and conducts in the consumer behavior of the two samples.

3. METHODOLOGY

3.1. RESEARCH DESIGN

In this chapter the research method and technique implemented in order to obtain empirical results for further analysis as well as the methodological procedure and research variables are presented.

3.1.1. Type of investigation

The purpose of this research is exploratory as it aims at identifying key variables and elements of the omnichannel trend, which has emerged as a new phenomenon in recent years. There has been little scientific research on omnichannel shopping behavior trends concerning the use of multiple touchpoints and the switching between multiple channels along the consumer path to purchase, as well as the use of digital devices for purchase-related activities. Based on a review of previous literature and studies related to the omnichannel phenomenon, common patterns in the buying behavior of consumers and relevant variables which indicate omnichannel conducts shall be detected. The main elements and buying behaviors shaping the omnichannel concept are portrayed and subsequently examined more closely by means of an empirical study. This way, a more broaden understanding of the phenomenon is pursued in order to provide researchers with a foundation for future systematic investigation. As a result of the exploratory study, new hypotheses and possible research questions for future research shall be developed and suggestions given concerning the selection of statistical tools to realize further investigation.

3.1.2. Research method

Consequently, this study follows an inductive approach to research. In inductive reasoning, the “researcher begins by collecting data that is relevant to the topic of interest”, explains Blackstone (2012, p. 19). The researcher then looks for patterns in the data in order to

formulate a theory that could explain those patterns (Blackstone, 2012, p. 19). Thus, in an inductive approach the "researcher moves from a set of particular observations to a more general set of propositions about those experiences" (Blackstone, 2012, p. 19). Hence, "the researcher moves from data to theory, or from the specific to the general" (Blackstone, 2012, p. 19). Finally, inductive research leads to a set of testable hypotheses for following deductive investigation (Blackstone, 2012, p. 19). Within the scope of this study data about potential omnichannel consumer behavior, as identified in prior studies, is collected by means of a cross-cultural survey. The obtained data is then analyzed regarding common patterns. The results provide the basis for the subsequent development of new hypotheses and theories related to the investigation problem.

3.1.3. Method of data collection

This investigation implements a quantitative research method. According to Wyse (2011, para. 4), quantitative research, oriented in gathering information, serves to "quantify the problem by generating numerical data or data that can be transformed into useable statistics". Quantitative analysis focuses on "describing a phenomenon across a larger number of participants and thus provides the possibility of summarizing characteristics across groups or relationships", explains Rhodes (2014, para. 5). "It is used to quantify attitudes, opinions, behaviors, and other variables, in order to generalize results from a larger sample population", states Wyse (2011, para. 4). With the help of measurable data it serves to uncover patterns (Wyse, 2011, para. 4). "Quantitative data collection methods include various forms of surveys, face-to-face interviews, telephone interviews", among other tools (Wyse, 2011, para. 4). This study implements an online questionnaire in order to collect information from a larger group of participants about their personal attitudes and shopping conducts.

3.1.4. Instrument of data collection

For the purpose of this empirical study, a cross-cultural survey was conducted with master and postgraduate students from two different universities and countries with the aim of gathering primary quantitative data for analysis. The term ‘survey’ is commonly applied to a research methodology designed to systematically collect data from a specific population, or a sample from that population and typically utilizes a questionnaire or an interview as the survey instrument (Leon, 2003, p. 11; Robson, 1993, pp. 228-232). A survey allows to obtain a larger amount of responses by asking the same questions in the same way to the participating population; these responses are then analyzed implementing statistical techniques to detect common patterns (Robson, 1993, pp. 228-232). Within the scope of this investigation, a self-administered web-based questionnaire was used to obtain information from the previously defined sample. A questionnaire is a data collection technique that utilizes a “standardized set of questions, which allow respondents' answers to be systematically compared and/or contrasted” (Zikmund, Babin, Carr, & Griffin, 2013, p. 217). The implemented questionnaire is exploratory in nature as it was used to collect data about possible variables of interest and was not aiming at testing or quantifying hypotheses. The questionnaire was completed online by the respondents on their own without any interaction with a second person. The web-based questionnaire yields a range of benefits, including lower costs and providing around-the-clock access (Nair, 2013, p.19). Self-administered online questionnaires enable researchers to reach a large number of potential respondents in a variety of locations and in a relatively short time frame, but typically show lower response rates than other methods such as interviews or researcher-administered questionnaires (Katsirikou & Skiadas, 2010, p. 293), often produced by privacy concerns, technical issues (e.g. internet connection), and the absence of personal influence by an interviewer, who is able to motivate the respondent (Nair, 2013, p. 19). To account of the low return rate, the online questionnaire

was sent per email and via social networks to a large number of postgraduate and master students in order to reach a sufficient number of responses.

The advantage of an online questionnaire is that results are collected by the survey tool used and the data can be exported in electronic form immediately after the data collection has been completed without the need for any data input before analysis (Katsirikou & Skiadas, 2010, p. 293). Moreover, according to O'Neill (2004, para. 4), online questionnaires are likely to obtain a higher number of responses than paper-based questionnaires and reduce respondent errors. As all questions were marked as compulsory, the program reminds respondents with an error message of incomplete answers. The use of a web-based survey preserves anonymity and confidentiality given that the handwriting of the respondent is not registered. In the creation of the survey it was determined that the IP address of the participant will not be saved in order to guarantee absolute anonymity and to prevent the traceability of the user. In order to increase response rates, an incentive in form of a drawing of an iTunes coupon among the participants was used. The respondents were given the choice to enter their email address in a second survey after they had completed the questionnaire, if they wanted to participate in the raffle. All participants, who indicated their email, were entered in a random drawing. The winner was notified via email and received the coupon. This incentive was selected due to its affordability and the easy way of implementation, taking into account that a raffle is less effective in improving the response rate than a promised incentive for all participants (CDC, 2010, p.2). For the prize draw a separate questionnaire in the corresponding languages was designed and its link integrated at the end of the main survey to assure that the information (email addresses) is saved apart from the respondents' answers, preserving absolute anonymity this way. However, this incentive did not improve the response rate as anticipated; due to the limited resources it was not possible to offer a more successful incentive.

3.1.4.1. Survey Tool

The online questionnaire was designed with the survey software tool LimeSurvey. LimeSurvey is a free and open source online survey application written in PHP based on a MySQL, PostgreSQL or MSSQL database, distributed under the GNU General Public License (LimeSurvey, 2016). As a web server-based software it enables users through a web interface to develop and publish online surveys, collect responses, create statistics, and export the resulting data to other applications, such as statistical software (e.g. SPSS) (LimeSurvey, 2016). In particular, it offers enhanced import and export functions to text, CSV, PDF, SPSS, R, queXML and MS Excel format. The survey tool was selected as it offers ways of designing questionnaires fast and easily with only little html knowledge required while imposing no restrictions on the number of questions or answer options and enabling the user to collect micro data, allowing more complex analyses this way (LimeSurvey, 2016).

3.1.4.2. Design of the data collection instrument

The design of a questionnaire is a systematic process consisting of three phases:

1. The pre-construction phase

2. The construction-phase

3. The post-construction phase

During the pre-construction phase the required information for achieving the research objective is specified and the appropriate survey technique selected (Bajpai, 2011, p. 89). In the construction-phase the first draft is produced after determining the questions, structure and layout of the questionnaire. Afterwards, in the post-construction phase, the pretest of the questionnaire is carried out and the final draft designed based on the inputs obtained from the pilot study. Finally, the questionnaire is administered and the responses are collected (Bajpai, 2011, p. 72).

3.1.4.2.1. Pre-construction phase

After an extensive review of prior studies and literature, as well as own observation and experience, a range of components were identified which characterize the omnichannel shopping behavior. The conception of the questionnaire is based on the identified behaviors and components, which are presented in *Table 1*. The table gives an overview of conducts which suggest omnichannel buying patterns, the corresponding working definitions, and previous investigation in this direction.

Table 1. *Components of investigation*

Component of investigation	Antecedents	Research definition of the component	Research question
Accessing digital devices	DigitasLBI	The ability of making use of an electronical gadget	Which of the following do you own or have access to?
Usage of mobile devices during a purchase	PwC, Deloitte, Experian Marketing Services	Activities related to the purchase process for which a person uses their smartphone or tablet	For which of the following purchase-related activities do you use your mobile devices (smartphone/tablet)?
Usage of mobile devices in-store	DigitasLBI, IDC Retail Insights, PwC	Activities related to the purchase process for which a person uses their smartphone or tablet while inside of a store	While in-store, for which of the following activities have you already used your mobile device (smartphone/tablet)?
Usage of multiple channels in the buying process	Oracle	The amount of different channels employed for the majority of purchases in order to discover, investigate, buy and evaluate a product/service: e.g. internet, brick-and-mortar store, television, radio, catalogue or newspaper, email, telephone, etc.	When you want to buy a product or service, how many different channels do you typically use during your purchase process?
Use of online and offline sales channels according to product category	Nielsen, Experian Marketing Services	Online and offline purchases depending on the type of product acquired	Which of the following product categories do you buy via online or offline channels and which do you buy via both?

Cross-channel buying	PwC, Deloitte, Nielsen	The use of different channels for a single purchase	Have you already followed one of these shopping behavioral patterns? - After testing a product in-store, I bought it on the Internet. - First, I researched a product online, afterwards I tried it in-store, but bought it over the Internet finally. - I purchased a product via my smartphone/tablet when I was not at home. - I purchased a product online and picked it up in a local store. - After researching a product online, I bought it offline (e.g. in-store, catalog)
Multi-channel shopping	DigitasLBI, PwC, Google, The Economist Intelligence Unit	The general use of several channels for the distinct phases of the customer journey	Through which channel have you already a) discovered products? b) searched for more information about products? c) purchased products? d) evaluated or commented on your shopping experience?
Multi- and cross-channel shopping	DigitasLBI, PwC, Google, Zorrilla	The use of several channels for the different phases of the customer journey and the switching between these channels during the last purchase	When you think of your last purchase, through which channel did you a) Discover the product? b) Search for more information about the product? c) Purchase the product? d) Evaluate or comment on your shopping experience?
Shopping experience	The Economist Intelligence Unit	The entirety of the interactions a customer has with a company and its products and how the customer feels about the company and its offerings	Regarding a positive customer experience online and offline: how important are the following elements to you? • Ability to interact with the company over multiple channels • Access to more in-depth product information in stores through technology • Consistency of product information and price across channels

			• A more personalized experience with relevant offers and recommendations based on my interests • Ongoing engagement with the company after the purchase has concluded • Company representatives have my client information across all channels • Option to pick up delivery in closest store • Option to return online purchase and get my money back in-store • Contactless payment methods

3.1.4.2.2. Construction phase

Based on the presented components of investigation possible variables for exploring the omnichannel phenomenon were defined and systematized according their type and measurement level. In addition to the behaviors and attitudes of interest, sociodemographic variables were included in order to classify the sample and detect interrelations between behaviors or attitudes and sociodemographic characteristics.

The following table (*Table 2*) gives an overview of the identified variables, which were included in the online questionnaire in order to detect common patterns and possible relations among the samples. The study variables were assembled in different dimensions according to the research subject. In the table every variable is defined and its type and scale of measure given:

Table 2. *Research variables grouped by dimensions*

Dimensions			
A: Use of mobile devices during the purchase process			
Variable	**Definition**	**Type**	**Scale of Measure**
A1. Possession of / Access to digital devices	The ability of making use of an electronical gadget	Qualitative	Nominal
A2. Mobile device usage during a purchase	Activities related to the purchase process for which a person uses their smartphone or tablet	Qualitative	Nominal
A3. Mobile device usage in-store	Activities related to the purchase process for which a person uses their smartphone or tablet while inside of a store	Qualitative	Nominal
B: Use of multiple channels along the path to purchase			
Variable	**Definition**	**Type**	**Scale of Measure**
B1. Number of channels used during the buying process	The amount of different channels employed for the majority of purchases in order to discover, investigate, buy and evaluate a product/service: e.g. internet, brick-and-mortar store, television, radio, catalogue or newspaper, email, telephone, etc.	Quantitative	Ordinal
B2. Use of sales channels according to product category	Online and offline purchases depending on the type of product acquired	Qualitative	Nominal
B3. Cross-channel buying patterns	The use of different channels for a single purchase	Qualitative	Dichotomous
B4. Multi-channel shopping journey	The general use of several channels for the distinct phases of the customer journey	Qualitative	Nominal
B5. Multi- and cross-channel shopping journey (last purchase)	The use of several channels for the different phases of the customer journey and the switching between these channels during the last purchase	Qualitative	Nominal
C: Positive shopping experience			
Variable	**Definition**	**Type**	**Scale of Measure**
C1. Positive shopping experience	Elements which customers expect from a company to enjoy the purchase process	Quantitative	Ordinal
D: Socio-demographic Variables			
Variable	**Definition**	**Type**	**Scale of Measure**
D1. Age	The length of time a person has lived	Quantitative	Ordinal
D2. Gender	The state of being male or female	Qualitative/ Categorical	Nominal
D3. Occupation	An activity that serves as one's regular source of livelihood; a person's job or profession	Qualitative	Nominal

Based on this table the questionnaire was designed, including 18 different questions grouped into four different dimensions. The first section contains questions regarding the ownership and usage of mobile devices, which is supposed to be an easy start into the questionnaire. The second section contains the highest number of questions regarding the usage of multiple channels along the customer journey and thus consumes most of the time invested for the completion of the questionnaire. The third section only contains one question concerning the positive shopping experience. In order to analyze the importance of the elements of the shopping experience, a Likert scale was used (very high, high, medium, low, very low). In the last section the respondent is questioned about their sociodemographic characteristics, such as age, gender and occupation. This part was included in the end, as it signalizes the participant that they have reached the final page and thus it may prevent them from dropping out before answering all questions.

Another advantage of using a web-based survey is the option to customize it individually. Given the cross-cultural design the survey confronted linguistic differences. In order to adapt the survey to the participants and increase the response rate this way, the questionnaire was provided in two different versions for each country in the corresponding language. Thus, the questionnaire was designed in two languages (German, Spanish) with individual URLs and IDs, to ensure that the obtained responses are saved separately for each country. In addition, LimeSurvey enables the user to implement conditions for questions via a branching logic in order to customize the survey further to the individuals. Hence, conditioned questions were included, which only appeared in case the participant had chosen a specific answer before, preventing this way high dropout rates due to redundant questions which may have a negative effect on the participant's motivation. The web-survey also offers the possibility of saving answers in case the questionnaire has not been completely filled out yet in order to allow the respondent to continue at a later moment irrespective of changes of the device. LimeSurvey,

furthermore, allowed for the setting up of a security question to prevent unauthorized access to the survey. In order to prevent that the same person completes the questionnaire more than once, cookies were placed. As a motivational factor the web-based survey shows a progress bar at the top of the page in order to indicate what percentage of the number of questions the respondent has already completed. Moreover, LimeSurvey implements a responsive template, which facilitates displaying the survey on mobile devices. As the sample, comprising in its majority "digital natives", tends to show a higher usage of smartphones and tablets, this option may have impacted the response rate in a positive way.

As all questions of the questionnaire are defined as mandatory, someone who might skip one question is made aware of it as an error message pops up. After all questions have been completed, the respondent is forwarded to the last page, thanking for their participation and offering the option to obtain more information about the study via email. The link to the separate questionnaire for the prize draw is clickable which leads the respondent to a new survey where he or she is asked to enter his or her email address in order to participate in the prize draw. All questions with answer options are included in the appendix of this work (see Appendix 13).

3.1.4.2.2.1. Process of translation and back translation

Given the cross-cultural character of this study, the survey was administered in multiple languages. The questionnaire was translated from English to German and Spanish in order to conduct research in Colombia and Germany. For this study the technique of back translation was adopted. In the method of back translation, the original instrument is translated first by a bilingual translator from the source language to the target language, and then another bilingual translator independently translates this back into the source language (Weidmer, 1994, p. 1229). Hence, a bilingual person translated the original questionnaire into German and Spanish. Another person blind to the original survey then back translated the new survey

into the source language and compared it to the original document in order to identify discrepancies indicative of ambiguous wording within the original survey or other problems and in order to check the validity of the translation.

3.1.4.2.2.2. Data preparation: Questionnaire coding

According to Zak (2014), *"*coding is an analytical process in which data is categorized to facilitate analysis." Coding refers to the transformation of data into a form understandable by computer software, as the classification of information is an important step in preparation of data for computer processing with statistical software (Zak, 2014). In order to facilitate the subsequent data processing via statistical software, a codified questionnaire was designed. In this type of questionnaire the expected answers are given in code numbers (Pathak, 2008, p. 112). Hence, every answer alternative of a question is represented by codes like 1, 2, 3 etc.

3.1.4.2.2.3. Sampling technique

In order to select the sample for this study, non-probability sampling techniques were used. Non-probability sampling (or non-random sampling) provides a range of alternative techniques that help researchers to select units from a population that they are interested in studying; collectively, these units form the sample that the researcher studies (Saunders, Lewis, & Thornhill, 2009, p. 233). Non-probability sampling implies that samples are selected based on the subjective judgement of the researcher, rather than random selection (i.e., probabilistic methods) as with probability sampling techniques**;** relying on available subjects is called "convenience" sampling (Babbie, 2016, p. 195). As the restrictions in time and resources did not allow for gathering representative data of the whole population in Germany and Colombia via random sampling, **convenience sampling** was selected as a non-probability sampling method for the purpose of this investigation which involves an easier, faster and cheaper procedure than probability sampling. Hence, master and postgraduate students from the two universities were chosen due to their easy accessibility and proximity for researchers

at a bachelor level. Convenience sampling is not normally representative of the target population because sample units are selected based on easy availability and not randomly, which leads to the presence of bias (McCormack & Hill, 1997, p. 55). However, given the exploratory nature of this study, non-probability sampling is particularly useful in order to find out, in a fast and inexpensive way, if the omnichannel phenomenon constitutes an existing problem worth examining in more depth. If the results obtained in this study suggest further research to a larger extent, probability sampling techniques may be used in the follow-up studies in order to reach more generalizable conclusions for the total population. This sampling technique is useful in documenting that a particular quality of a phenomenon occurs within a given sample and for detecting relationships among different phenomena. By means of a biased sample, including those units which are most likely to exhibit the problem, a first attempt to identify if this issue exists is made. In this case, the generation of so-called "digital natives" is, according to prior studies, the most likely age group to conduct omnichannel buying patterns, especially due to their general fast adoption of technological innovations. Master and postgraduate students from the two universities correspond to this group of population and thus are most appropriate to follow the omnichannel trend.

In an ideal sample which was randomly selected, every sociodemographic factor concerning age group, gender, educational level and income level of a country's population would be equally represented to reach conclusions about shopping behavior patterns across all inhabitants. The students of this sample belong in their majority to a specific range of age and are likely of the same generation. Moreover, their educational level is very similar. Furthermore, the private nature of the Colombian university suggests an overrepresentation of individuals belonging to the middle- and upper middle social stratum. The cultural environment and traditional influences may also exert an impact on the consumer behavior of the respondents of different nationalities. For example, postgraduate students in Colombia

predominantly have an occupation and thus generate income, whereas in Germany master students are mainly full-time students who do not generate enough income to live from. The relative higher purchasing power could affect the way purchase decisions are made. Further limitations resulting from this convenience sampling technique are discussed in a later chapter.

3.1.4.2.2.4. Description of the sample

The cross-cultural survey was carried out at two universities in two different countries: the University of Applied Sciences in Münster (Germany), and the Pontifical Bolivarian University in Medellin (Colombia). Master and postgraduate students of these universities were questioned about their shopping behavior by means of a self-administered web questionnaire. In this section, the sample is further specified by describing the socio-demographic environment of the respondents.

Münster

The University of Applied Sciences is situated in the city of Münster in North Rhine-Westphalia, Germany. At the end of 2014 the city population reached 302,178, with 58,146 students living currently in Münster (Stadt Münster, 2015). 52.5% of the city's inhabitants are female, and 47.8% male (IT.NRW, 2015). According to the latest data based on the census conducted in Germany in 2011, the average age in Münster was 41 years in 2012 and is estimated to rise up to 42.1 years in 2030, driven by the declining number of younger age groups and increase in the older groups (Wegweiser Kommune, 2016). The most important economic branches in and around Münster are engineering, construction, food industry, and the service sector health and social affairs.

During the winter semester 2015/16 (September 2015 – February 2016) 13,974 students were enrolled in the public University of Applied Sciences. The majority of students is male

(58.86%), while 41.14% of the students are women (Fachhochschule Münster, 2016). The university currently offers 87 bachelor and master study programs in 12 faculties and 5 different disciplines, namely Design & Architecture, Health and Social Affairs, Teacher Training, Engineering, and Business Administration (Fachhochschule Münster, 2016). The number of master students enrolled in the 38 offered master programs amounts to 2,838 of whom 60.9% are male and 39.1% female students (Fachhochschule Münster, 2016). The average age of master students at the University of Applied Sciences in Münster is 28.25 years (Fachhochschule Münster, 2016).

Medellin

The Pontifical Bolivarian University is a private university located in the Municipality of Medellin, in Antioquia, Colombia. Medellin is the second-largest city in the country with a total population of 2,464,322. 47.1% of the inhabitants living in Medellin are male and 52.9% female (Dirección de Censos y Demografía (DANE), 2010). The median age in Colombia is estimated to 29.3 years (The World Factbook, 2016). 139,506 of the inhabitants in Medellin are students matriculated in university, of which 12,206 were enrolled in postgraduate programs in 2014 (Ministerio de Educación Nacional, 2015). The most important industrial sectors in Medellin are the textile industry, chemical products, and the food industry (Cámara de Comercio De Medellín para Antioquia, 2012).

The Pontifical Bolivarian University offers 124 academic specializations, 47 Master's degree programs and 9 doctoral programs (Universidad Pontificia Bolivariana, 2016). The number of students enrolled in postgraduate programs amounts to 2,446, of whom 50.5% are female and 49.5% male. The average age of postgraduate students at the UPB is 33 years (Universidad Pontificia Bolivariana, 2016).

3.1.4.2.3. Post-construction phase: Implementation of the data collection instrument

In the post-construction phase the questionnaire was implemented, and optimized with the help of the results obtained during the pilot study. The procedure of data collection is described in this section.

3.1.4.2.3.1. Pretest

The first survey draft was developed after a review of existing studies dealing with the omnichannel phenomenon. The derived questions and answer options were adapted and expanded in accordance with the specific objectives of this investigation. In order to test the questionnaire an empirical pilot study was carried out with a sample chosen by convenience sampling as this allows for obtaining basic data and trends in a fast and easy way without the complications of using a randomized sample. The questionnaire was completed between 21 – 26 February 2016 by 12 testers of different age, gender, and occupation, in order to detect potential problems in the survey design or language, as well as irregularities in the answer options. The testers were also asked to give their opinion on the questionnaire design in order to optimize it and make it as convenient as possible for the participants. This way, difficulties in filling out could be detected which might affect the response rate in a negative way. With the help of the respondent's answers and remarks the questionnaire could be improved and the final version designed. A revision of the results obtained in the pretest showed no particular anomalies which might cause critical difficulties in the realization of the final survey. The questionnaire was completed by all participants of whom 50% were female and the other half male. The average age was 35.9 and 46.15% of the respondents were not employed in the moment or full-time students. In the distribution of answers no significant outliers could be detected. However, the questioned respondents remarked that the second group of questions is perceived as disproportionately long, which is why it was divided up into two different groups for the final version of the questionnaire. Furthermore, the correct transfer of the participants'

email addresses by means of a separate questionnaire was tested and a list in form of an Excel file containing all addresses exported. This is important as the prize will be raffled among all participants who indicated their email addresses within the final survey using the Excel table and an online tool, which randomly chooses one line, i.e. email address as the winner. Before sending the URL of the questionnaires to the testing group, the survey was opened in the LimeSurvey web interface so that answers could be registered. After having obtained sufficient answers, the survey was closed again and thereby the responses were archived and transferred to a separate file, ensuring this way that they will not be included in the final results of the main survey.

3.1.4.2.3.2. Procedure of data collection

A period of four weeks was determined for the data collection process. Data were gathered from 19 March – 16 April 2016 via the online survey. The self-administered and web-based questionnaires were distributed to the samples, consisting of master and postgraduate students from the University of Applied Sciences in Münster and the Pontifical Bolivarian University of Medellin, in the corresponding language via email and social networks. Overall, 60 fully completed questionnaires were collected, 30 from each university.

The data is stored in LimeSurvey and was exported after the survey had expired in the formats CSV, Microsoft Excel, PDF, HTML, and Microsoft Word. LimeSurvey also offers the possibility of exporting data in a SPSS file format in order to import it directly to the IBM SPSS Statistics software for the subsequent analysis.

3.1.4.2.3.3. Data Processing

One advantage of implementing a web-based questionnaire is that the information is immediately available in electronic form. In order to analyze the survey results, the data was directly output to the SPSS format and imported in the statistical software. SPSS (Statistical

Package for the Social Scientists) is a data management and statistical analysis tool which has a very versatile data processing capability. Furthermore, the questionnaire data was stored electronically in a spreadsheet-like table.

3.2. ANALYSIS AND PRESENTATION OF RESULTS

In this section the procedure and methods implemented for the data analysis are portrayed and the obtained results presented.

3.2.1. Method of data analysis

Given the exploratory nature of this research, this study implements Exploratory Data Analysis (EDA) as a method of analysis. According to Behrens (1997, p. 131), "Exploratory data analysis (EDA) is a well-established statistical tradition that provides conceptual and computational tools for discovering patterns to foster hypothesis development and refinement". These tools complement the significance and hypothesis tests used in confirmatory data analysis (CDA) (Behrens, 1997, p. 131). Usually, EDA is the preliminary stage for descriptive data analysis, where the formulated hypotheses are verified (Behrens, 1997, p. 131). EDA helps the researcher to reach a basic understanding of their data and the existing relations between the analyzed variables; EDA offers simple methods to organize and prepare the data, detect errors in the design and data collection, treatment and evaluation of missing data, identification of atypical cases and verification of underlying assumptions (Salvador Figueras & Gargallo, 2003, p. 1). The main objective of an exploratory study is the identification of researchable problems; it helps in achieving greater precision in the formulation of problems, gain familiarity with a phenomenon or acquire new insight into it in order to develop hypothesis (Behrens, 1997, p. 154). In order to detect patterns and reveal structure, EDA emphasizes the use of graphical techniques (Behrens, 1997, p. 134).

3.2.2. Data analysis process

a. Data preparation

The first step of the exploratory data analysis is the **data transformation**. This process includes data cleansing, recoding and the recategorization of variables if necessary.

The response records were checked in SPSS for missing data. Blank spaces were replaced by the number 99 in order to gain a better overview of the uncomplete answer sets. Concerning the questionnaire administered in Germany, it was found that eight from the 38 answer sets have not been filled out entirely; four respondents did not answer any question, two filled out the first two questions but stopped on the first page, one person filled out the whole first page and one participant stopped completing the questionnaire after the second section. The answer rate, hence, was 78.95%. There were also 38 answer sets collected from the Colombian students of which eight had not been completed entirely, representing the same answer rate of 78.95%. As every question in the questionnaire was obligatory to answer it was not possible for the respondents to skip questions. However, as the demographic factors were asked at the end of the questionnaire, the uncomplete answer sets do not contain information regarding the respondents' age, gender or occupation. As this impedes the validated analysis of the obtained results, the missing data sets were excluded from the subsequent analysis. Only the complete data sets were exported from LimeSurvey to SPSS in a next step. The data examination did not point out incorrect data which could distort the results.

As the categories in question C (*Positive shopping experience*) were defined by the researcher, SPSS automatically set nominal as the level of measurement for this categorical variables. However, the answer options represent a Likert scale (*very high, high, medium, low, very low*) and thus could be classified as an ordinal scale from 1 to 5.

In the demographic section the respondent was asked to indicate their age. As a result, the data needed to be organized first into different age groups in order to facilitate the analysis,

reducing the amount of different answers this way. The variable was recoded and the range of the new age classes defined. Afterwards it was back coded and metric was set as the level of measurement.

b. Data analysis and presentation of results

On completion of the data preparation stage the data was examined by means of bivariate descriptive statistics and graphical analysis in order to detect common patterns and anomalies in the data structure. The normality, mean, and standard deviation were examined and outlier tests carried out. In this section the demographic characteristics of the samples and the survey results are presented.

- **Demographic characteristics**

Germany

The German questionnaire was completed by 30 master students from the University of Applied Sciences in Münster. The majority of the sample were females (63.3%) and 36.7% males (see Appendix 1, Table 1). This does not represent the gender distribution of the population, resulting from the implementation of a voluntary response, and thus biased, sample. The respondents' average age was 24.87 years and thus under the average age of the population which is 28.25 years. The age range was 20-29 years (see Appendix 1, Table 2). The majority (73.3%) was currently out of work or studying full-time (see Appendix 1, Table 5). *Table 3* gives an overview of the demographic characteristics of the German master students.

Table 3. *Demographic characteristics of the German sample compared to the population*

Master students **University of Applied Sciences Münster**	**Male**	**Female**
Population	1728	1110

% population	60.9%	39.1%
Average age of the population	28.25	
Sample	11	19
% sample	36.7%	63.3%
Average age of the sample	24.87	
Occupation	73.3% Full-time student / currently out of work	

The variable "age" was checked for normality and outliers before being recoded. The boxplot analysis did not point to the existence of any outliers in the data (see Appendix 1, Figure 1). The graphic analysis of normality, including a histogram (see Appendix 1, Figure 2), a boxplot, and a Q-Q plot (see Appendix 1, Figure 3), did not show significant deviations from normality. Furthermore, the normality tests indicated that the data is normally distributed as the significance according to Kolmogorov-Smirnov lies by 0.183, and according to the Shapiro-Wilk test by 0.209; thus the p-value is greater than 0.05 and the null hypothesis is not rejected (see Appendix 1, Table 3).

Colombia

The Spanish questionnaire was filled out by 30 Colombian postgraduate students. The majority of the sample were male (56.7%) and 43.3% were women (see Appendix 1, Table 6). The respondents' average age was 29.8 years and thus lower than the average age of the population of 33 years. The age range was 22-46 years (see Appendix 1, Table 7). The majority (90%) of the sample was practicing a profession. 63.3% were employed in the directive level and 10% were currently out of work or full-time students (see Appendix 1, Table 10). *Table 4* gives an overview of the demographic characteristics of the Colombian sample compared to the population.

Table 4. *Demographic characteristics of the Colombian sample compared to the population*

Master students **Pontifical Bolivarian University in Medellin**	**Male**	**Female**
Population	1212	1234
% population	49.5%	50.5%
Average age of the population	33	
Sample	17	13
% sample	56.7%	43.3%
Average age	29.8	
Occupation	10% Full-time student / currently out of work	

The graphical analysis using boxplot, a histogram, and a Q-Q-Plot (see Appendix Figures 4-6) pointed to the existence of one outlier in the variable age (46). This outlier was not eliminated from the sample, as the indicated age is not unlikely for a master or postgraduate student in Colombia. When recategorizing the age into groups, the outlier was added to the last group of participants renamed "34 years or older". Apart from the outlier the graphical analysis did not show any significant deviations from normality. In addition, the normality tests indicated that the data is normally distributed as the significance according to Kolmogorov-Smirnov lies by 0.116, and according to the Shapiro-Wilk test by 0.058; thus the p-value is greater than 0.05 and the null hypothesis is not rejected (see Appendix 1, Table 8).

Regarding the demographic characteristics of the sample there are considerable differences apparent between the German and Colombian respondents. The German sample consists of younger participants, as the average age was 24.87 years compared to 29.8 years of the Colombian sample. Moreover, the gender distribution is different, as the majority of the German respondents were female, whereas the Colombian sample is made up of a higher percentage of male participants. Most of the German students were not working at the time

the survey was realized, but full-time students instead, whereas 90% of the Colombian students were employed or working independently. As a consequence, differences in the results obtained from the two questionnaires may also be based on these characteristics.

- **Shopping-related usage of mobile devices**

It was found that 96.7% of the German respondents own a laptop and a smartphone, 53.3% dispose of a tablet, whereas 26.7% own a desktop computer (see Appendix 2, Table 1). With the help of a contingency table it was found that all participants between 20 and 27 years and 80% of the 28-30 year olds own a smartphone (see Appendix 2, Table 2). Moreover, the 28–30 year olds show the highest percentage of tablet ownership with 80% (see Appendix 2, Table 3). 63.2% of the female respondents dispose of a tablet compared to only 36.4% of the men (see Appendix 2, Table 5).

In contrast, a lower number of Colombian respondents dispose of mobile devices as 90% own a smartphone and 36.7% a tablet. 93.3% of the Colombian students dispose of a laptop, and 33.3% of a desktop computer (see Appendix 2, Table 6). Among the Colombian participants in the age group 22-29 years, everyone has a smartphone, and 33.3% a tablet. The older the participants the lower the percentage with a smartphone as among the 34 years and older only 66.7% dispose of a smartphone. However, the older participants show the highest ownership of tablets with 66.7% (see Appendix 2, Table 7). It was also found that more female respondents have a tablet than their male counterparts, as 46.2% of the women dispose of a tablet and only 29.4% of the men (see Appendix 2, Table 8).

93.3% of the students from Münster indicated having already used their mobile device for purchase-related activities. As the main activities were detected, in the following order, “reading product evaluations or ratings”, “buying online” and “finding stores nearby”, “visiting seller’s online shop or websites” and “comparing offers and products”. Only 16.7%

indicated having used their smartphone as a mobile wallet for paying contactless in a store (see *Figure 3* and Appendix 3, Table 1).

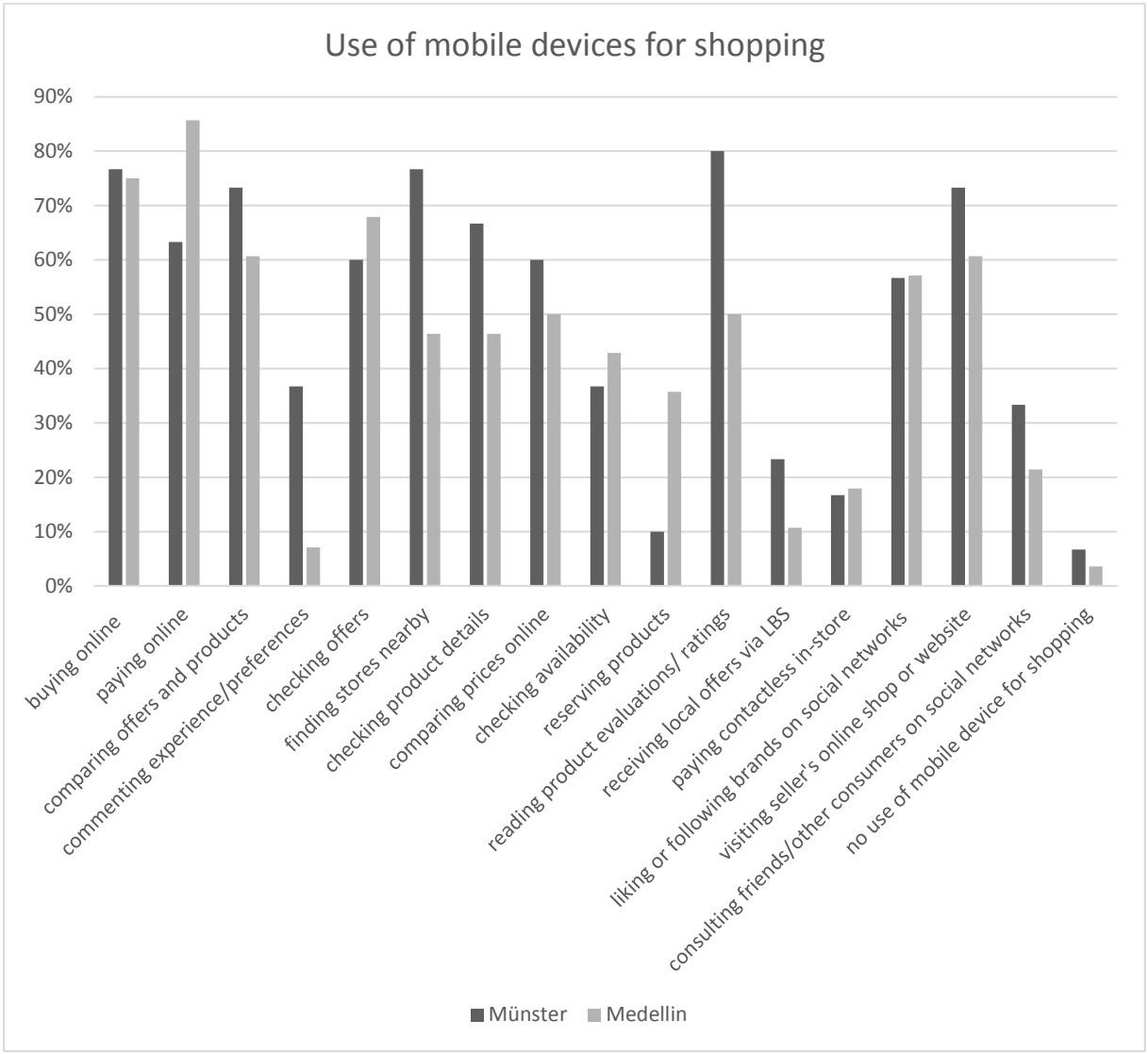

Figure 3. Diagram based on survey results concerning the use of mobile devices for shopping. The bars represent the percentage of the German and Colombian sample who selected the corresponding answer option.

Similar to the German sample, 96.4% of the students from Medellin indicated having used their mobiles for purchase-related activities, especially for paying and buying online, followed by checking offers/promotions or receiving coupons, comparing offers and products, and visiting sellers' online shops or websites. 17.9% had already used their smartphone for paying contactless in-store (see *Figure 3* and Appendix 3, Table 4).

The vast majority of the respondents from Münster (83.3%) had also used their mobile devices while shopping in-store. The favorite activities were “taking photos of the product information”, “comparing prices online”, and “reading product evaluations or ratings by other consumers”. Only 10% indicated having bought a product online via a mobile device while inside of a store (see *Figure 4* and Appendix 3, Table 2). Through a contingency table it was found that more female respondents use their mobile devices for shopping in-store (89.5%) than male students (72.7%) (see Appendix 3, Table 3).

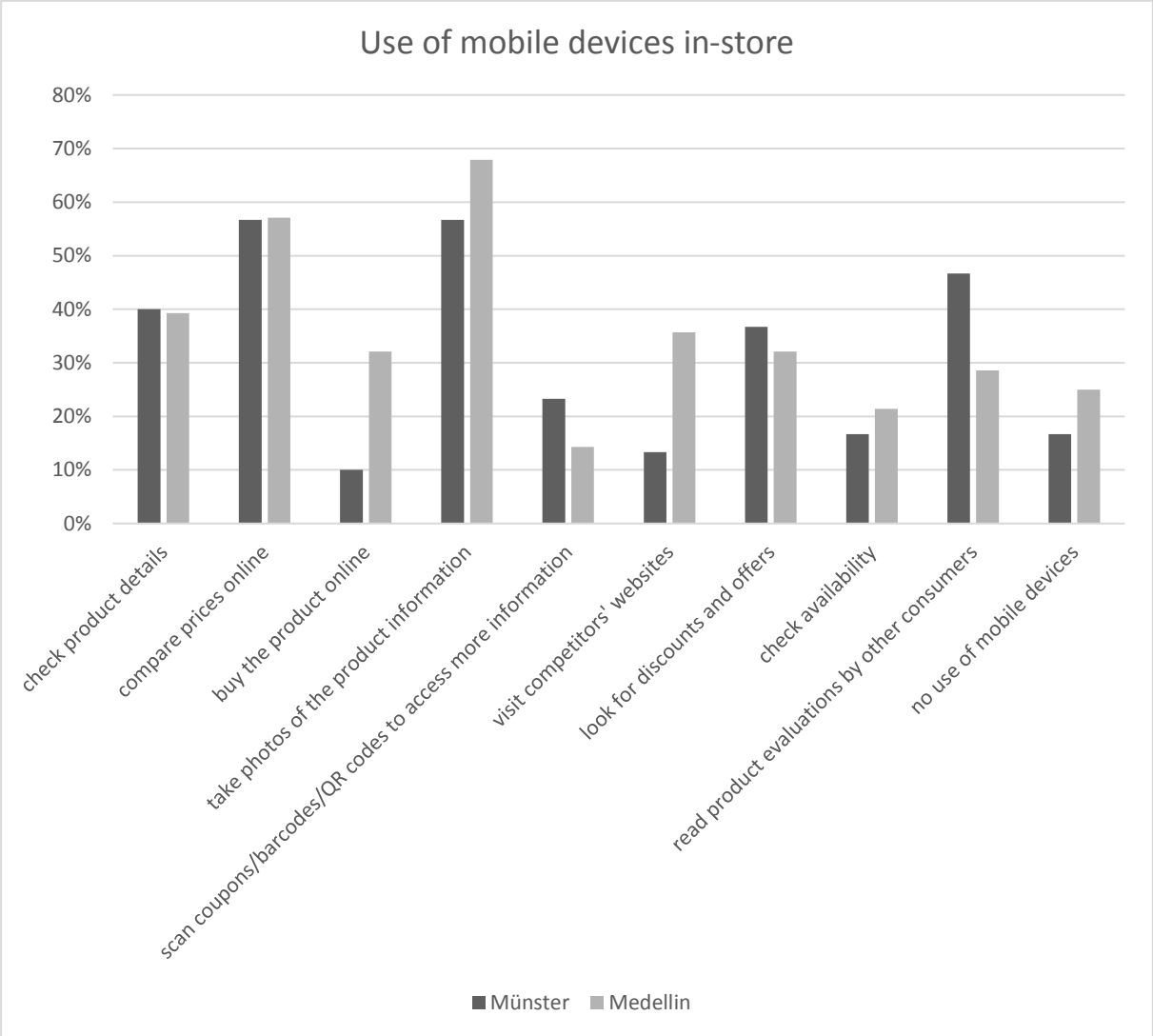

Figure 4. Illustration based on survey results concerning the use of mobile devices for shopping in-store. The bars represent the percentage of the German and Colombian sample who selected the corresponding answer option.

75% of the Colombian respondents had already used their mobile device(s) during shopping inside a physical store, especially for comparing prices online and taking photos of product information, as well as for checking product details online. Compared to the German sample a higher number (35.7%) of Colombian students had already visited competitors' websites or online shops with their mobile devices in-store and bought a product online (32.1%), whereas only 10% of the German respondents had already bought a product online via their device in-store and 13.3% had visited the website/online shop of a competitor. As in the German sample, more female Colombians use their mobile device during shopping in-store (83.3%) than the male respondents (68.8%) (see Appendix 3, Table 5).

- **Usage of multiple channels for shopping**

The majority of German master students (56.7%) indicated using typically two channels during their buying process. 36.7% said they use three or more channels for shopping (see Appendix 4, Table 2). The mean of the variable is 2.57 and the standard deviation 1.073 (see Appendix 4, Table 1). As in the German sample, the majority of Colombians (63.3%) indicated using typically two channels while shopping, whereas 30% use three or more channels (see Appendix 4, Table 4). The mean of the variable is 2.33 and the standard deviation 0.802 (see Appendix 4, Table 3).

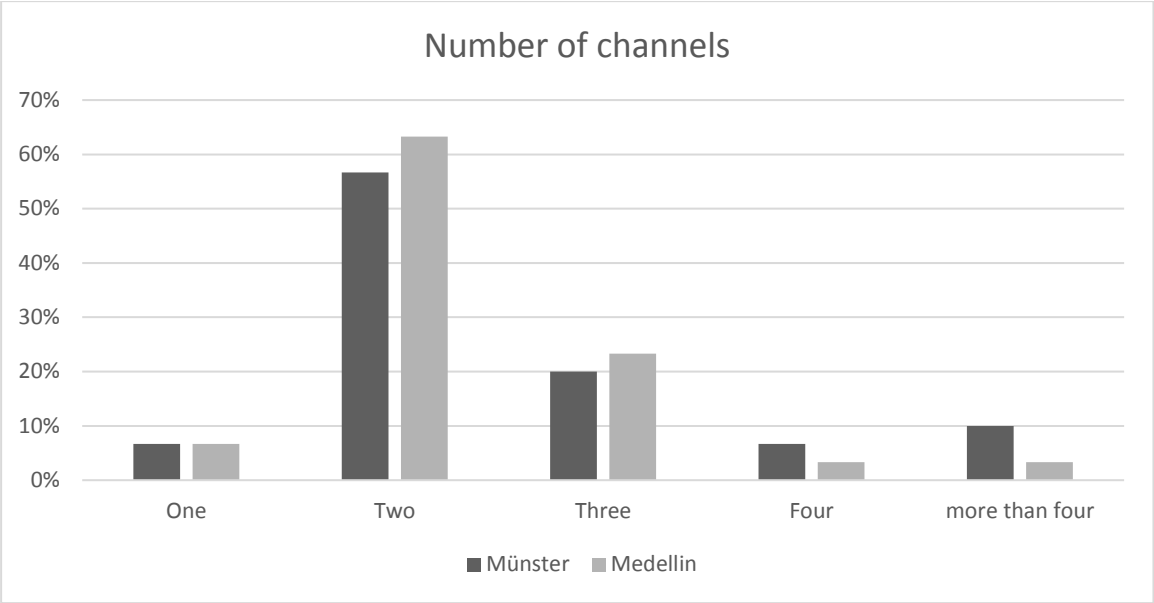

Figure 5. Number of channels used during shopping.

Regarding the different product categories, it was found that the German and Colombian respondents buy the majority of products through both online and offline channels. About a third of all products are solely purchased in the offline world, especially groceries/alcohol, medicine and personal care products, and between 8 and 11.2% only over the Internet (e.g. airline/bus/train tickets and hotel/tour reservations or event tickets) (see Appendix 5).

Respondents were also asked if they had already practiced one of the portrayed cross-channel shopping behaviors. Results show that the vast majority of both nationalities had changed channels during their purchase process. 90% of the master students from Münster and 85.7% of the postgraduate students from Medellin stated that after researching a product online, they bought it offline. Especially among the younger age groups in Colombia, this behavior pattern is apparent as all of the 22-25 year-old students had followed this behavior compared to 66.7% of those who were 34 years or older. In addition, 86.7% of the German sample also affirmed that after trying a product in-store, they bought it online, compared to 60.7% of the Colombians. Again, this behavior is more relevant among the younger aged students. Half of the master students from Münster and Medellin had also researched a product online, tried it

in-store afterwards and ordered it finally online. Around 50% had also used click-and-collect, i.e. purchased a product online and picked it up later in a local store. Whereas 50-57.1% of the Colombian students between 22 and 33 had practiced click-and-collect, only every third of 34 years and older had followed this cross-channel shopping behavior. Moreover, 50% of the German and 60.7% of the Colombian respondents said that they had already bought a product on their way via their mobile device (see Appendix 6).

Figure 6 below illustrates the percentage of German and Colombian respondents, who have already followed these behavior patterns.

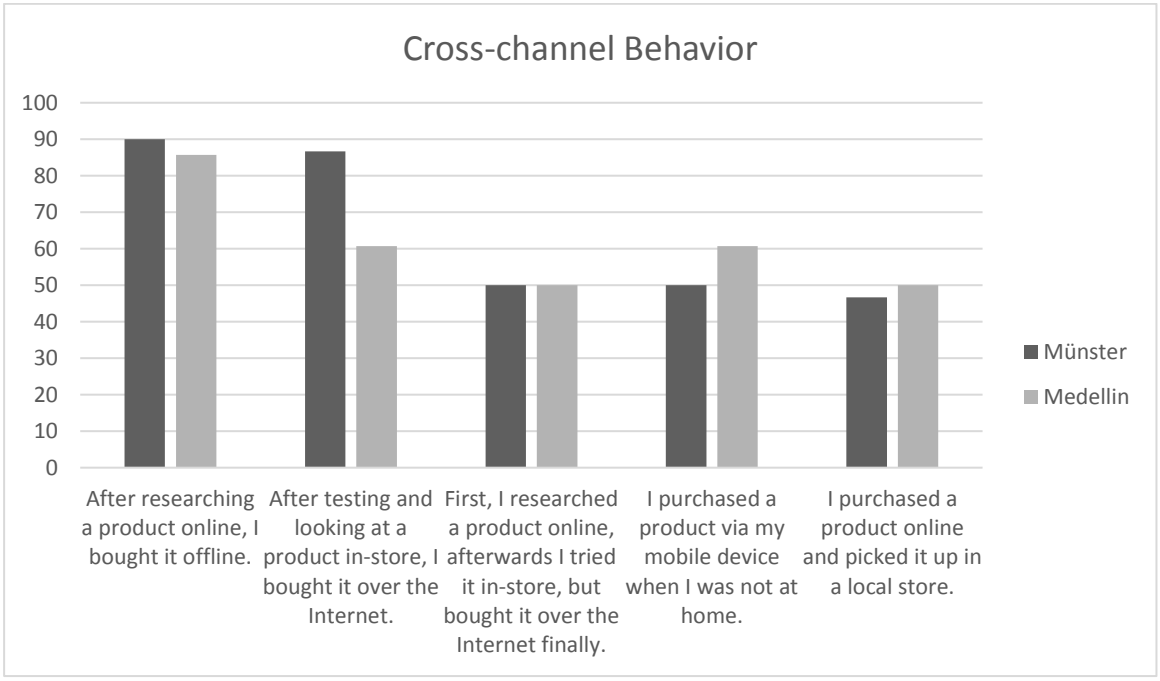

Figure 6. Cross-channel shopping patterns. The bars indicate the percentage of the sample who has already followed the pattern.

- **The customer journey (DOROPOCO)**

Along the four phases of the purchase process (discovery, information research, purchase, evaluation) the use of several sales and communication channels was explored. In general, the brick-and-mortar store still represents the main touchpoint for customers with a company:

96.7% of the students from Münster and 93.3% of the Colombian students indicated having already discovered products in a store, 90% of the German sample had also searched for more information in-store compared to 63.3% of the Colombians, between 93.3% and 100% had already bought a product in-store, and approx. every third had also commented on their shopping experience in a brick-and-mortar store. For the discovery of a product, recommendations by friends and family (93.3%), online shops, online product reviews and ratings, and search engines play an important role for the students from Münster. Moreover, 60% stated that they had already discovered a product via social networks, blogs or user forums. In Colombia, also catalogs (60%) are a relevant channel for the discovery of a potential purchase, as well as several online channels, such as social media, company websites, online shops and search engines. The Internet is also largely used for looking for more information about a potential purchase, as 80% of the German respondents indicated having researched online on product review or rating sites, 90% via search engines, and 80% on online marketplaces. In Colombia, the preferred channels for researching online are company websites (76.7%), search engines (76.7%), online shops and online marketplaces. As a sales channel, the brick-and-mortar store is followed by online shops, as 93.3% of the German students and 73.3% of the Colombian students have completed a purchase in a web shop, and via online marketplaces (90% in Germany, 70% in Colombia). The mobile application has been used as a sales channel by 43.3% of the Colombians and by 26.7% of the German sample. Whereas only 13.3% of the students from Münster indicated having already purchased via social media, among the sample from Medellin already every third has bought a product through this channel (see Appendix 7). *Figure 7* gives an overview of the preferred sales channels among the students from Medellin and Münster.

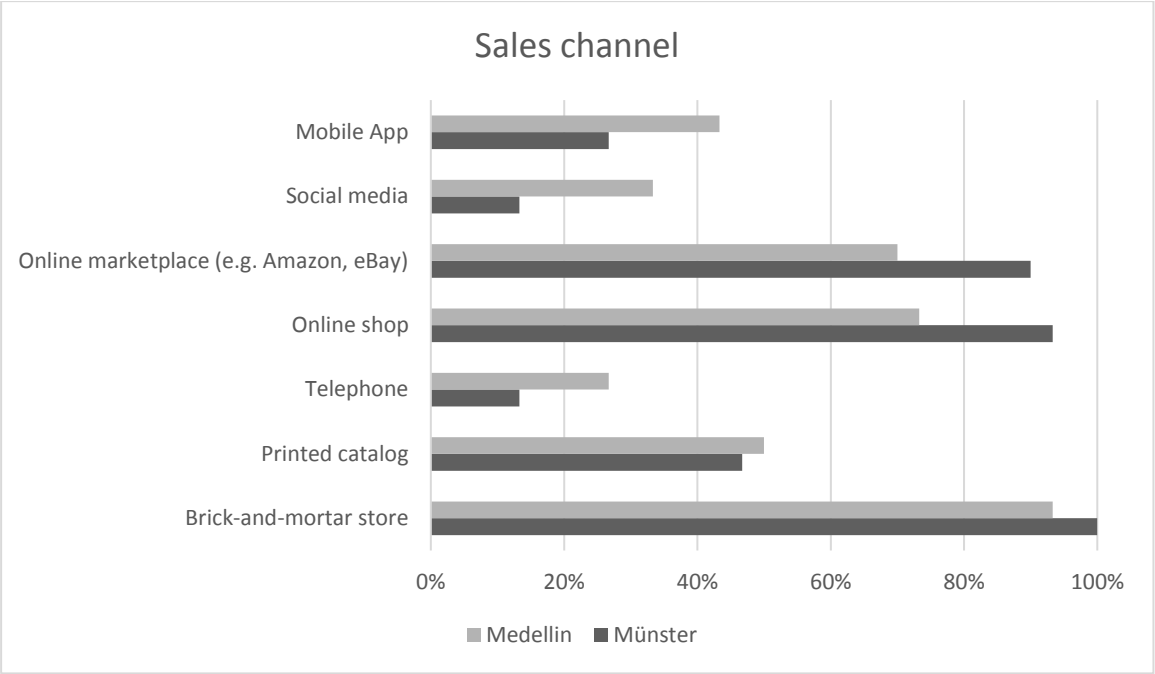

Figure 7. The bars indicate the percentage of the sample who has already completed a purchase via the corresponding sales channel.

The most relevant channels for evaluating the own shopping experience were among the sample from Münster, besides friends and family (60%), online marketplaces (56.7%), online product rating and comparison sites (46.7%) as well as social networks, blogs and user forums (36.7%). 30% had also used mobile apps for sharing their opinion. 6.7% indicated that they had never evaluated or commented on their shopping experience. Compared to this, 16.7% of the postgraduate students from Medellin said they had not commented on their shopping experience yet, whereas every third had shared their experience with friends or family as well as via brands' websites, followed by physical stores, email, telephone and mobile apps (see Appendix 7).

In average, the master students from Münster use nine different channels for discovering a product, 7.8 for researching a product, 3.8 different channels for the purchase itself and 3.1 channels for evaluating their experience. 93.3% of the sample use three or more different channels for making a purchase. The Colombian students apply in average 8 different

channels for discovering products, 5.3 for the research phase, 3.9 for buying products, and 2.5 for commenting on their experience. 76.7% of the respondents apply 3 or more different sales channels.

During their last buying process, the students from Münster in average used 4.9 different channels and the Colombian participants 5.5 along the four phases of the customer journey. Again, the brick-and-mortar store was the most frequent touchpoint along the shopping path: 53.3% of the German sample and 36.7% of the Colombian respondents discovered the product in-store, between 15.9% and 24.2% searched for more information about the product in a physical store, 66.7% in Germany and 40% in Colombia also bought it there and 8.6% to 10% evaluated their experience in-store. Overall, 60% of the German sample compared to 46.7% of the Colombian sample discovered the product through an offline channel, whereas 40% and 53.3% discovered it online. 66.7% of the students from Münster bought the product offline whereas 33.3% completed the purchase over the Internet. In comparison, only 43.3% of the Colombian students purchased offline as the majority (56.7%) completed their last purchase on the Internet (see Appendix 8).

With the help of contingency tables possible interrelations between the variables were examined regarding the switching behavior between the channels along the customer journey. Among the sample from Münster it was found that of those, who had discovered their last purchase in a store, 68.8% also looked for more information there, whereas 31.2% chose another channel for their research[1]. Of those who had discovered the product in-store, 18.8% used search engines for obtaining more information, 18.8% looked on the company's website for more information, 12.5% researched on online product rating sites, 12.5% researched on social media sites, 12.5 % in online shops, and 12.5% on online marketplaces. 33.3% of the

[1] Multiple responses were possible. It cannot be excluded that those who researched in-store not also researched via other channels.

respondents who had discovered a product via social media, researched more information through search engines and 66.7% on online product rating and review sites. All respondents who had researched a product in-store, also bought the product there. 62.5% of those who had used search engines to research the potential purchase online bought the product in a brick-and-mortar store, 25% in an online shop, and 12.5% in an online marketplace, hence 37.5% of those who had discovered the product online also bought it online. Furthermore, 15% of those who bought a product in a store, commented on their experience afterwards online on rating sites. 15% indicated that they had not evaluated or commented on their shopping experience at all (see Appendix 9).

Among the postgraduate students from Medellin, 63.6% of those who had discovered their last purchase in a physical store, also researched for more information there. 18.8% researched via search engine tools and on company websites, 12.5% on online product review and rating sites, as well as on social media, in online shops, and on online marketplaces. Half of those who had discovered a product in social networks, blogs, forums, or via a mobile application and 40% of those who had discovered it on the brand's website, went to a store to get more information about it. Of those who in turn had researched their last purchase in a brick-and-mortar store, 69.2% also completed the purchase in the store, whereas every third chose a different sales channel, such as an online shop, catalog or a mobile app. 20% of those who had discovered a product on a brand's website purchased it in a physical store, 40% in an online shop and via an online marketplace. Half of those who had discovered the product in social networks/blogs/forums, also purchased it via social media, whereas 25% bought in a physical store or through an online shop. Two thirds of those who had discovered the product in an online shop, also bought it there, whereas every third completed the purchase in a brick-and-mortar store. Of those who had researched their last purchase online via search engine tools, every third purchased the product in a brick-and-mortar store finally, 27.8% in an online

shop, 22.2% in an online marketplace and 11.1% via a mobile app. Similar behavior can be seen among those who had researched a product on the company's website, as 36.4% completed the purchase in a physical store and the same percentage in an online shop, 18.2% via an online marketplace and 9.1% through a mobile app. The majority of those who had researched a product via social media, purchased it via an online marketplace and more than 40% in a physical store. Every fourth who had discovered their last purchase in an online shop also bought it there, whereas 37.5% completed the purchase via an online marketplace or in an offline store. The same percentage, 25%, of those who had discovered the product via an online marketplace, bought it either in a store, in an online shop, at an online marketplace, or via a mobile app. Only every fourth who had discovered the product in a mobile app also bought it via an app, 75% instead went to a physical store to purchase it there (see Appendix 9). Only 16.7% of the students from Medellin, who had purchased a product in a brick-and-mortar store, also evaluated their shopping experience in a store, the same percentage visited the brand's website to comment the purchase, every third commented it via email, and 8.3% via social media. 14.3% of those who had bought a product in an online shop, evaluated their experience in a physical store, the same percentage did so on the brand's website, per email and social media (see Appendix 9).

- **Shopping experience**

The importance of certain elements for having a positive customer experience were evaluated by the respondents by means of a Likert scale from 1 ("very high") to 5 ("very low"). Elements that were rated between 1 and 3 can be described as important and those between 3 and 5 can be considered not important. In average, for the German consumers the option to return online purchases and get their money back in-store is the most important element, with a mean of 1.93 (1 = very high, 2 = high); 83.3% find this possibility important or very important. Contactless payment methods, in turn, were rated as not important with a mean

value of 3.53. As important were also classified the consistency of product information and price across channels, the option to pick up a delivery in the closest store, the access to more in-depth product information in stores through technology and the ability to interact with a company over multiple channels. 43.3% of the German respondents also indicated that a more personalized experience is of high or very high importance for having a positive customer experience (see *Table 5*, *Figure 8*, and Appendix 11).

Table 5. *Importance of particular elements for having a positive customer experience. Accumulated percentage of respondents who indicated "important" or "very important".*

Element	**Percentage (important and very important)**		**Mean**	
	Münster	**Medellin**	**Münster**	**Medellin**
Ability to interact with the company over multiple channels	53.3%	83.3%	2.5	1.8
Access to more in-depth product information in stores through technology	60.0%	83.3%	2.5	1.7
Consistency of product information and price across channels	56.7%	93.3%	2.3	1.57
A more personalized experience with relevant offers and recommendations based on my interests	43.3%	80.0%	2.83	1.93
Ongoing engagement with the company after the purchase has concluded	20.0%	26.7%	3.63	2.9
Company representatives have my client information across all channels	26.7%	33.3%	3.27	3.17
Option to pick up delivery in closest store	56.7%	63.3%	2.47	2.4
Option to return online purchase and get money back in-store	83.3%	70.0%	1.93	1.9
Contactless payment methods (e.g. via NFC technology)	20.0%	80.0%	3.53	1.9

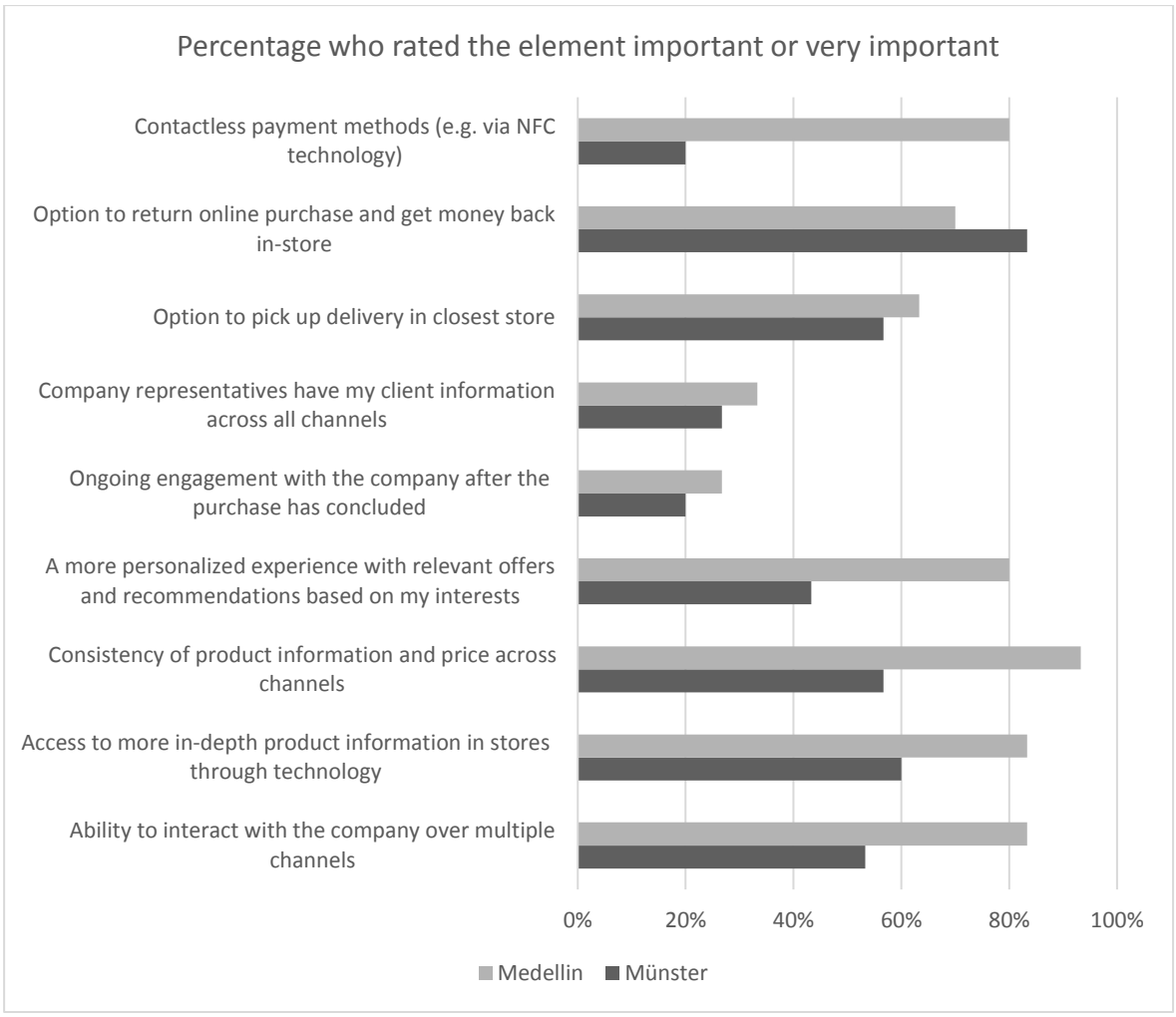

Figure 8. Important aspects of a positive customer experience.

The sample from Medellin evaluated the consistent information flow across channels, followed by having access to more in-depth product information through technology in stores, and the ability to interact with the company over multiple channels as the most relevant elements for having a positive shopping experience. The least important elements were an ongoing engagement with the company after the purchase and that company representatives have their client information across all channels. Overall, all elements had been rated considerably more important by the Colombian sample than by the German students. Whereas contactless payment methods are important or very important for 80% of the Colombian students, only 20% of the students from Münster find this offer relevant. 80% of the respondents from Medellin perceive a personalized experience as important or very important,

whereas only 43.3% of the German respondents shared this impression (see *Table 5, Figure 8*, and Appendix 11).

- **Bivariate frequency distribution**

In order to analyze the interrelation between two variables, contingency tables were used and Cramer's V calculated in SPSS to determine the correlation values. It was found that a strong correlation between the channel used during the last purchase process for discovering a product and the channel used for buying the product exists, as the Cramer's V value is 0.871 among the German sample and 0.688 among the Colombian respondents (see Appendix 9).

Furthermore, it was found that 37.9% of the smartphone owners from Münster indicated using three or more channels during the buying process compared to 29.6% of the students from Medellin. 50.1% of the German tablet owners also indicated using three or more channels while shopping, compared to 18.2% of the Colombian sample (Appendix 9). Another result of the contingency tables is that half of the German students who own desktop computers completed their last purchase online and the other half offline, whereas the majority of those who do not own a desktop computer completed their purchase offline, as *Table 6* below illustrates. However, among the Colombian respondents, the majority completed its last purchase online, with the highest share of online shoppers among the smartphone owners (see Appendix 9).

Table 6. *Frequency of purchases completed online and offline depending on the devices owned by the subject.*

Number of last purchases…	**Tablet**		**Smartphone**		**Laptop**		**Desktop**	
City	**Münster**	**Medellin**	**Münster**	**Medellin**	**Münster**	**Medellin**	**Münster**	**Medellin**
… made online	5	6	10	17	10	16	4	6
% of device owners	31.2	54.6	34.4	62.9	34.4	57	50.0	60.0
… made offline	11	5	19	10	19	12	4	4
% of device owners	68.8	45.5	65.5	37	65.5	42.9	50.0	40.0

3.3. DISCUSSION

In this chapter the findings of the cross-cultural questionnaire are being compared and new research questions, as well as hypotheses formulated which could serve as a basis for future investigation. Moreover, limitations of this research are presented, recommendations for future studies given and the contribution by this investigation for the marketing field as well as for the current state of research outlined.

3.3.1. Interpretation

Based on the findings several new research questions and hypotheses were formulated which may lay the foundation for future investigation in this area.

The results demonstrate that the use of mobile devices is widely spread among the 20-29 year old master students in Germany. People of this age range are also referred to as digital natives, who were born into the digital world and grew up with computers, the Internet, mobile devices and social media (Prensky, 2001). Among the 20-27 year old students, all participants dispose of a smartphone and the majority of the sample also owns a tablet. What

is striking is that significant more female students have tablets than their male counterparts, both in the German and the Colombian sample. Even though the penetration of mobile devices is a bit lower among the Colombian students, as 90% dispose of a smartphone and only 36.7% of a tablet, the differences are not significant. Especially, among the younger aged students the penetration is very high, as all of the 22-29 year old Colombians have a smartphone, in contrast to only 66.7% of the postgraduates who are 34 years or older. The Colombian sample also includes members of the so-called Generation X, describing all born between 1965 and 1980 and thus digital immigrants (Prensky, 2001), who did not grow up with the digitalization in the same way as the younger generation, which might explain the lower smartphone penetration with increasing age. However, the majority of the sample is also made up of digital natives. When observing these results it should be taken into account that the vast majority of the Colombian students are working full-time, generating income, and belong, given the private character of the university in Medellin, to a great part to the middle- or upper class. Hence, the results cannot be generalized over the whole Colombian population. Nevertheless, from a marketing perspective these higher-income consumers are of specific interest for businesses and are thus in the focus of this study.

As the omnichannel phenomenon is driven by the spread of mobile technology and its role in the purchase process, the use of smartphones and tablets for shopping was investigated. The findings show that the use of mobile devices for shopping related activities has become a matter of course for both German and Colombian postgraduate students as between 93.3% and 96.4% of the respondents had already used their mobile during shopping; not only do they use these gadgets to finalize a purchase but also to obtain more details about a product in order to make an informed purchase decision. However, the mobile wallet function of smartphones for paying contactless in stores is not yet widely used in the two countries, as the results suggest.

Moreover, a great majority of the Colombian and German respondents, especially women, had already used their smartphone or tablet inside of a store, in order to compare prices or obtain more information about a product. This conduct represents a parallel use of different platforms and channels during the same shopping process and thus reflects the omnichannel shopping trend. Although the share of Colombian students who already used their mobile devices in-store for shopping is a little lower compared to the German sample, a greater number had already bought a product online with their device while shopping inside of a store or visited competitors' websites which implies not only a change in channels but also a change between different providers irrespective of the place, which is characteristic for omnichannel shopping. Based on these findings possible research questions for future research could be identified:

RQ1: *Do younger generations tend to follow omnichannel patterns to a greater extent compared to elder generations?*

RQ2: *Are omnichannel shopping patterns stronger among digital device users from Colombia compared to German consumers?*

RQ3: *Do consumers feel guilty when visiting competitors' websites or buying from a competitor while inside a store?*

RQ4: *Why has mobile wallet for paying contactless in store via smartphones not established as a common payment method in Germany and Colombia?*

Furthermore, more than every third of the students from Medellin and Münster claims using three or more different channels during their shopping journey. The usage of multiple channels, in particular for the same purchase, is also a strong indication for an omnichannel buying pattern. For the majority of product categories the respondents use both offline and online channels to purchase a product of that kind, a sign of the growing importance of e-

commerce in the modern retail world which seems to have established as an ordinary sales channel in the mind of the consumer. The share of German respondents who buy products on- and offline is higher than among the Colombian sample, suggesting a stronger penetration of online shopping in Germany than in Colombia. However, shopping offline is still the preferred option for about 30% of the product categories which in turn reflects the importance of having a physical presence in the market.

H1: *Digital natives use whatever channel is most convenient for them at that specific moment.*

RQ5: *Does the average number of channels used in the customer journey depend on the age of the consumer?*

RQ6: *Is online shopping more common among digital natives than digital immigrants?*

RQ7*: Are digital natives more open to use both traditional and non-traditional channels for all kind of products?*

Omnichannel shopping also implies cross-channel behavior patterns along the path to purchase, such as webrooming and showrooming. According to the survey results, 90% of the sample from Münster and 85.7% from the Colombian sample had already researched a product online but bought it offline, which corresponds with the ROPO effect or webrooming. 86.7% of the German students and 60.7% of the students from Medellin had already done the opposite called showrooming; after trying a product in-store, they bought it online. Hence, webrooming seems to be more widespread than showrooming, representing a special challenge for pure online players. However, both cross-channel behaviors are apparent among both samples and thus need to be considered by companies in their marketing strategies. Results suggest that these conducts are more frequent among younger aged students, as a significant higher number of 22-25 year-old participants had done web- and showrooming compared to those who were 34 years and older. Half of the students from the two samples

had also practiced another cross-channel behavior, called boomerooming, switching twice between the channels, as they first researched a product online, tried it offline in a store, but bought it over the Internet in the end. Another cross-channel trend is click-and-collect, which had also been used by around 50% of the German and Colombian participants. Again, a higher share of students between 22 and 33 years had already used click-and-collect compared to the older aged students from Medellin. Thus, cross-channel shopping might be more common among digital natives who could be more open to switching channels out of convenience or in order to evaluate all alternatives and make an informed purchase decision. Although these cross-channel patterns are more widespread among the German sample, they are also relevant among the Colombian sample as the differences between the occurrences of the variables are often small and the same trends clearly recognizable. On the other hand, more than 60% of the Colombian sample stated that they had already bought a product on their way via their mobile device compared to 50% of the German sample. This shows that shopping is not bound locally anymore, neither by place nor time as omnichannel consumers can get information about a purchase or buy a product whenever and wherever they desire. This mobile shopping trend, in turn, seems to be more widespread among the students from Medellin which might result from Colombians embracing m-commerce faster than German consumers.

H2. *Modern consumers expect flexibility in their shopping process without being bound to the same channel or platform.*

H3: *Digital natives are more open to cross-channel shopping than elder generations.*

RQ8: *Why is webrooming more apparent than showrooming in the shopping behavior of young consumers?*

RQ9: *Do Colombian consumers place more emphasis on mobility along the shopping journey compared to German consumers?*

Even though the brick-and-mortar store remains the most important touchpoint for consumers, online channels, including social networks and blogs, also play a major role in the shopping process of the respondents. The Internet helps them to discover potential purchases and serves as a platform to obtain more information. 93.3% of the German students had already ordered a product via an online shop, which shows that the Internet has established in this age group as a natural shopping channel. Among the Colombian sample, 73.3% had already purchased online which again suggests that e-commerce in Colombia is not as dominant as in Germany yet, but has also become an important sales channels. On the other hand, a significant higher number of Colombian respondents had already purchased products via mobile applications, suggesting that m-commerce has become a more relevant sales channel in Colombia than in Germany. Moreover, social media has established as a sales channel of higher relevance in Colombia than in Germany as results suggest. In general, a variety of sales channels is typically used by both samples for purchasing products. Furthermore, the evaluation phase appears to be an important stage of the customer journey as 93.3% of the German sample and 83.3% of the students from Medellin had already evaluated or commented on their shopping experience. For the respondents from Münster especially the Internet serves as a platform for sharing their opinions with other consumers, whereas the Colombian consumers also used physical stores and the telephone in the after-sales phase.

RQ10: *Do digital natives implement the Internet to a higher grade in their customer journey than other generations?*

RQ11*: Why are social media and m-commerce more relevant for shopping among Colombian consumers?*

Regarding the general usage of channels during the individual shopping phases, it was found that both samples had already used a large variety of channels for all stages of the customer journey. The average number of channels implemented in the buying process tends to be smaller among the Colombian consumers but the distribution is similar as the highest number of channels had been implemented in the discovery phase, followed by the research phase, the purchase and finally the evaluation phase. Hence, the respondents can be described as multichannel consumers who use multiple channels for different purchases. This question does not point out if a participant has used these touchpoints during the same purchase process or on different occasions but shows that the respondents do not limit themselves to one or two channels. However, results of the following questions about the respondents' last purchase show that the sample had also used several channels for the different stages of the same purchase and suggest that cross-channel patterns were implemented as the participants did not proceed through the whole customer journey solely via one single channel. The results show that after having discovered a product for example in a store, several online channels were used for researching the product. Nevertheless, all German respondents who had researched a product in-store, also bought it there and did not switch channels at this step. In contrast, every third of the Colombian sample who had researched their last purchase in a physical store, completed the purchase via a different sales channel, online and offline. Thus, among the Colombian consumers showrooming was practiced. On the other hand, a considerable number of consumers, both from Münster and Medellin, who had researched a product online, bought it in a store afterwards, supporting the hypothesis of the ROPO effect. This might result from the consumer's desire to see and try the product before the purchase. Furthermore, 85% of the German respondents and 50% of the Colombian students had shared their last shopping experience with other consumers, which illustrates the power of the

consumer who may influence others with their product evaluations, and the relevance of the fourth stage of the customer journey.

In general, the respondents from both samples did not use solely one channel for each shopping phase during their last purchase but showed a multichannel behavior within the research and evaluation phase. Moreover, they switched in a considerable amount of cases the channels between the individual phases. The discovery platform was, for instance, seldom the channel of choice for the final purchase. This behavior involving the use of multiple channels for the same purchase and several changes in the channels, platforms and touchpoints along the shopping path is a strong indication for the omnichannel consumer behavior.

As this study intended to illustrate with two samples from different countries, consumers have the option of choosing between online or offline channels along the whole customer journey consisting of four phases -discovery, research, purchase, evaluation- and thus their shopping path can be described as *DOROPOCO*: Discovery Online/Offline, Research Online/Offline, Purchase Online/Offline, Comment Online/Offline.

RQ12: *How often do consumers switch between the different channels along the four phases of the customer journey?*

RQ13: *How many different channels in total do they use along their customer journey?*

RQ14: *At what point do consumers change the channel or platform most frequently?*

RQ15: *How can marketers examine the DOROPOCO path their consumers take and influence it?*

Concerning the positive customer experience it was found that the listed omnichannel elements were rated as important by the samples, such as the "access to more in-depth product information in stores through technology". This omnichannel approach combines offline with

digital and online channels. Moreover, cross-channel strategies such as offering the consumer the possibility to return an online purchase in a store and get the money back there, were rated by the vast majority as important or even very important. Hence, convenience and a seamless shopping experience across all channels play an important role for modern consumers. The omnichannel approach also implies consistency across all channels in order to deliver a seamless shopping experience, which according to the majority of the sample is important for a positive customer experience. In general, all elements were rated significantly more important by the Colombian consumers than by the German sample. Hence, contactless payment methods were perceived as important by the postgraduate students from Medellin, whereas the German respondents rated this element as not important. These results suggest that the sample from Medellin has higher expectations and demands concerning an omnichannel shopping experience compared to the sample from Münster.

H3: *Digital natives expect the implementation of omnichannel solutions by brands.*

H4: *Colombian consumers attach more importance to a seamless shopping experience across all channels and omnichannel elements in the marketing strategy.*

RQ16*: Do customer expectations regarding omnichannel business strategies vary according to the culture / the age / the gender / the occupation?*

Results of the German sample also suggest that owners of a desktop computer tend to have a higher probability of shopping online. This might be due to security issues and easier handling of online shops on a large screen than on smaller mobile devices. Overall, disregarding the devices owned, the Colombian respondents had completed the majority of their last purchases online, whereas most of the German consumers purchased offline the last time. Despite earlier results that e-commerce has not established in Colombia yet the way it has in Germany, this in

turn might indicate a development towards an increase in online shopping by Colombian consumers. Especially, the smartphone owners purchased the last time online.

RQ17: *Do digital device users shop more online compared to other consumers?*

3.3.2. Limitations

There are several limitations to this research. Given the exploratory character of this study, only a small sized sample participated in the survey in order to gain a general insight into the omnichannel phenomenon and to check if this consumer behavior can be found among the younger generations in Germany and Colombia, and is worth further investigation. As with every sample survey, errors may occur. Survey results are typically subject to some error, classified in sampling and non-sampling errors, i.e. random errors and systematic biases. Non-sampling errors are harder to quantify than sampling errors. Sampling bias is a systematic error due to a non-random sample of a population: The sample is collected in such a way that some members of the population are less likely to be included than others, resulting in a biased sample. A biased sample is defined as a statistical sample of a population in which all participants are not equally balanced or objectively represented (McMillan, 2012; Zikmund, Babin, Carr, & Griffin, 2013, p.187-188). Since the sample is not representative of the population, the results of the study cannot be transferred to the entire population, resulting in a low external validity of the study (Gravetter & Forzano, 2015, p. 147).

The following types of non-sampling errors need to be considered for this study:

1. *Selection bias* refers to the distortion of a statistical analysis, resulting from the method of collecting samples. It describes the selection of individuals, groups or data for analysis in such a way that proper randomization is not achieved. Hence, the sample obtained is not representative of the population intended to be analyzed. With a convenience sample, this type of error is substantial (Freedman, 2004, p. 3).

2. *Non-response bias* refers to errors in the results which occur when members of the sample cannot or will not participate in the survey. If the response rate is high, non-response bias is minimal. If the response rate is low, non- response bias is a problem that needs to be considered (Freedman, 2004, p. 3).
3. *Response bias* describes errors resulting from the influence exerted on the responses given, for example by the wording of the questions or the structure of the questionnaire (Freedman, 2004, p. 3).
4. *Voluntary response bias* occurs when sample members are self-selected volunteers, as in voluntary samples. The final sample is not the result of a prior realized selection by the investigator based on statistical criteria, but only those are included who accepted voluntarily to participate. The sample, thus, is not probabilistic (Watkins, Scheaffer, & Cobb, 2010, p. 186).

As the sample only included master and postgraduate students from two universities the findings cannot be transferred to consumers of different age, education level and nationality. This study was constrained by resources and time which did not allow for a broader research with a representative sample. Thus, convenience sampling was applied to obtain survey participants for this voluntary response sample. Convenience sampling is not normally representative of the target population because sample units are selected based on easy availability and not randomly. As a result, the demographic characteristics of the samples did not correspond with those of the populations as the percentage of female respondents in the German sample was higher than in the population and the average age of both German and Colombian respondents was below the mean of the populations. Moreover, although both samples comprise master and postgraduate students, the demographic characteristics of the participants differ to a great extent as the percentage of male respondents in the Colombian sample is higher than in the German sample, the average age of the Colombian respondents

was higher (29.8 compared to 24.9) and 90% were working at that time, whereas most of the German participants were full-time students. These differences occurred as only voluntary respondents participated in the survey, which may have led to skewed results due to specific environmental factors and the overrepresentation of some individuals. However, the large deviations in occupation can be explained by the fact that postgraduate programs at Colombian universities aim at students who are also full-time working, offering courses in the night or at the weekend, whereas most master programs in Germany are developed for studying full-time.

Moreover, only a smart part of the population completed the questionnaire which may have led to non-response bias. This might have been caused by security issues as the link to the survey was sent via email, the short time period or the length of the questionnaire. 21.05% of the German and Colombian participants did not complete the whole questionnaire, but stopped in or after the second section. This could be due to the amount of questions and response options as well as the necessary time investment for the survey.

As research shows, younger age groups are using digital and mobile devices at a larger extent than older age groups and thus are likely to show a higher level of multi- and cross-channel buying patterns than the rest of the population. Given the fact, that this study solely includes master and postgraduate students, in its majority belonging to younger age groups, these buying patterns could occur to a higher extent than in a random sampling where all age groups are considered proportionally to their size.

3.3.3. Suggestions for future research

This study identified a number of variables which describe omnichannel buying patterns and raises a number of questions which would benefit from further investigation. A similar study with a more comprehensive design would allow for a more detailed analysis of the

phenomenon. Future studies may involve further exploration of the formulated research questions by means of a bigger sized sample (n>=100), implementing random-sampling techniques, which allow to obtain more representative and generalizable study results. Building on the findings of this research as well as previous studies, it is suggested to gather sufficient empirical data via a large-scale survey in order to formulate and test hypotheses through mathematical statistics. This study focused on the younger age group of 20-34 year-olds as they are likely to follow omnichannel shopping trends; in order to fully grasp the omnichannel phenomenon and its penetration of the entire population of a country, different age groups should be represented appropriately in future research. In addition, the sample should contain participants of distinct social backgrounds in order to explore differences in the consumer behaviors. As this study was realized with students from a private university in Colombia, their particular characteristics might be reflected in the results. Also it would be of benefit conducting a cross-cultural study with a larger amount of different nationalities in order to detect similarities and discrepancies between the shopping behavior and find reasons for them.

As the design of this study did not allow for the in-depth analysis of the change of channels between the individual phases of the buying process concerning the number of different channels used along the whole path to purchase and the number of times, channels have been switched, future research could explore in more detail the channel switching behavior along the entire customer journey from discovery to evaluation. Moreover, the importance of omnichannel aspects in the shopping experience could be further investigated by expanding the elements inspected and collect thus more information about consumers' expectations regarding a positive customer experience. Furthermore, this study focused on the use of mobile devices such as smartphones and tablets during the purchase process; future

investigation could also include “new generation wearables”, such as smart watches and glasses, which have the potential to change the consumer behavior to a great extent.

3.3.4. Contribution to theory and marketing

This exploratory study adds to the current state of research in the following ways: As it focuses on 20-34 year-old students who as digital natives tend to adapt new technologies faster than older generations, a clear presence of elements classified as omnichannel consumer behavior could be detected. These behavior patterns are even more pronounced than findings of prior studies suggest, in particular the high penetration of mobile devices and online shopping. Although the sample is not representative of the whole population, the obtained results hint to the existence of the omnichannel phenomenon and thus demand more specific research. As a cross-cultural study it also complements research by offering a comparison of the German and the Colombian consumer behavior concerning omnichannel shopping patterns. As the results suggest the existence of an omnichannel consumer behavior not only among the sample from Münster but also among the students from Medellin, this study opens up new interesting research possibilities. Furthermore, this study offers a new perspective to research as it explores the omnichannel behavior along the entire path to purchase, introducing the “DOROPOCO” concept and formulating a new investigation problem this way while gaining new insights. As the first study to explore the channel usage across all four phases of the customer journey, it was found that cross-channel patterns can also be seen between the discovery and research phase, as well as between the purchase and evaluation phase. Overall, this study demonstrates that omnichannel shopping is a researchable problem, which is possible to explore by means of statistical methods. The findings suggest carrying out a broader empirical study as a next step which provides more generalizable results on all age groups.

Furthermore, our findings have several major implications for marketers. First of all, the results suggest a lasting establishment of online and digital sales channels and devices for shopping among consumers. As a high percentage of the sample uses their mobile devices for shopping-related activities and the Internet has become the second important touchpoint after brick-and-mortar stores for this consumer group, brands need to adapt to changes brought by these developments in the consumer behavior. As the findings show, these consumers expect a seamless customer experience across all channels and flexible options by implementing cross-channel solutions such as click-and-collect. Results imply not only the usage of different channels by consumers for shopping but also the simultaneous use of channels, for example, by using their smartphone in-store to compare prices with those of competitors. Companies need to react to these conducts and accompany their customers along their path to purchase, being present at the decisive touchpoints and convincing them to complete the purchase with them instead of switching to a competitor. Marketers should focus more on digital technologies and channels, including social media, as purchase decisions are also made on these platforms. In fact, results suggest that these consumers tend to choose the sales channel which appears to be the most convenient for them at that specific moment instead of using the same limited set of channels every time. The customer journey has become more complex through digitalization and it has become more difficult to identify at what point the customer has decided to purchase or not to purchase from a company. Every brand needs to define for itself the journey their customers go through as this can vary to a large extent. Nevertheless, the so-called showrooming, which has been presented as one of the biggest challenges for companies today by prior studies, could not be detected in the last purchase processes of the German respondents, but occurred among the Colombian sample. Overall, the opposite approach, webrooming, seems to play a more important role in shopping. A reason for this might be that customer still prefer seeing, touching and trying certain products

before buying them. Hence, marketers should maximize their advantage by offering their customers a special shopping experience in-store, for example via neuromarketing techniques and the implementation of digital technologies. This study also grants marketers insights into the shopping behavior of Colombian consumers, who as the results suggest follow the same omnichannel trends as the German consumers while implementing their mobile device to an even higher degree in their buying process and attaching higher importance to a seamless shopping experience. Thus, the survey results may serve as a first basis to better understand consumer and develop omnichannel strategies on an international scale.

4. CONCLUSIONS

The purpose of this study was to compare the shopping behavior of postgraduate students at the Pontifical Bolivarian University in Medellin (Colombia) and master students at the University of Applied Sciences in Münster (Germany) regarding the use of traditional and non-traditional sales channels in order to detect omnichannel behavior patterns in their customer journey. By means of exploratory data analysis and a self-administered questionnaire conducted with two samples, empirical data was gathered and examined in order to detect common patterns which may suggest an omnichannel shopping behavior among the participants. Within the course of this research a number of variables which characterize the omnichannel consumer behavior were identified based on an extent review of related studies and literature. According to previous research, omnichannel implies the use of multiple channels along the buying decision journey of consumers, as well as cross-channel buying patterns. It represents the ideal seamless shopping experience on all platforms, from traditional brick-and-mortar stores to the digital world, anywhere and at any time without any disconnects. Omnichannel shopping also involves the simultaneous use of different channels, such as customers using their smartphone inside of a store to scan a barcode.

The findings of the cross-cultural survey suggest the presence of omnichannel shopping patterns among both samples on the basis of the identified omnichannel characteristics. Results clearly show the importance of new technology, such as mobile devices and the Internet, for the customer journey of the German and Colombian students. Moreover, the responses suggest that the majority of this age group not only use several different channels during the same purchase, but also simultaneously. Furthermore, results indicate certain cross-channel buying patterns, including webrooming, showrooming and boomerooming, as well as click-and-collect. Also, the findings show the consumers' expectation of a seamless and consistent shopping experience across all channels. Overall, results of this cross-cultural study

suggest a strong presence of omnichannel aspects in modern consumers. In fact, the omnichannel shopping trends detected seem to be more apparent among the questioned samples than previous studies concluded. The use of mobile devices for shopping, also inside of a store, has become matter of course for German and Colombian master students and cross-channel trends have been practiced by a larger share than prior studies would have suggested. By exploring the customer journey regarding the last purchase its complexity as these consumer groups used a variety of channels and changed between them is clearly portrayed. Although the penetration of mobile devices is lower in Colombia, the participants had implemented their gadgets to a higher degree in their shopping journey, using them to buy wherever they are. Furthermore, their expectations regarding a seamless customer experience exceeded those of the other sample, even though the defined cross-channel conducts were practiced to a larger extent by the German students. Results in general suggest that modern consumers desire a convenient and mobile shopping experience, not bound by place nor time, crossing channels, platforms, and devices as often as they want.

Hence, these findings support the theory of a new shopping behavior in the digital era and suggest that the omnichannel phenomenon is a researchable problem as relevant results were achieved by means of the cross-cultural survey. Its objective was also to complement existing research by new relevant aspects in the discussion and thus has also carried forward research in this area as it acquired insight into buying patterns along the entire customer journey, expanding prior studies by focusing not only on the research and purchase phase but also on the prior and later shopping phases *discovery* and *evaluation*. This study illustrates with both samples that consumers have the option of choosing between online or offline channels along the whole customer journey which consists of four phases: discovery, research, purchase, evaluation. Hence, this study introduces a new term for the omnichannel shopping path based

on the ROPO and DOROPO trend, namely DOROPOCO (Discovery Online/Offline, Research Online/Offline, Purchase Online/Offline, Comment Online/Offline).

Therefore, this study helped to precise the research problem while developing new hypotheses and formulating research questions, which may lay the foundation for future investigation. Moreover, this study helped to gain new insight into the omnichannel phenomenon and gave recommendations for potential future research of this problem. Thus, it grants benefits for academic research by introducing a new investigation perspective of the problem, providing a deeper insight into the little researched phenomenon and supporting future studies by giving recommendations concerning the methodological design. Furthermore, retailers benefit from the results in order to obtain a first impression of the relevance of this shopping behavior for organizations, not only in Germany but also in Colombia, and may trigger a rethinking concerning their business strategies.

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List of Appendices

Appendix 1: Demographic characteristics of the samples

Münster

Table 1. ***Gender distribution Münster. SPSS Output.***

Please give your gender.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	female	19	63.3	63.3	63.3
	male	11	36.7	36.7	100.0
	Total	30	100.0	100.0	

Table 2. ***Age Münster. SPSS Output.***

Statistics

Please type in your age.

N	Valid	30
	Missing	0
Mean		24.87
Median		24.50
Std. Deviation		2.543
Variance		6.464
Minimum		20
Maximum		29

Test of Outliers:

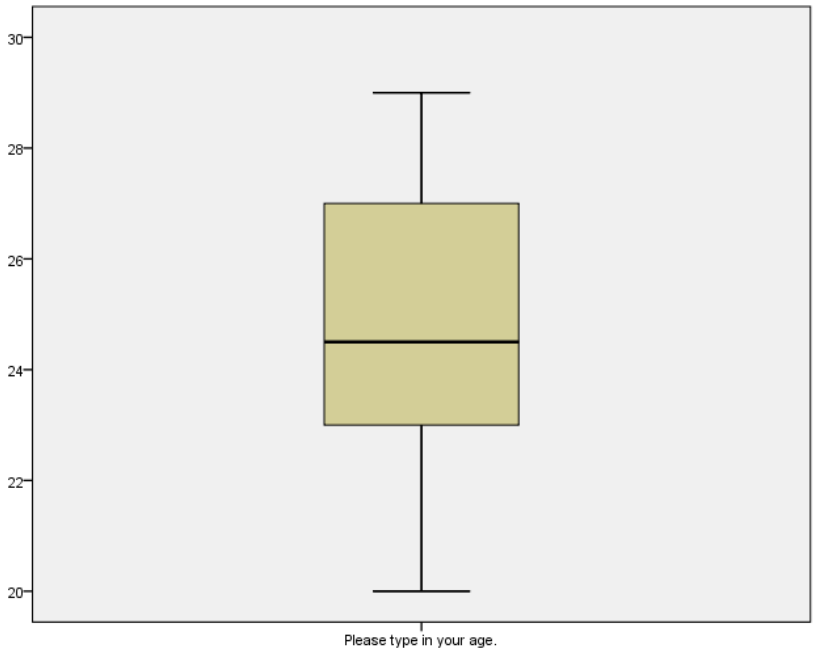

Figure 1. **Boxplot analysis of variable "age" Münster**

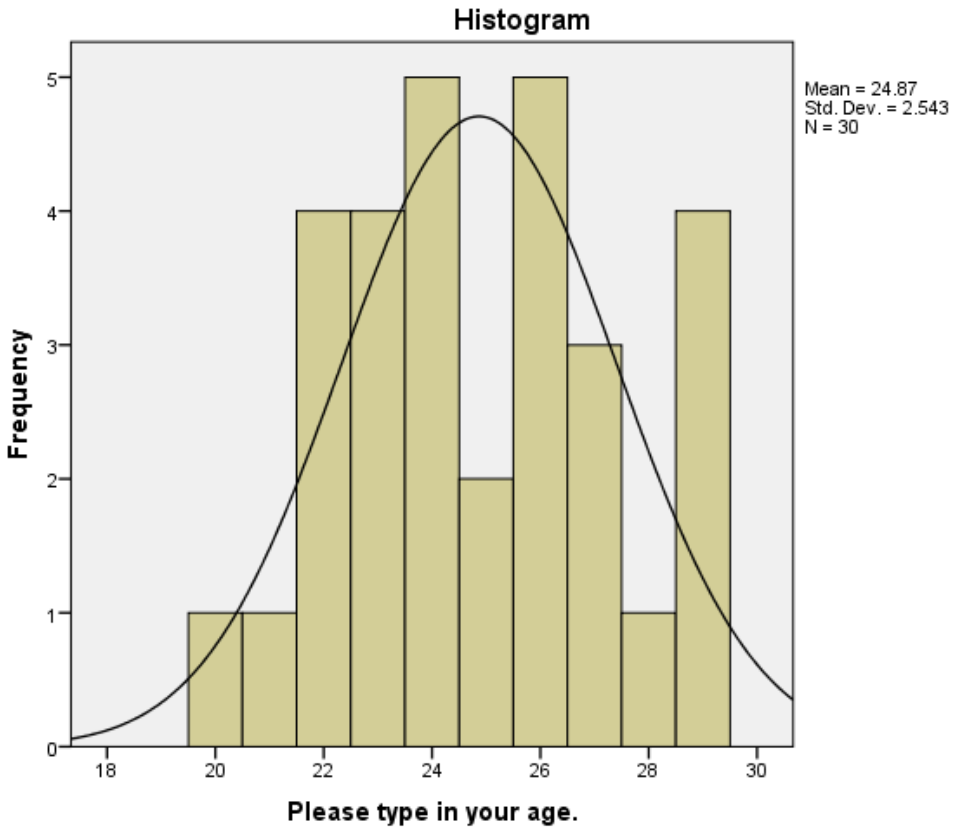

***Figure 2*. Histogram with normality curve variable "age" Münster.**

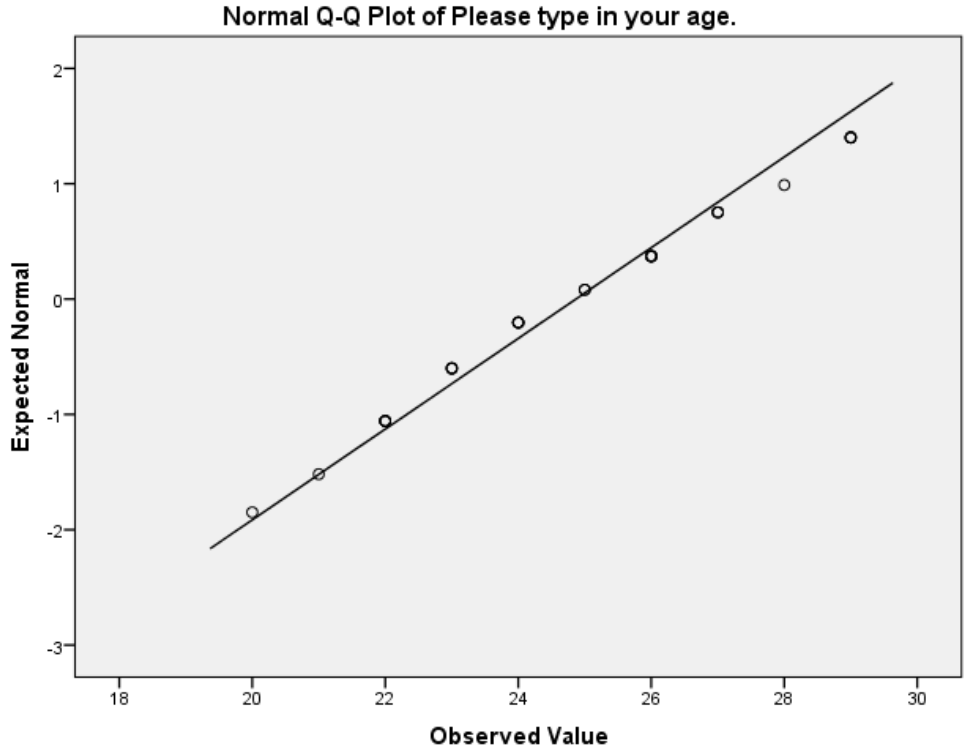

***Figure 3*. Q-Q Plot of variable "age" Münster.**

Table 3. *Mathematical normality tests of variable "age" Münster. SPSS Output.*

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Please type in your age.	.133	30	.183	.953	30	.209

a. Lilliefors Significance Correction

Table 4. *Recoding of variable "age" Münster. SPSS Output.*

Age groups

		Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
Gültig	19-21	2	6,7	6,7	6,7
	22-24	13	43,3	43,3	50,0
	25-27	10	33,3	33,3	83,3
	28-30	5	16,7	16,7	100,0
	Gesamt	30	100,0	100,0	

Table 5. ***Occupation Münster. SPSS Output.***

What kind of occupation do you have? In case of having several occupations, please select the one which generates your highest monthly income.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Director	1	3.3	3.3	3.3
	Occupation in operative level	1	3.3	3.3	6.7
	Occasional or temporary work	2	6.7	6.7	13.3
	Civil servant	4	13.3	13.3	26.7
	Currently out of work or full-time student	22	73.3	73.3	100.0
	Total	30	100.0	100.0	

Medellin

Table 6. ***Gender distribution Medellin. SPSS Output.***

Please give your gender.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	female	13	43.3	43.3	43.3
	male	17	56.7	56.7	100.0
	Total	30	100.0	100.0	

Table 7. ***Age Medellin. SPSS Output.***

Statistics

Please type in your age.

N	Valid	30
	Missing	0
Mean		29.80
Median		29.50
Std. Deviation		5.294
Variance		28.028
Minimum		22
Maximum		46

Test of outliers:

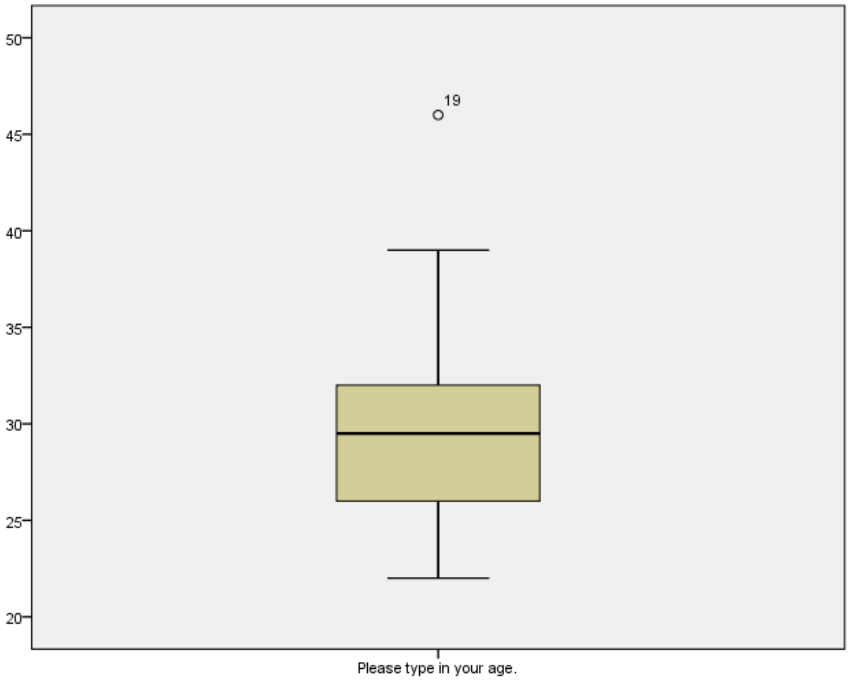

Figure 4. **Boxplot analysis of variable "age" Medellin.**

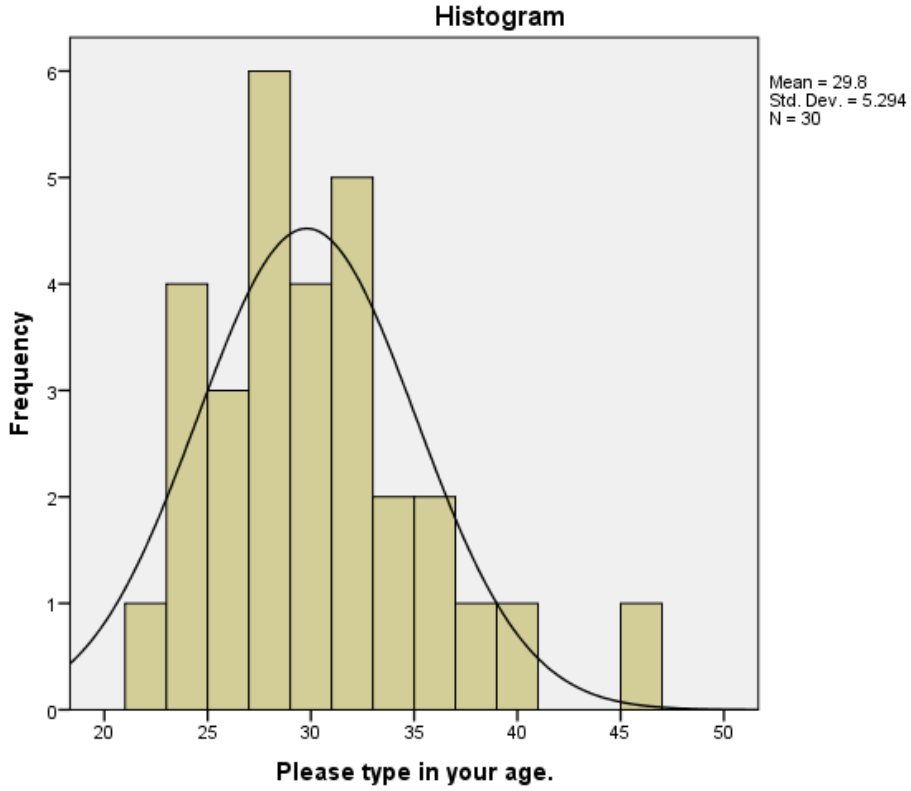

Figure 5. **Histogram with normality curve variable "age" Medellin**.

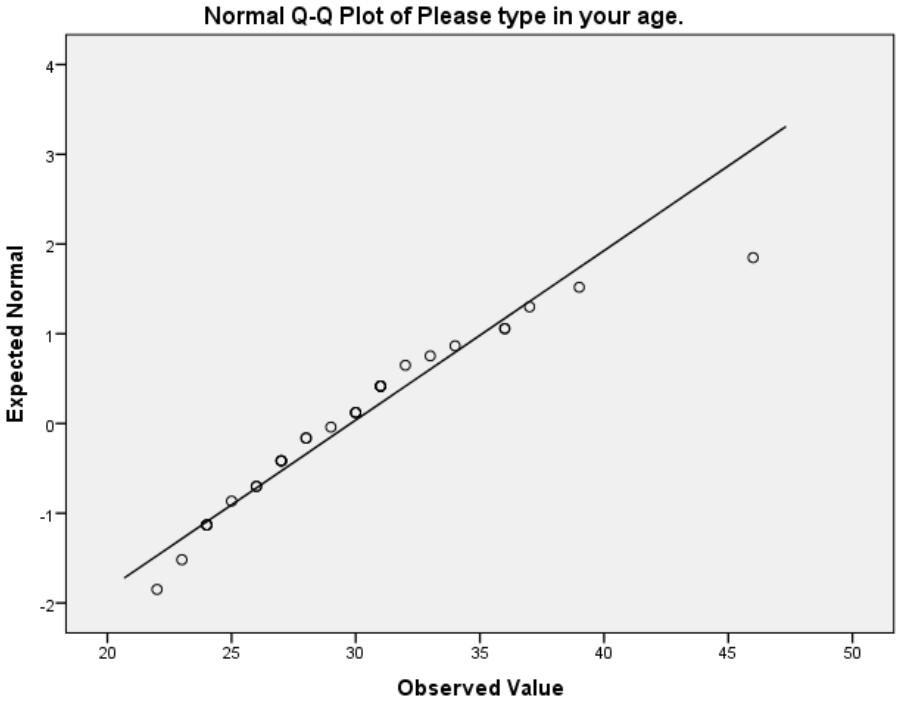

Figure 6. **Q-Q Plot of variable "age" Medellin.**

Table 8. ***Mathematical normality tests of variable "age" Medellin. SPSS Output.***

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Please type in your age.	.144	30	.116	.933	30	.058

a. Lilliefors Significance Correction

Table 9. ***Recoding of variable "age" Medellin. SPSS Output.***

Age groups

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	22-25	6	20.0	20.0	20.0
	26-29	9	30.0	30.0	50.0
	30-33	9	30.0	30.0	80.0
	34 years and older	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

Table 10. ***Occupation Medellin. SPSS Output.***

What kind of occupation do you have? In case of having several occupations, please select the one which generates your highest monthly income.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Senior Management	3	10.0	10.0	10.0
	Director	19	63.3	63.3	73.3
	Occupation in operative level	4	13.3	13.3	86.7
	Independent work	1	3.3	3.3	90.0
	Currently out of work/full-time student	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Appendix 2: Ownership of mobile devices

Münster

Table 1. ***Devices owned Münster. SPSS Output.***

		Percent of Cases
Devices[a]	Laptop	96.7%
	Smartphone	96.7%
	Desktop Computer	26.7%
	Tablet	53.3%
Total		273.3%

Table 2. ***Contingency table Age groups * Smartphone owners Münster. SPSS Output.***

Age groups * Smartphone Crosstabulation

			Smartphone		Total
			Not selected	Yes	
Age groups	19-21	Count	0	2	2
		% within Age groups	0.0%	100.0%	100.0%
		% within Smartphone	0.0%	6.9%	6.7%
		% of Total	0.0%	6.7%	6.7%
	22-24	Count	0	13	13
		% within Age groups	0.0%	100.0%	100.0%
		% within Smartphone	0.0%	44.8%	43.3%
		% of Total	0.0%	43.3%	43.3%
	25-27	Count	0	10	10
		% within Age groups	0.0%	100.0%	100.0%
		% within Smartphone	0.0%	34.5%	33.3%
		% of Total	0.0%	33.3%	33.3%
	28-30	Count	1	4	5
		% within Age groups	20.0%	80.0%	100.0%
		% within Smartphone	100.0%	13.8%	16.7%
		% of Total	3.3%	13.3%	16.7%
Total		Count	1	29	30
		% within Age groups	3.3%	96.7%	100.0%
		% within Smartphone	100.0%	100.0%	100.0%
		% of Total	3.3%	**96.7%**	100.0%

Table 3. ***Contingency table Age groups * Tablet owners Münster. SPSS Output.***

Age groups * Tablet Crosstabulation

			Tablet		Total
			Not selected	Yes	
Age groups	19-21	Count	1	1	2
		% within Age groups	50.0%	50.0%	100.0%
		% within Tablet	7.1%	6.2%	6.7%
		% of Total	3.3%	3.3%	6.7%
	22-24	Count	8	5	13
		% within Age groups	61.5%	38.5%	100.0%
		% within Tablet	57.1%	31.2%	43.3%
		% of Total	26.7%	16.7%	43.3%
	25-27	Count	4	6	10
		% within Age groups	40.0%	60.0%	100.0%
		% within Tablet	28.6%	37.5%	33.3%
		% of Total	13.3%	20.0%	33.3%
	28-30	Count	1	4	5
		% within Age groups	20.0%	80.0%	100.0%
		% within Tablet	7.1%	25.0%	16.7%
		% of Total	3.3%	13.3%	16.7%
Total		Count	14	16	30
		% within Age groups	46.7%	53.3%	100.0%
		% within Tablet	100.0%	100.0%	100.0%
		% of Total	46.7%	**53.3%**	100.0%

Table 4. ***Contingency table Gender * Smartphone owners Münster. SPSS Output.***

Please give your gender. * Smartphone Crosstabulation

	Smartphone	Total

			Not selected	Yes	
Please give your gender.	female	Count	1	18	19
		% within Please give your gender.	5.3%	94.7%	100.0%
		% within Smartphone	100.0%	62.1%	63.3%
		% of Total	3.3%	60.0%	63.3%
	male	Count	0	11	11
		% within Please give your gender.	0.0%	100.0%	100.0%
		% within Smartphone	0.0%	37.9%	36.7%
		% of Total	0.0%	36.7%	36.7%
Total		Count	1	29	30
		% within Please give your gender.	3.3%	96.7%	100.0%
		% within Smartphone	100.0%	100.0%	100.0%
		% of Total	3.3%	96.7%	100.0%

Table 5. ***Contingency table gender * tablet owners Münster. SPSS Output.***

Please give your gender. * Tablet Crosstabulation

			Tablet		Total
			Not selected	Yes	
Please give your gender.	weiblich	Count	7	12	19
		% within Please give your gender.	36.8%	63.2%	100.0%
		% within Tablet	50.0%	75.0%	63.3%
		% of Total	23.3%	40.0%	63.3%
	männlich	Count	7	4	11
		% within Please give your gender.	63.6%	36.4%	100.0%
		% within Tablet	50.0%	25.0%	36.7%

Total	% of Total	23.3%	13.3%	36.7%
	Count	14	16	30
	% within Please give your gender.	46.7%	53.3%	100.0%
	% within Tablet	100.0%	100.0%	100.0%
	% of Total	46.7%	53.3%	100.0%

Medellin

Table 6. ***Devices owned Medellin. SPSS Output.***

Devices

		Responses		Percent of Cases
		N	Percent	
Devices[a]	Laptop	28	36.8%	93.3%
	Smartphone	27	35.5%	90.0%
	Desktop Computer	10	13.2%	33.3%
	Tablet	11	14.5%	36.7%
Total		76	100.0%	253.3%

a. Dichotomy group tabulated at value 1.

Table 7. ***Contingency table Age groups * Devices owned Medellin. SPSS Output.***

Age groups * Devices Crosstabulation

			Devices[a]				
			Laptop	Smartphone	Desktop Computer	Tablet	Total
Age groups	22-25	Count	6	6	1	2	6
		% within Age groups	100.0%	100.0%	16.7%	33.3%	
		% within Devices	21.4%	22.2%	10.0%	18.2%	
		% of Total	20.0%	20.0%	3.3%	6.7%	20.0%
	26-29	Count	9	9	4	3	9
		% within Age groups	100.0%	100.0%	44.4%	33.3%	
		% within Devices	32.1%	33.3%	40.0%	27.3%	
		% of Total	30.0%	30.0%	13.3%	10.0%	30.0%
	30-33	Count	8	8	3	2	9
		% within Age groups	88.9%	88.9%	33.3%	22.2%	
		% within Devices	28.6%	29.6%	30.0%	18.2%	
		% of Total	26.7%	26.7%	10.0%	6.7%	30.0%
	34 years and older	Count	5	4	2	4	6
		% within Age groups	83.3%	66.7%	33.3%	66.7%	
		% within Devices	17.9%	14.8%	20.0%	36.4%	
		% of Total	16.7%	13.3%	6.7%	13.3%	20.0%
Total		Count	28	27	10	11	30
		% of Total	93.3%	90.0%	33.3%	36.7%	100.0%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Table 8. ***Contingency table gender * devices owned Medellin. SPSS Output.***

Gender*Devices Crosstabulation

			Devices[a]				
			Laptop	Smartphone	Desktop Computer	Tablet	Total
Please give your gender.	female	Count	13	12	4	6	13
		% within Gender	100.0%	92.3%	30.8%	46.2%	
		% within Devices	46.4%	44.4%	40.0%	54.5%	
		% of Total	43.3%	40.0%	13.3%	20.0%	43.3%
	male	Count	15	15	6	5	17
		% within Gender	88.2%	88.2%	35.3%	29.4%	
		% within Devices	53.6%	55.6%	60.0%	45.5%	
		% of Total	50.0%	50.0%	20.0%	16.7%	56.7%
Total		Count	28	27	10	11	30
		% of Total	93.3%	90.0%	33.3%	36.7%	100.0%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Appendix 3: Usage of mobile devices for shopping-related activities

Münster

Table 1. ***Frequency table usage of mobile devices for shopping Münster. SPSS Output.***

$DevicesShopping Frequencies

		Responses		Percent of Cases
		N	Percent	
Devices during shopping[a]	buying online	23	8.5%	**76.7%**
	paying online	19	7.0%	**63.3%**
	comparing offers and products	22	8.1%	**73.3%**
	commenting on my shopping experience and preferences	11	4.1%	**36.7%**
	checking offers or promotions	18	6.6%	**60.0%**
	exploring products and novelties	16	5.9%	**53.3%**
	finding stores nearby	23	8.5%	**76.7%**
	checking product details	20	7.4%	**66.7%**
	comparing prices online	18	6.6%	**60.0%**
	checking availability of products	11	4.1%	**36.7%**
	reading product evaluations or ratings	24	8.9%	**80.0%**
	reserving products	3	1.1%	**10.0%**
	receiving local offers via location-based services (GPS)	7	2.6%	**23.3%**
	paying contactless in-store (mobile wallet)	5	1.8%	**16.7%**
	liking or following brands on social networks (facebook, twitter, instagram, etc.)	17	6.3%	**56.7%**

	visiting seller's online shop or website	22	8.1%	**73.3%**
	consulting friends or other consumers on social networks	10	3.7%	**33.3%**
	I haven't used my mobile device for purchase-related activities.	2	0.7%	**6.7%**
Total		271	100.0%	903.3%

a. Dichotomy group tabulated at value 1.

Table 2. ***Frequency table usage of mobile devices for shopping in-store Münster. SPSS Output.***

$DevicesInStore Frequencies

		Responses		Percent of Cases
		N	Percent	
Devices used while shopping in-store[a]	check product details/information	12	12.5%	40.0%
	compare prices online	17	17.7%	56.7%
	buy the product online	3	3.1%	10.0%
	take photos of the product information	17	17.7%	56.7%
	scan coupons, barcodes or QR codes to access more information about a product	7	7.3%	23.3%
	visit competitors' web sites/online shops	4	4.2%	13.3%
	look for discounts and offers	11	11.5%	36.7%
	check availability of a product in other stores	5	5.2%	16.7%
	read product evaluations or ratings by other consumers	14	14.6%	46.7%

	reserve a product	1	1.0%	3.3%
	I haven't used my mobile device for purchase-related activities in-store.	5	5.2%	16.7%
Total		96	100.0%	320.0%

Table 3. ***Contingency table usage mobile devices in-store * gender Münster. SPSS Output.***

$DevicesinStore*D2 Crosstabulation

			Please give your gender.		
			female	male	Total
Mobile devices in-store[a]	check product details/information	Count	6	6	12
		% within $DevicesinStore	50.0%	50.0%	
		% within D2	31.6%	54.5%	
		% of Total	20.0%	20.0%	40.0%
	compare prices online	Count	9	8	17
		% within $DevicesinStore	52.9%	47.1%	
		% within D2	47.4%	72.7%	
		% of Total	30.0%	26.7%	56.7%
	buy the product online	Count	2	1	3
		% within $DevicesinStore	66.7%	33.3%	
		% within D2	10.5%	9.1%	
		% of Total	6.7%	3.3%	10.0%
	take photos of the product information	Count	11	6	17
		% within $DevicesinStore	64.7%	35.3%	
		% within D2	57.9%	54.5%	
		% of Total	36.7%	20.0%	56.7%
	scan coupons, barcodes or QR codes to access more information about a product	Count	3	4	7
		% within $DevicesinStore	42.9%	57.1%	
		% within D2	15.8%	36.4%	
		% of Total	10.0%	13.3%	23.3%
	visit competitors' web sites/online shops	Count	2	2	4
		% within $DevicesinStore	50.0%	50.0%	
		% within D2	10.5%	18.2%	
		% of Total	6.7%	6.7%	13.3%
	look for discounts and offers	Count	7	4	11
		% within $DevicesinStore	63.6%	36.4%	
		% within D2	36.8%	36.4%	
		% of Total	23.3%	13.3%	36.7%
	check availability of a product in other stores	Count	3	2	5
		% within $DevicesinStore	60.0%	40.0%	
		% within D2	15.8%	18.2%	
		% of Total	10.0%	6.7%	16.7%
	read product evaluations or ratings by other consumers	Count	11	3	14
		% within $DevicesinStore	78.6%	21.4%	
		% within D2	57.9%	27.3%	
		% of Total	36.7%	10.0%	46.7%
	reserve a product	Count	1	0	1
		% within $DevicesinStore	100.0%	0.0%	
		% within D2	5.3%	0.0%	
		% of Total	3.3%	0.0%	3.3%
	I haven't used my mobile device for purchase-related activities in-store.	Count	2	3	5
		% within $DevicesinStore	40.0%	60.0%	
		% within D2	10.5%	27.3%	
		% of Total	6.7%	10.0%	16.7%
Total		Count	19	11	30
		% of Total	63.3%	36.7%	100.0%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Medellin

Table 4. ***Frequency table usage of mobile devices for shopping Medellin. SPSS Output.***

$Mobile1 Frequencies

		Responses		Percent of Cases
		N	Percent	
Usage of mobile devices for shopping[a]	buying online	21	9.5%	75.0%
	paying online	24	10.9%	85.7%
	comparing offers and products	17	7.7%	60.7%
	commenting on my shopping experience and preferences	2	0.9%	7.1%
	checking offers or promotions/receive cupons	19	8.6%	67.9%
	exploring products and novelties	14	6.3%	50.0%
	finding stores nearby	13	5.9%	46.4%
	checking product details	13	5.9%	46.4%
	comparing prices online	14	6.3%	50.0%
	checking availability of products	12	5.4%	42.9%
	reading product evaluations or ratings	14	6.3%	50.0%
	reserving products	10	4.5%	35.7%
	receiving local offers via location-based services (GPS)	3	1.4%	10.7%
	paying contactless in-store (mobile wallet)	5	2.3%	17.9%
	liking or following brands on social networks (facebook, twitter, instagram, etc.)	16	7.2%	57.1%
	visiting seller's online shop or website	17	7.7%	60.7%
	consulting friends or other consumers on social networks	6	2.7%	21.4%
	I haven't used my mobile device for purchase-related activities.	1	0.5%	3.6%
Total		221	100.0%	789.3%

a. Dichotomy group tabulated at value 1.

Table 5. ***Contingency table usage of mobile devices in-store * gender Medellin. SPSS Output.***

$DevicesInstore*D2 Crosstabulation

			Gender		
			female	male	Total
Use of mobile devices in-store [a]	check product details/information	Count	4	7	11
		% within $DevicesInstore	36.4%	63.6%	
		% within D2	33.3%	43.8%	
		% of Total	14.3%	25.0%	39.3%
	compare prices online	Count	7	9	16
		% within $DevicesInstore	43.8%	56.2%	
		% within D2	58.3%	56.2%	
		% of Total	25.0%	32.1%	57.1%
	buy the product online	Count	4	5	9
		% within $DevicesInstore	44.4%	55.6%	
		% within D2	33.3%	31.2%	
		% of Total	14.3%	17.9%	32.1%
	take photos of the product information	Count	10	9	19
		% within $DevicesInstore	52.6%	47.4%	
		% within D2	83.3%	56.2%	
		% of Total	35.7%	32.1%	67.9%
	scan coupons, barcodes or QR codes to access more information about a product	Count	2	2	4
		% within $DevicesInstore	50.0%	50.0%	
		% within D2	16.7%	12.5%	
		% of Total	7.1%	7.1%	14.3%
	visit competitors' web sites/online shops	Count	6	4	10
		% within $DevicesInstore	60.0%	40.0%	
		% within D2	50.0%	25.0%	
		% of Total	21.4%	14.3%	35.7%
	look for discounts and offers	Count	4	5	9
		% within $DevicesInstore	44.4%	55.6%	
		% within D2	33.3%	31.2%	
		% of Total	14.3%	17.9%	32.1%
	check availability of a product in other stores	Count	4	2	6
		% within $DevicesInstore	66.7%	33.3%	
		% within D2	33.3%	12.5%	
		% of Total	14.3%	7.1%	21.4%
	read product evaluations or ratings by other consumers	Count	5	3	8
		% within $DevicesInstore	62.5%	37.5%	
		% within D2	41.7%	18.8%	
		% of Total	17.9%	10.7%	28.6%
	reserve a product	Count	2	0	2
		% within $DevicesInstore	100.0%	0.0%	
		% within D2	16.7%	0.0%	
		% of Total	7.1%	0.0%	7.1%
	I haven't used my mobile device for purchase-related activities in-store.	Count	2	5	7
		% within $DevicesInstore	28.6%	71.4%	
		% within D2	16.7%	31.2%	
		% of Total	7.1%	17.9%	25.0%
Total		Count	12	16	28
		% of Total	42.9%	57.1%	100.0%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Appendix 4: Number of channels used during shopping

Münster

Table 1. ***Descriptive statistics variable "Number of channels" Münster. SPSS Output.***

Statistics

When you want to buy a product, how many different channels do you typically use during your purchase process?

N	Valid	30
	Missing	0
Mean		2.57
Median		2.00
Std. Deviation		1.073
Variance		1.151
Minimum		1
Maximum		5
Percentiles	25	2.00
	50	2.00
	75	3.00

Table 2. ***Frequency table number of channels used for shopping Münster. SPSS Output.***

When you want to buy a product, how many different channels do you typically use during your purchase process?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	one	2	6.7	**6.7**	6.7
	two	17	56.7	**56.7**	63.3
	three	6	20.0	**20.0**	83.3
	four	2	6.7	**6.7**	90.0

	more than four	3	10.0	**10.0**	100.0
	Total	30	100.0	100.0	

Medellin

Table 3. ***Descriptive statistics variable "number of channels" Medellin. SPSS Output.***

Statistics

How many different channels do you use during shopping?

N	Valid	30
	Missing	0
Mean		2.33
Median		2.00
Std. Deviation		.802
Variance		.644
Minimum		1
Maximum		5
Percentiles	25	2.00
	50	2.00
	75	3.00

Table 4. ***Frequency table number of channels used for shopping Medellin. SPSS Output*.**

How many different channels do you use during shopping?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	one	2	6.7	6.7	6.7
	two	19	63.3	63.3	70.0
	three	7	23.3	23.3	93.3
	four	1	3.3	3.3	96.7
	more than four	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Appendix 5: Use of online and offline channels for different product categories

Münster

Table 1. ***Frequency table Product categories Münster. SPSS Output.***

$Categories Frequencies

		Responses		Percent of Cases
		N	Percent	
Product Categories[a]	offline and online channels	253	56.2%	843.3%
	only online channels	36	8.0%	120.0%
	only offline channels	122	27.1%	406.7%
	I haven't bought a product of this category.	39	8.7%	130.0%
Total		450	100.0%	1500.0%

a. Group

Medellin

Table 2. ***Frequency table Product categories Medellin. SPSS Output.***

$Categories Frequencies

		Responses		Percent of Cases
		N	Percent	
Product categories[a]	Offline and online channels	199	50.8%	663.3%
	only online channels	44	11.2%	146.7%
	only offline channels	149	38.0%	496.7%
Total		392	100.0%	1306.7%

a. Group

Table 3. ***Frequency table Groceries/alcoholic drinks Medellin. SPSS Output.***

Groceries, alcoholic drinks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Offline and online channels	6	20.0	20.0	20.0
	only offline channels	21	70.0	70.0	90.0
	I haven't bought a product of this category.	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Table 4. ***Frequency table Cosmetics/personal care Medellin. Output SPSS.***

Cosmetics and personal care

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Offline and online channels	8	26.7	26.7	26.7
	only online channels	1	3.3	3.3	30.0
	only offline channels	18	60.0	60.0	90.0
	I haven't bought a product of this category.	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Table 5. ***Frequency table Car/Motorcycle/accessories Medellin. Output SPSS.***

Car, motorcycle and accesories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Offline and online channels	8	26.7	26.7	26.7
	only online channels	2	6.7	6.7	33.3
	only offline channels	15	50.0	50.0	83.3
	I haven't bought a product of this category.	5	16.7	16.7	100.0
	Total	30	100.0	100.0	

Table 6. ***Frequency table Medicine Medellin. Output SPSS.***

Medicine

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Offline and online channels	4	13.3	13.3	13.3
	only online channels	1	3.3	3.3	16.7
	only offline channels	23	76.7	76.7	93.3
	I haven't bought a product of this category.	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Table 7. ***Frequency table Event tickets Medellin. SPSS Output.***

Event tickets (concerts, cinema, etc.)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Offline and online channels	18	60.0	60.0	60.0
	only online channels	7	23.3	23.3	83.3
	only offline channels	3	10.0	10.0	93.3
	I haven't bought a product of this category.	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Table 8. ***Frequency table Travel tickets Medellin. SPSS Output.***

Airline/bus/train tickets, hotel and tour reservations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Offline and online channels	15	50.0	50.0	50.0
	only online channels	15	50.0	50.0	100.0
	Total	30	100.0	100.0	

Appendix 6: Cross-channel shopping behaviors

Münster

Table 1. ***Frequency table Cross-channel behaviors Münster. SPSS Output.***

$Behavior Frequencies

		Responses		Percent of Cases
		N	Percent	
Shopping behaviors[a]	After researching a product online, I bought it offline (e.g. in-store, catalog).	27	27.8%	**90.0%**
	After testing and looking at a product in-store, I bought it over the Internet.	26	26.8%	**86.7%**
	First, I researched a product online, afterwards I tried it in-store, but bought it over the Internet finally.	15	15.5%	**50.0%**
	I purchased a product via my smartphone/tablet when I was not at home (e.g. on the way to work or university).	15	15.5%	**50.0%**
	90.0%	14	14.4%	**46.7%**
Total		**86.7%**	100.0%	**323.3%**

a. Dichotomy group tabulated at value 1.

Table 2. ***Contingency table Cross-channel behavior * gender Münster. SPSS Output.***

		Please give your gender.		Total
		female	male	
Shopping behaviors[a]	Count	18	9	27

	After researching a product online, I bought it offline (e.g. in-store, catalog).	% within $Behavior	66.7%	33.3%	
		% within D2	94.7%	81.8%	
		% of Total	60.0%	30.0%	90.0%
		Count	17	9	26
	After testing and looking at a product in-store, I bought it over the Internet.	% within $Behavior	65.4%	34.6%	
		% within D2	89.5%	81.8%	
		% of Total	56.7%	30.0%	86.7%
		Count	8	7	15
	First, I researched a product online, afterwards I tried it in-store, but bought it over the Internet finally.	% within $Behavior	53.3%	46.7%	
		% within D2	42.1%	63.6%	
		% of Total	26.7%	23.3%	50.0%
		Count	10	5	15
	I purchased a product via my smartphone/tablet when I was not at home (e.g. on the way to work or university).	% within $Behavior	66.7%	33.3%	
		% within D2	52.6%	45.5%	
		% of Total	33.3%	16.7%	50.0%
		Count	6	8	14
	I purchased a product online and picked it up in a local store.	% within $Behavior	42.9%	57.1%	
		% within D2	31.6%	72.7%	
		% of Total	20.0%	26.7%	46.7%
		Count	19	11	30
Total		% of Total	63.3%	36.7%	100.0%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Medellin

Table 3. ***Contingency table Cross-channel behaviors * gender Medellin. SPSS Output.***

$Behavior *D2 Crosstabulation

			Gender		
			female	male	Total
Cross-channel shopping behaviors[a]	After researching a product online, I bought it offline (e.g. in-store, catalogue)	Count	11	13	24
		% within Behaviors	45.8%	54.2%	
		% within Gender	100.0%	76.5%	
		% of Total	39.3%	46.4%	85.7%
	After testing and looking at a product in-store, I bought it over the Internet.	Count	7	10	17
		% within Behaviors	41.2%	58.8%	
		% within Gender	63.6%	58.8%	
		% of Total	25.0%	35.7%	60.7%
	First, I researched a product online, afterwards I tried it in-store, but bought it over the Internet finally.	Count	6	8	14
		% within Behaviors	42.9%	57.1%	
		% within Gender	54.5%	47.1%	
		% of Total	21.4%	28.6%	50.0%
	I purchased a product via my mobile device(s) when I was not at home.	Count	8	9	17
		% within Behaviors	47.1%	52.9%	
		% within Gender	72.7%	52.9%	
		% of Total	28.6%	32.1%	60.7%
	I purchased a product online and picked it up in a local store.	Count	7	7	14
		% within Behaviors	50.0%	50.0%	
		% within Gender	63.6%	41.2%	
		% of Total	25.0%	25.0%	50.0%
Total		Count	11	17	28
		% of Total	39.3%	60.7%	100.0%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Table 4. ***Contingency table Cross-channel behaviors * age groups Medellin. SPSS Output.***

$Behavior *D1b Crosstabulation

			Age groups				
			22-25	26-29	30-33	34 years and older	Total
Cross-channel shopping behaviors[a]	After researching a product online, I bought it offline (e.g. in-store, catalogue)	Count	6	7	7	4	24
		% within Behaviors	25.0%	29.2%	29.2%	16.7%	
		% within Age groups	100.0%	77.8%	100.0%	66.7%	
		% of Total	21.4%	25.0%	25.0%	14.3%	85.7%
	After testing and looking at a product in-store, I bought it over the Internet.	Count	5	6	2	4	17
		% within Behaviors	29.4%	35.3%	11.8%	23.5%	
		% within Age groups	83.3%	66.7%	28.6%	66.7%	
		% of Total	17.9%	21.4%	7.1%	14.3%	60.7%
	First, I researched a product online, afterwards I tried it in-store, but bought it over the Internet finally.	Count	3	6	2	3	14
		% within Behaviors	21.4%	42.9%	14.3%	21.4%	
		% within Age groups	50.0%	66.7%	28.6%	50.0%	
		% of Total	10.7%	21.4%	7.1%	10.7%	50.0%
	I purchased a product via my mobile device(s) when I was not at home.	Count	2	8	3	4	17
		% within Behaviors	11.8%	47.1%	17.6%	23.5%	
		% within Age groups	33.3%	88.9%	42.9%	66.7%	
		% of Total	7.1%	28.6%	10.7%	14.3%	60.7%
	I purchased a product online and picked it up in a local store.	Count	3	5	4	2	14
		% within Behaviors	21.4%	35.7%	28.6%	14.3%	
		% within Age groups	50.0%	55.6%	57.1%	33.3%	
		% of Total	10.7%	17.9%	14.3%	7.1%	50.0%
Total		Count	6	9	7	6	28
		% of Total	21.4%	32.1%	25.0%	21.4%	100.0%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Appendix 7: General channel usage along the four phases of the customer journey (DOROPOCO)

Münster

Table 1. ***Discovery phase channel frequencies Münster. SPSS Output.***

$Discovery Frequencies

		Responses		Percent of Cases
		N	Percent	
Discovery[a]	Brick-and-mortar store	29	10.7%	96.7%
	Printed catalog	23	8.5%	76.7%
	Television/radio	13	4.8%	43.3%
	Printed newspaper/magazine	16	5.9%	53.3%
	Online magazine	9	3.3%	30.0%
	Online video	11	4.1%	36.7%
	Search engine (e.g. Google)	24	8.9%	80.0%
	Company website	18	6.7%	60.0%
	Recommendations by family/friends	28	10.4%	93.3%

	Online product reviews & rating sites (comments by other consumers or experts)	24	8.9%	80.0%
	Social networks, blogs, user forums	18	6.7%	60.0%
	Online shop	24	8.9%	80.0%
	Online marketplace (e.g. Amazon, eBay)	24	8.9%	80.0%
	E-mail	2	0.7%	6.7%
	Mobile app	6	2.2%	20.0%
	Telephone	1	0.4%	3.3%
Total		270	100.0%	900.0%

a. Dichotomy group tabulated at value 1.

Table 2. ***Research phase channel frequencies Münster. SPSS Output.***

$Information Frequencies

		Responses		Percent of Cases
		N	Percent	
Information[a]	Brick-and-mortar store	27	11.5%	90.0%
	Printed catalog	13	5.5%	43.3%
	Television/radio	2	0.9%	6.7%
	Printed newspaper/magazine	10	4.3%	33.3%
	Online magazine	11	4.7%	36.7%
	Online video	13	5.5%	43.3%
	Search engine (e.g. Google)	27	11.5%	90.0%
	Company website	21	8.9%	70.0%
	Recommendations by family/friends	19	8.1%	63.3%
	Online product reviews & rating sites (comments by other consumers or experts)	24	10.2%	80.0%
	Social networks, blogs, user forums	13	5.5%	43.3%
	Online shop	22	9.4%	73.3%
	Online marketplace (e.g. Amazon, eBay)	24	10.2%	80.0%
	Mobile app	6	2.6%	20.0%
	Telephone	3	1.3%	10.0%
Total		235	100.0%	783.3%

a. Dichotomy group tabulated at value 1.

Table 3. ***Purchase phase channel frequencies Münster. SPSS Output.***

$Purchase Frequencies

		Responses		Percent of Cases
		N	Percent	
Purchase[a]	Brick-and-mortar store	30	26.1%	100.0%
	Printed catalog	14	12.2%	46.7%
	Telephone	4	3.5%	13.3%
	Online shop	28	24.3%	93.3%
	Online marketplace (e.g. Amazon, eBay)	27	23.5%	90.0%
	Social media	4	3.5%	13.3%
	Mobile App	8	7.0%	26.7%
Total		115	100.0%	383.3%

a. Dichotomy group tabulated at value 1.

Table 4. ***Evaluation phase channel frequencies Münster. SPSS Output.***

$Evaluation Frequencies

		Responses		Percent of Cases
		N	Percent	
Evaluation[a]	Brick-and-mortar store	10	10.6%	33.3%
	Telephone	1	1.1%	3.3%
	Mail	2	2.1%	6.7%
	Brand's website	7	7.4%	23.3%
	E-mail	3	3.2%	10.0%
	Social networks, blogs, user forums	11	11.7%	36.7%
	Online product rating & comparison sites	14	14.9%	46.7%
	Online marketplace (e.g. Amazon, eBay)	17	18.1%	56.7%
	Mobile app	9	9.6%	30.0%
	Friends/family	18	19.1%	60.0%
	I haven't evaluated or commented on my shopping experience.	2	2.1%	6.7%
Total		94	100.0%	313.3%

Medellin

Table 5. ***Discovery phase channel frequencies Medellin. SPSS Output.***

$Discovery Frequencies

		Responses		Percent of Cases
		N	Percent	
Discovery Phase[a]	Brick-and-mortar store	28	11.6%	93.3%
	Printed catalog	18	7.5%	60.0%
	Television/radio	15	6.2%	50.0%
	Printed newspaper/magazine	9	3.7%	30.0%
	Online magazines	13	5.4%	43.3%
	Online videos	15	6.2%	50.0%
	Search engine (e.g. Google)	16	6.6%	53.3%
	Company website	18	7.5%	60.0%
	Recommendations by family/friends	16	6.6%	53.3%
	online product reviews & rating sites	7	2.9%	23.3%
	Social networks, blogs, user forums	20	8.3%	66.7%
	Online shop	17	7.1%	56.7%
	Online marketplace (e.g. Amazon, eBay)	15	6.2%	50.0%
	E-mail	15	6.2%	50.0%
	Mobile app	12	5.0%	40.0%
	Telephone	7	2.9%	23.3%
Total		241	100.0%	803.3%

a. Dichotomy group tabulated at value 1.

Table 6. ***Research phase channel frequencies Medellin. SPSS Output.***

$Research Frequencies

		Responses		Percent of Cases
		N	Percent	
Research phase[a]	Brick-and-mortar store	19	11.9%	63.3%
	Printed catalog	6	3.8%	20.0%
	Television/radio	1	0.6%	3.3%
	Printed newspaper/magazine	3	1.9%	10.0%
	Online magazines	12	7.5%	40.0%
	Online videos	8	5.0%	26.7%
	Search engine (e.g. Google)	23	14.5%	76.7%
	Company website	23	14.5%	76.7%
	Recommendations by family/friends	8	5.0%	26.7%
	online product reviews & rating sites	7	4.4%	23.3%
	Social networks, blogs, user forums	11	6.9%	36.7%
	Online shop	14	8.8%	46.7%
	Online marketplace (e.g. Amazon, eBay)	12	7.5%	40.0%
	E-mail	7	4.4%	23.3%
	Mobile app	4	2.5%	13.3%
	Telephone	1	0.6%	3.3%
Total		159	100.0%	530.0%

a. Dichotomy group tabulated at value 1.

Table 7. ***Purchase phase channel frequencies Medellin. SPSS Output.***

$Purchase Frequencies

		Responses		Percent of Cases
		N	Percent	
Purchase phase[a]	Brick-and-mortar store	28	23.7%	93.3%
	Printed catalog	15	12.7%	50.0%
	TV	1	0.8%	3.3%
	Telephone	8	6.8%	26.7%
	Online shop	22	18.6%	73.3%
	Online marketplace (e.g. Amazon, eBay)	21	17.8%	70.0%
	Social media	10	8.5%	33.3%
	Mobile app	13	11.0%	43.3%
Total		118	100.0%	393.3%

a. Dichotomy group tabulated at value 1.

Table 8. ***Evaluation phase channel frequencies Medellin. SPSS Output.***

$Evaluation Frequencies

		Responses		Percent of Cases
		N	Percent	
Evaluation phase[a]	Brick-and-mortar store	9	11.8%	30.0%
	Telephone	7	9.2%	23.3%
	Brand's website	10	13.2%	33.3%
	E-Mail	8	10.5%	26.7%
	Social networks, blogs, user forums	7	9.2%	23.3%
	Online product ratings or comparison sites	4	5.3%	13.3%
	Online marketplace (e.g. Amazon, eBay)	8	10.5%	26.7%
	Mobile app	8	10.5%	26.7%
	Friends/family	10	13.2%	33.3%
	I haven't evaluated or commented on my shopping experience.	5	6.6%	16.7%
Total		76	100.0%	253.3%

a. Dichotomy group tabulated at value 1.

Appendix 8: Channel usage along the four phases of the customer journey during the last purchase

Münster

Table 1. ***Discovery phase channel frequencies Münster. SPSS Output.***

When you think of your last purchase, through which channel did you... a) ... discover the product?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Brick-and-mortar store	16	53.3	53.3	53.3
	Search engine (e.g. Google)	1	3.3	3.3	56.7
	Company website	1	3.3	3.3	60.0
	Recommendations by family/friends	2	6.7	6.7	66.7
	Online product reviews & rating sites (comments by other consumers or experts)	1	3.3	3.3	70.0
	Social networks, blogs, user forums	3	10.0	10.0	80.0
	Online shop	2	6.7	6.7	86.7
	Online marketplace (e.g. Amazon, eBay)	3	10.0	10.0	96.7
	Mobile app	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 2. ***Research phase channel frequencies Münster. SPSS Output.***

$Last_Search Frequencies

		Responses		Percent of Cases
		N	Percent	
Last Information Search[a]	Brick-and-mortar store	16	24.2%	53.3%
	Online magazine	1	1.5%	3.3%
	Online video	3	4.5%	10.0%
	Search engine (e.g. Google)	8	12.1%	26.7%
	Company website	4	6.1%	13.3%
	Recommendations by family/friends	4	6.1%	13.3%

	Online product reviews & rating sites (comments by other consumers or experts)	8	12.1%	26.7%
	Social networks, blogs, user forums	2	3.0%	6.7%
	Online shop	8	12.1%	26.7%
	Online marketplace (e.g. Amazon, eBay)	8	12.1%	26.7%
	Mobile app	1	1.5%	3.3%
	I didn't look for more information.	3	4.5%	10.0%
Total		66	100.0%	220.0%

a. Dichotomy group tabulated at value 1.

Table 3. ***Purchase phase channel frequencies Münster. SPSS Output.***

c) ... purchase the product?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Brick-and-mortar store	20	66.7	66.7	66.7
	Online shop	6	20.0	20.0	86.7
	Online marketplace (e.g. Amazon, eBay)	3	10.0	10.0	96.7
	Mobile App	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 4. ***Evaluation phase channel frequencies Münster. SPSS Output.***

$Last_Evaluation Frequencies

		Responses		Percent of Cases
		N	Percent	
Last Evaluation[a]	Brick-and-mortar store	3	8.6%	10.0%
	Brand's website	1	2.9%	3.3%
	E-mail	1	2.9%	3.3%
	Online product rating & comparison sites	4	11.4%	13.3%
	Online marketplace (e.g. Amazon, eBay)	5	14.3%	16.7%
	Friends/family	6	17.1%	20.0%

	I haven't evaluated or commented on my shopping experience.	15	42.9%	50.0%
Total		35	100.0%	116.7%

a. Dichotomy group tabulated at value 1.

Medellin

Table 5. ***Discovery phase channel frequencies Medellin. SPSS Output.***

When you think of your last purchase, through which channel did you... a) ... discover the product?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Brick-and-mortar store	11	36.7	36.7	36.7
	Company website	5	16.7	16.7	53.3
	Recommendations by family/friends	2	6.7	6.7	60.0
	Social networks, blogs, user forums	4	13.3	13.3	73.3
	Online marketplace (e.g. Amayon, eBay)	1	3.3	3.3	76.7
	Printed catalog	1	3.3	3.3	80.0
	Mobile application	2	6.7	6.7	86.7
	Online shop	3	10.0	10.0	96.7
	Online magazines	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 6. ***Research phase channel frequencies Medellin. SPSS Output.***

$LastResearch Frequencies

		Responses		Percent of Cases
		N	Percent	
Research - last purchase[a]	Brick-and-mortar store	13	15.9%	43.3%
	Online magazines	2	2.4%	6.7%
	Online videos	2	2.4%	6.7%
	Search engine tools (e.g. Google)	18	22.0%	60.0%
	Company website	11	13.4%	36.7%
	Recommendations by family/friends	3	3.7%	10.0%
	Online product reviews & rating sites	6	7.3%	20.0%
	Social networks, blogs, user forums	7	8.5%	23.3%
	Online shop	8	9.8%	26.7%
	Online marketplace (e.g. Amazon, eBay)	4	4.9%	13.3%
	Mobile app	4	4.9%	13.3%
	Telephone	1	1.2%	3.3%
	I did not look for more information.	3	3.7%	10.0%
Total		82	100.0%	273.3%

a. Dichotomy group tabulated at value 1.

Table 7. ***Purchase phase channel frequencies Medellin. SPSS Output.***

c) ... purchase the product?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	physical store	12	40.0	40.0	40.0
	catalog	1	3.3	3.3	43.3
	online shop	7	23.3	23.3	66.7
	online marketplace (e.g. amazon, eBay)	6	20.0	20.0	86.7
	social media	2	6.7	6.7	93.3
	mobile app	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Table 8. ***Evaluation phase channel frequencies Medellin. SPSS Output.***

		Responses	
		N	Percent
Last Evaluation[a]	Brick-and-mortar store	3	10.0%
	Telephone	1	3.3%
	Mail	0	0%
	Brand's website	3	10.0%
	E-mail	5	16.7%
	Social networks, blogs, user forums	2	6.7%
	Online product rating & comparison sites	4	13.3%
	Online marketplace (e.g. Amazon, eBay)	2	6.7%
	Mobile app	1	3.3%
	Friends/family	3	10.0%
	I haven't evaluated or commented on my shopping experience.	16	53.3%

Appendix 9: Correlations between channels used along the last purchase process

Münster

Table 1. *Crosstabulation Discovery phase * Research phase Münster. SPSS Output.*

B5a*$Research Crosstabulation

			Research phase[a]												
			Brick-and-mortar store	Online magazine	Online video	Search engine (e.g. Google)	Company website	Recommendations by family/friends	Online product reviews & rating sites (comments by other consumers or experts)	Social networks, blogs, user forums	Online shop	Online marketplace (e.g. Amazon, eBay)	Mobile app	I didn't look for more information.	Total
When you think of your last purchase, through which channel did you... a) ... discover the product?	Brick-and-mortar store	Count	11	1	1	3	3	0	2	2	2	2	0	3	16
		% within B5a	68.8%	6.2%	6.2%	18.8%	18.8%	0.0%	12.5%	12.5%	12.5%	12.5%	0.0%	18.8%	
		% within $Research	68.8%	100.0%	33.3%	37.5%	75.0%	0.0%	25.0%	100.0%	25.0%	25.0%	0.0%	100.0%	
		% of Total	36.7%	3.3%	3.3%	10.0%	10.0%	0.0%	6.7%	6.7%	6.7%	6.7%	0.0%	10.0%	53.3%
	Search engine (e.g. Google)	Count	0	0	0	1	0	0	0	0	0	1	0	0	1
		% within B5a	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	
		% within $Research	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	
		% of Total	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	3.3%
	Company website	Count	0	0	1	1	0	1	1	0	1	0	0	0	1
		% within B5a	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	
		% within $Research	0.0%	0.0%	33.3%	12.5%	0.0%	25.0%	12.5%	0.0%	12.5%	0.0%	0.0%	0.0%	
		% of Total	0.0%	0.0%	3.3%	3.3%	0.0%	3.3%	3.3%	0.0%	3.3%	0.0%	0.0%	0.0%	3.3%
	Recommendations by family/friends	Count	1	0	0	1	1	1	1	0	0	0	0	0	2
		% within B5a	50.0%	0.0%	0.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
		% within $Research	6.2%	0.0%	0.0%	12.5%	25.0%	25.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
		% of Total	3.3%	0.0%	0.0%	3.3%	3.3%	3.3%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%
	Online product reviews & rating sites (comments by other consumers or experts)	Count	0	0	1	0	0	0	1	0	1	0	0	0	1
		% within B5a	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	
		% within $Research	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	12.5%	0.0%	12.5%	0.0%	0.0%	0.0%	
		% of Total	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	3.3%	0.0%	3.3%	0.0%	0.0%	0.0%	3.3%
	Social networks, blogs, user forums	Count	3	0	0	1	0	2	2	0	2	2	0	0	3
		% within B5a	100.0%	0.0%	0.0%	33.3%	0.0%	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%	0.0%	
		% within $Research	18.8%	0.0%	0.0%	12.5%	0.0%	50.0%	25.0%	0.0%	25.0%	25.0%	0.0%	0.0%	
		% of Total	10.0%	0.0%	0.0%	3.3%	0.0%	6.7%	6.7%	0.0%	6.7%	6.7%	0.0%	0.0%	10.0%
	Online shop	Count	0	0	0	0	0	0	1	0	2	0	0	0	2
		% within B5a	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	100.0%	0.0%	0.0%	0.0%	
		% within $Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%	25.0%	0.0%	0.0%	0.0%	
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	6.7%	0.0%	0.0%	0.0%	6.7%
	Online marketplace (e.g. Amazon, eBay)	Count	1	0	0	1	0	0	0	0	0	3	0	0	3
		% within B5a	33.3%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	
		% within $Research	6.2%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	37.5%	0.0%	0.0%	
		% of Total	3.3%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	10.0%
	Mobile app	Count	0	0	0	0	0	0	0	0	0	0	1	0	1
		% within B5a	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	
		% within $Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	
		% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	3.3%
Total		Count	16	1	3	8	4	4	8	2	8	8	1	3	30
		% of Total	53.3%	3.3%	10.0%	26.7%	13.3%	13.3%	26.7%	6.7%	26.7%	26.7%	3.3%	10.0%	100.0%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Table 2. ***Crosstabulation Research phase Brick-and-mortar store * Purchase phase Münster. SPSS Output.***

Brick-and-mortar store * c) ... purchase the product? Crosstabulation

			c) ... purchase the product?				
			Brick-and-mortar store	Online shop	Online marketplace (e.g. Amazon, eBay)	Mobile App	Total
Brick-and-mortar store	Nicht Gewählt	Count	4	6	3	1	14
		% within Brick-and-mortar store	28.6%	42.9%	21.4%	7.1%	100.0%
		% within c) ... purchase the product?	20.0%	100.0%	100.0%	100.0%	46.7%
		% of Total	13.3%	20.0%	10.0%	3.3%	46.7%
	Ja	Count	16	0	0	0	16
		% within Brick-and-mortar store	100.0%	0.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	80.0%	0.0%	0.0%	0.0%	53.3%
		% of Total	53.3%	0.0%	0.0%	0.0%	53.3%
Total		Count	20	6	3	1	30
		% within Brick-and-mortar store	66.7%	20.0%	10.0%	3.3%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	66.7%	20.0%	10.0%	3.3%	100.0%

Table 2b. ***Test of interrelation Cramer's V Münster. SPSS Output.***

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.756	.001
	Cramer's V	.756	.001
N of Valid Cases		30	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Table 3. ***Crosstabulation Research phase Search engine * Purchase phase Münster. SPSS Output.***

Search engine (e.g. Google) * c) ... purchase the product? Crosstabulation

			c) ... purchase the product?				
			Brick-and-mortar store	Online shop	Online marketplace (e.g. Amazon, eBay)	Mobile App	Total
Search engine (e.g. Google)	Nicht Gewählt	Count	15	4	2	1	22
		% within Search engine (e.g. Google)	68.2%	18.2%	9.1%	4.5%	100.0%
		% within c) ... purchase the product?	75.0%	66.7%	66.7%	100.0%	73.3%
		% of Total	50.0%	13.3%	6.7%	3.3%	73.3%
	Ja	Count	5	2	1	0	8
		% within Search engine (e.g. Google)	62.5%	25.0%	12.5%	0.0%	100.0%
		% within c) ... purchase the product?	25.0%	33.3%	33.3%	0.0%	26.7%
		% of Total	16.7%	6.7%	3.3%	0.0%	26.7%
Total		Count	20	6	3	1	30
		% within Search engine (e.g. Google)	66.7%	20.0%	10.0%	3.3%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	66.7%	20.0%	10.0%	3.3%	100.0%

Table 4. ***Crosstabulation Research phase Online ratings/reviews * Purchase phase Münster. SPSS Output.***

Online product reviews & rating sites (comments by other consumers or experts) * c) ... purchase the product? Crosstabulation

			c) ... purchase the product?				
			Brick-and-mortar store	Online shop	Online marketplace (e.g. Amazon, eBay)	Mobile App	Total
Online product reviews & rating sites (comments by other consumers or experts)	Nicht Gewählt	Count	16	2	3	1	22
		% within Online product reviews & rating sites (comments by other consumers or experts)	72.7%	9.1%	13.6%	4.5%	100.0%
		% within c) ... purchase the product?	80.0%	33.3%	100.0%	100.0%	73.3%
		% of Total	53.3%	6.7%	10.0%	3.3%	73.3%
	Ja	Count	4	4	0	0	8
		% within Online product reviews & rating sites (comments by other consumers or experts)	50.0%	50.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	20.0%	66.7%	0.0%	0.0%	26.7%
		% of Total	13.3%	13.3%	0.0%	0.0%	26.7%
Total		Count	20	6	3	1	30
		% within Online product reviews & rating sites (comments by other consumers or experts)	66.7%	20.0%	10.0%	3.3%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	66.7%	20.0%	10.0%	3.3%	100.0%

Table 5. ***Crosstabulation Research phase Online shop * Purchase phase Münster. SPSS Output.***

Online shop * c) ... purchase the product? Crosstabulation

			c) ... purchase the product?				
			Brick-and-mortar store	Online shop	Online marketplace (e.g. Amazon, eBay)	Mobile App	Total
Online shop	Nicht Gewählt	Count	16	2	3	1	22
		% within Online shop	72.7%	9.1%	13.6%	4.5%	100.0%
		% within c) ... purchase the product?	80.0%	33.3%	100.0%	100.0%	73.3%
		% of Total	53.3%	6.7%	10.0%	3.3%	73.3%
	Ja	Count	4	4	0	0	8
		% within Online shop	50.0%	50.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	20.0%	66.7%	0.0%	0.0%	26.7%
		% of Total	13.3%	13.3%	0.0%	0.0%	26.7%
Total		Count	20	6	3	1	30
		% within Online shop	66.7%	20.0%	10.0%	3.3%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	66.7%	20.0%	10.0%	3.3%	100.0%

Table 6. ***Crosstabulation Purchase channel * Evaluation Brick-and-mortar store Münster. SPSS Output.***

c) ... purchase the product? * Brick-and-mortar store Crosstabulation

			Brick-and-mortar store		
			Nicht Gewählt	Ja	Total
c) ... purchase the product?	Brick-and-mortar store	Count	17	3	20
		% within c) ... purchase the product?	85.0%	15.0%	100.0%
		% within Brick-and-mortar store	63.0%	100.0%	66.7%
		% of Total	56.7%	10.0%	66.7%
	Online shop	Count	6	0	6
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	22.2%	0.0%	20.0%
		% of Total	20.0%	0.0%	20.0%
	Online marketplace (e.g. Amazon, eBay)	Count	3	0	3
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	11.1%	0.0%	10.0%
		% of Total	10.0%	0.0%	10.0%
	Mobile App	Count	1	0	1
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	3.7%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
Total		Count	27	3	30
		% within c) ... purchase the product?	90.0%	10.0%	100.0%
		% within Brick-and-mortar store	100.0%	100.0%	100.0%
		% of Total	90.0%	10.0%	100.0%

Table 7. ***Crosstabulation Purchase channel * Evaluation Brand's website Münster. SPSS Output.***

c) ... purchase the product? * Brand's website Crosstabulation

			Brand's website		
			Nicht Gewählt	Ja	Total
c) ... purchase the product?	Brick-and-mortar store	Count	20	0	20
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brand's website	69.0%	0.0%	66.7%
		% of Total	66.7%	0.0%	66.7%
	Online shop	Count	5	1	6
		% within c) ... purchase the product?	83.3%	16.7%	100.0%
		% within Brand's website	17.2%	100.0%	20.0%
		% of Total	16.7%	3.3%	20.0%
	Online marketplace (e.g. Amazon, eBay)	Count	3	0	3
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brand's website	10.3%	0.0%	10.0%
		% of Total	10.0%	0.0%	10.0%
	Mobile App	Count	1	0	1
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brand's website	3.4%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
Total		Count	29	1	30
		% within c) ... purchase the product?	96.7%	3.3%	100.0%
		% within Brand's website	100.0%	100.0%	100.0%
		% of Total	96.7%	3.3%	100.0%

Table 8. ***Crosstabulation Purchase channel * Evaluation Online ratings/comparisons Münster. SPSS Output.***

c) ... purchase the product? * Online product rating & comparison sites Crosstabulation

			Online product rating & comparison sites		
			Nicht Gewählt	Ja	Total
c) ... purchase the product?	Brick-and-mortar store	Count	17	3	20
		% within c) ... purchase the product?	85.0%	15.0%	100.0%
		% within Online product rating & comparison sites	65.4%	75.0%	66.7%
		% of Total	56.7%	10.0%	66.7%
	Online shop	Count	5	1	6
		% within c) ... purchase the product?	83.3%	16.7%	100.0%
		% within Online product rating & comparison sites	19.2%	25.0%	20.0%
		% of Total	16.7%	3.3%	20.0%
	Online marketplace (e.g. Amazon, eBay)	Count	3	0	3
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Online product rating & comparison sites	11.5%	0.0%	10.0%
		% of Total	10.0%	0.0%	10.0%
	Mobile App	Count	1	0	1
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Online product rating & comparison sites	3.8%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
Total		Count	26	4	30
		% within c) ... purchase the product?	86.7%	13.3%	100.0%
		% within Online product rating & comparison sites	100.0%	100.0%	100.0%
		% of Total	86.7%	13.3%	100.0%

Table 9. ***Crosstabulation Purchase channel * Evaluation Online marketplace Münster. SPSS Output.***

c) ... purchase the product? * Online marketplace (e.g. Amazon, eBay) Crosstabulation

			Online marketplace (e.g. Amazon, eBay)		
			Nicht Gewählt	Ja	Total
c) ... purchase the product?	Brick-and-mortar store	Count	19	1	20
		% within c) ... purchase the product?	95.0%	5.0%	100.0%
		% within Online marketplace (e.g. Amazon, eBay)	76.0%	20.0%	66.7%
		% of Total	63.3%	3.3%	66.7%
	Online shop	Count	4	2	6
		% within c) ... purchase the product?	66.7%	33.3%	100.0%
		% within Online marketplace (e.g. Amazon, eBay)	16.0%	40.0%	20.0%
		% of Total	13.3%	6.7%	20.0%
	Online marketplace (e.g. Amazon, eBay)	Count	1	2	3
		% within c) ... purchase the product?	33.3%	66.7%	100.0%
		% within Online marketplace (e.g. Amazon, eBay)	4.0%	40.0%	10.0%
		% of Total	3.3%	6.7%	10.0%
	Mobile App	Count	1	0	1
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Online marketplace (e.g. Amazon, eBay)	4.0%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
Total		Count	25	5	30
		% within c) ... purchase the product?	83.3%	16.7%	100.0%
		% within Online marketplace (e.g. Amazon, eBay)	100.0%	100.0%	100.0%
		% of Total	83.3%	16.7%	100.0%

Table 10. ***Crosstabulation Purchase channel * No evaluation Münster. SPSS Output.***

c) ... purchase the product? * I haven't evaluated or commented on my shopping experience. Crosstabulation

			I haven't evaluated or commented on my shopping experience.		
			Nicht Gewählt	Ja	Total
c) ... purchase the product?	Brick-and-mortar store	Count	9	11	20
		% within c) ... purchase the product?	45.0%	55.0%	100.0%
		% within I haven't evaluated or commented on my shopping experience.	60.0%	73.3%	66.7%
		% of Total	30.0%	36.7%	66.7%
	Online shop	Count	3	3	6
		% within c) ... purchase the product?	50.0%	50.0%	100.0%
		% within I haven't evaluated or commented on my shopping experience.	20.0%	20.0%	20.0%
		% of Total	10.0%	10.0%	20.0%
	Online marketplace (e.g. Amazon, eBay)	Count	3	0	3
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within I haven't evaluated or commented on my shopping experience.	20.0%	0.0%	10.0%
		% of Total	10.0%	0.0%	10.0%
	Mobile App	Count	0	1	1
		% within c) ... purchase the product?	0.0%	100.0%	100.0%
		% within I haven't evaluated or commented on my shopping experience.	0.0%	6.7%	3.3%
		% of Total	0.0%	3.3%	3.3%
Total		Count	15	15	30
		% within c) ... purchase the product?	50.0%	50.0%	100.0%
		% within I haven't evaluated or commented on my shopping experience.	100.0%	100.0%	100.0%
		% of Total	50.0%	50.0%	100.0%

Table 11. *Crosstabulation Discovery channel * Purchase channel Münster. SPSS Output.*

When you think of your last purchase, through which channel did you... a) ... discover the product? * c) ... purchase the product? Crosstabulation

			c) ... purchase the product?				
			Brick-and-mortar store	Online shop	Online marketplace (e.g. Amazon, eBay)	Mobile App	Total
When you think of your last purchase, through which channel did you... a) ... discover the product?	Brick-and-mortar store	Count	15	0	1	0	16
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	93.8%	0.0%	6.2%	0.0%	100.0%
		% within c) ... purchase the product?	75.0%	0.0%	33.3%	0.0%	53.3%
		% of Total	50.0%	0.0%	3.3%	0.0%	53.3%
	Search engine (e.g. Google)	Count	0	1	0	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	0.0%	16.7%	0.0%	0.0%	3.3%
		% of Total	0.0%	3.3%	0.0%	0.0%	3.3%
	Company website	Count	0	1	0	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	0.0%	16.7%	0.0%	0.0%	3.3%
		% of Total	0.0%	3.3%	0.0%	0.0%	3.3%
	Recommendations by family/friends	Count	1	1	0	0	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	50.0%	50.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	5.0%	16.7%	0.0%	0.0%	6.7%
		% of Total	3.3%	3.3%	0.0%	0.0%	6.7%
	Online product reviews & rating sites (comments by other consumers or experts)	Count	0	1	0	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	0.0%	16.7%	0.0%	0.0%	3.3%
		% of Total	0.0%	3.3%	0.0%	0.0%	3.3%
	Social networks, blogs, user forums	Count	3	0	0	0	3
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	15.0%	0.0%	0.0%	0.0%	10.0%
		% of Total	10.0%	0.0%	0.0%	0.0%	10.0%
	Online shop	Count	0	2	0	0	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	0.0%	33.3%	0.0%	0.0%	6.7%
		% of Total	0.0%	6.7%	0.0%	0.0%	6.7%
	Online marketplace (e.g. Amazon, eBay)	Count	1	0	2	0	3
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	33.3%	0.0%	66.7%	0.0%	100.0%
		% within c) ... purchase the product?	5.0%	0.0%	66.7%	0.0%	10.0%
		% of Total	3.3%	0.0%	6.7%	0.0%	10.0%
	Mobile app	Count	0	0	0	1	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	0.0%	0.0%	100.0%	100.0%
		% within c) ... purchase the product?	0.0%	0.0%	0.0%	100.0%	3.3%
		% of Total	0.0%	0.0%	0.0%	3.3%	3.3%
Total		Count	20	6	3	1	30
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	66.7%	20.0%	10.0%	3.3%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	66.7%	20.0%	10.0%	3.3%	100.0%

Table 11a. ***Test of interrelation Cramer's V Münster. SPSS Output.***

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	1.509	.000
	Cramer's V	.871	.000
N of Valid Cases		30	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Medellin

Table 12. ***Crosstabulation Research phase Brick-and-mortar store * Purchase phase Medellin. SPSS Output.***

Brick-and-mortar store * c) ... purchase the product? Crosstabulation

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Brick-and-mortar store	Not selected	Count	3	0	5	6	2	1	17
		% within Brick-and-mortar store	17.6%	0.0%	29.4%	35.3%	11.8%	5.9%	100.0%
		% within c) ... purchase the product?	25.0%	0.0%	71.4%	100.0%	100.0%	50.0%	56.7%
		% of Total	10.0%	0.0%	16.7%	20.0%	6.7%	3.3%	56.7%
	Yes	Count	9	1	2	0	0	1	13
		% within Brick-and-mortar store	69.2%	7.7%	15.4%	0.0%	0.0%	7.7%	100.0%
		% within c) ... purchase the product?	75.0%	100.0%	28.6%	0.0%	0.0%	50.0%	43.3%
		% of Total	30.0%	3.3%	6.7%	0.0%	0.0%	3.3%	43.3%
Total		Count	12	1	7	6	2	2	30
		% within Brick-and-mortar store	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 12a. ***Test of interrelation Cramer's V Medellin. SPSS Output.***

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.658	.024
	Cramer's V	.658	.024
N of Valid Cases		30	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Table 13. ***Crosstabulation Discovery phase * Purchase phase Medellin. SPSS Output.***

When you think of your last purchase, through which channel did you... a) ... discover the product? * c) ... purchase the product? Crosstabulation

		c) ... purchase the product?						
		physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Brick-and-mortar store	Count	8	1	1	1	0	0	11
	within Discovery channel	72.7%	9.1%	9.1%	9.1%	0.0%	0.0%	100.0%
	within Purchase channel	66.7%	100.0%	14.3%	16.7%	0.0%	0.0%	36.7%
	% of Total	26.7%	3.3%	3.3%	3.3%	0.0%	0.0%	36.7%
Company website	Count	1	0	2	2	0	0	5
	within Discovery channel	20.0%	0.0%	40.0%	40.0%	0.0%	0.0%	100.0%
	within Purchase channel	8.3%	0.0%	28.6%	33.3%	0.0%	0.0%	16.7%
	% of Total	3.3%	0.0%	6.7%	6.7%	0.0%	0.0%	16.7%
Recommendations by family/friends	Count	0	0	0	2	0	0	2
	within Discovery channel	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
	within Purchase channel	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	6.7%
	% of Total	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%	6.7%
Social networks, blogs, user forums	Count	1	0	1	0	2	0	4
	within Discovery channel	25.0%	0.0%	25.0%	0.0%	50.0%	0.0%	100.0%
	within Purchase channel	8.3%	0.0%	14.3%	0.0%	100.0%	0.0%	13.3%
	% of Total	3.3%	0.0%	3.3%	0.0%	6.7%	0.0%	13.3%
Online marketplace (e.g. Amayon, eBay)	Count	0	0	0	1	0	0	1
	within Discovery channel	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
	within Purchase channel	0.0%	0.0%	0.0%	16.7%	0.0%	0.0%	3.3%
	% of Total	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	3.3%
Printed catalog	Count	1	0	0	0	0	0	1
	within Discovery channel	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	within Purchase channel	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%
	% of Total	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%
Mobile application	Count	0	0	0	0	0	2	2
	within Discovery channel	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	within Purchase channel	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	6.7%
	% of Total	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%	6.7%
Online shop	Count	1	0	2	0	0	0	3
	within Discovery channel	33.3%	0.0%	66.7%	0.0%	0.0%	0.0%	100.0%
	within Purchase channel	8.3%	0.0%	28.6%	0.0%	0.0%	0.0%	10.0%
	% of Total	3.3%	0.0%	6.7%	0.0%	0.0%	0.0%	10.0%
Online magazines	Count	0	0	1	0	0	0	1
	within Discovery channel	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
	within Purchase channel	0.0%	0.0%	14.3%	0.0%	0.0%	0.0%	3.3%
	% of Total	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	3.3%
Total	Count	12	1	7	6	2	2	30
	within Discovery channel	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
	within Purchase channel	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 13a. ***Test of interrelation Cramer's V Medellin. SPSS Output.***

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	1.539	.002
	Cramer's V	.688	.002
N of Valid Cases		30	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Table 14. ***Crosstabulation Discovery phase * Research Brick-and-mortar store Medellin. SPSS Output.***

Crosstab

			Brick-and-mortar store		
			Not selected	Yes	Total
When you think of your last purchase, through which channel did you... a) ... discover the product?	Brick-and-mortar store	Count	4	7	11
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	36.4%	63.6%	100.0%
		% within Brick-and-mortar store	23.5%	53.8%	36.7%
		% of Total	13.3%	23.3%	36.7%
	Company website	Count	3	2	5
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	60.0%	40.0%	100.0%
		% within Brick-and-mortar store	17.6%	15.4%	16.7%
		% of Total	10.0%	6.7%	16.7%
	Recommendations by family/friends	Count	2	0	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	11.8%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
	Social networks, blogs, user forums	Count	2	2	4
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	50.0%	50.0%	100.0%
		% within Brick-and-mortar store	11.8%	15.4%	13.3%
		% of Total	6.7%	6.7%	13.3%
	Online marketplace (e.g. Amazon, eBay)	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	5.9%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	Printed catalog	Count	0	1	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	100.0%
		% within Brick-and-mortar store	0.0%	7.7%	3.3%
		% of Total	0.0%	3.3%	3.3%
	Mobile application	Count	1	1	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	50.0%	50.0%	100.0%
		% within Brick-and-mortar store	5.9%	7.7%	6.7%
		% of Total	3.3%	3.3%	6.7%
	Online shop	Count	3	0	3
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	17.6%	0.0%	10.0%
		% of Total	10.0%	0.0%	10.0%
	Online magazines	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	5.9%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
Total		Count	17	13	30
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	56.7%	43.3%	100.0%
		% within Brick-and-mortar store	100.0%	100.0%	100.0%
		% of Total	56.7%	43.3%	100.0%

Table 15. ***Crosstabulation Discovery phase * Research Search engine Medellin. SPSS Output.***

Crosstab

			Search engine tools (e.g. Google)		
			Not selected	Yes	Total
When you think of your last purchase, through which channel did you... a) ... discover the product?	Brick-and-mortar store	Count	5	6	11
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	45.5%	54.5%	100.0%
		% within Search engine tools (e.g. Google)	41.7%	33.3%	36.7%
		% of Total	16.7%	20.0%	36.7%
	Company website	Count	1	4	5
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	20.0%	80.0%	100.0%
		% within Search engine tools (e.g. Google)	8.3%	22.2%	16.7%
		% of Total	3.3%	13.3%	16.7%
	Recommendations by family/friends	Count	1	1	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	50.0%	50.0%	100.0%
		% within Search engine tools (e.g. Google)	8.3%	5.6%	6.7%
		% of Total	3.3%	3.3%	6.7%
	Social networks, blogs, user forums	Count	3	1	4
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	75.0%	25.0%	100.0%
		% within Search engine tools (e.g. Google)	25.0%	5.6%	13.3%
		% of Total	10.0%	3.3%	13.3%
	Online marketplace (e.g. Amayon, eBay)	Count	0	1	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	100.0%
		% within Search engine tools (e.g. Google)	0.0%	5.6%	3.3%
		% of Total	0.0%	3.3%	3.3%
	Printed catalog	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Search engine tools (e.g. Google)	8.3%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	Mobile application	Count	0	2	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	100.0%
		% within Search engine tools (e.g. Google)	0.0%	11.1%	6.7%
		% of Total	0.0%	6.7%	6.7%
	Online shop	Count	0	3	3
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	100.0%
		% within Search engine tools (e.g. Google)	0.0%	16.7%	10.0%
		% of Total	0.0%	10.0%	10.0%
	Online magazines	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Search engine tools (e.g. Google)	8.3%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
Total		Count	12	18	30
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	40.0%	60.0%	100.0%
		% within Search engine tools (e.g. Google)	100.0%	100.0%	100.0%
		% of Total	40.0%	60.0%	100.0%

Table 16. ***Crosstabulation Discovery phase * Research Company website Medellin. SPSS Output.***

Crosstab

			Company website		
			Not selected	Yes	Total
When you think of your last purchase, through which channel did you... a) ... discover the product?	Brick-and-mortar store	Count	9	2	11
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	81.8%	18.2%	100.0%
		% within Company website	47.4%	18.2%	36.7%
		% of Total	30.0%	6.7%	36.7%
	Company website	Count	2	3	5
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	40.0%	60.0%	100.0%
		% within Company website	10.5%	27.3%	16.7%
		% of Total	6.7%	10.0%	16.7%
	Recommendations by family/friends	Count	1	1	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	50.0%	50.0%	100.0%
		% within Company website	5.3%	9.1%	6.7%
		% of Total	3.3%	3.3%	6.7%
	Social networks, blogs, user forums	Count	3	1	4
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	75.0%	25.0%	100.0%
		% within Company website	15.8%	9.1%	13.3%
		% of Total	10.0%	3.3%	13.3%
	Online marketplace (e.g. Amazon, eBay)	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Company website	5.3%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	Printed catalog	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Company website	5.3%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	Mobile application	Count	1	1	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	50.0%	50.0%	100.0%
		% within Company website	5.3%	9.1%	6.7%
		% of Total	3.3%	3.3%	6.7%
	Online shop	Count	1	2	3
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	33.3%	66.7%	100.0%
		% within Company website	5.3%	18.2%	10.0%
		% of Total	3.3%	6.7%	10.0%
	Online magazines	Count	0	1	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	100.0%
		% within Company website	0.0%	9.1%	3.3%
		% of Total	0.0%	3.3%	3.3%
Total		Count	19	11	30
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	63.3%	36.7%	100.0%
		% within Company website	100.0%	100.0%	100.0%
		% of Total	63.3%	36.7%	100.0%

Table 17. ***Crosstabulation Discovery phase * Research Online reviews/ratings Medellin. SPSS Output.***

Crosstab

			Online product reviews & rating sites		
			Not selected	Yes	Total
When you think of your last purchase, through which channel did you... a) ... discover the product?	Brick-and-mortar store	Count	9	2	11
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	81.8%	18.2%	100.0%
		% within Online product reviews & rating sites	37.5%	33.3%	36.7%
		% of Total	30.0%	6.7%	36.7%
	Company website	Count	3	2	5
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	60.0%	40.0%	100.0%
		% within Online product reviews & rating sites	12.5%	33.3%	16.7%
		% of Total	10.0%	6.7%	16.7%
	Recommendations by family/friends	Count	1	1	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	50.0%	50.0%	100.0%
		% within Online product reviews & rating sites	4.2%	16.7%	6.7%
		% of Total	3.3%	3.3%	6.7%
	Social networks, blogs, user forums	Count	4	0	4
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Online product reviews & rating sites	16.7%	0.0%	13.3%
		% of Total	13.3%	0.0%	13.3%
	Online marketplace (e.g. Amazon, eBay)	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Online product reviews & rating sites	4.2%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	Printed catalog	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Online product reviews & rating sites	4.2%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	Mobile application	Count	2	0	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Online product reviews & rating sites	8.3%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
	Online shop	Count	2	1	3
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	66.7%	33.3%	100.0%
		% within Online product reviews & rating sites	8.3%	16.7%	10.0%
		% of Total	6.7%	3.3%	10.0%
	Online magazines	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Online product reviews & rating sites	4.2%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
Total		Count	24	6	30
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	80.0%	20.0%	100.0%
		% within Online product reviews & rating sites	100.0%	100.0%	100.0%
		% of Total	80.0%	20.0%	100.0%

Table 18. ***Crosstabulation Discovery phase * Research social networks, blogs, forums Medellin. SPSS Output.***

Crosstab

			Social networks, blogs, user forums		
			Not selected	Yes	Total
When you think of your last purchase, through which channel did you... a) ... discover the product?	Brick-and-mortar store	Count	8	3	11
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	72.7%	27.3%	100.0%
		% within Social networks, blogs, user forums	34.8%	42.9%	36.7%
		% of Total	26.7%	10.0%	36.7%
	Company website	Count	4	1	5
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	80.0%	20.0%	100.0%
		% within Social networks, blogs, user forums	17.4%	14.3%	16.7%
		% of Total	13.3%	3.3%	16.7%
	Recommendations by family/friends	Count	0	2	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	100.0%
		% within Social networks, blogs, user forums	0.0%	28.6%	6.7%
		% of Total	0.0%	6.7%	6.7%
	Social networks, blogs, user forums	Count	3	1	4
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	75.0%	25.0%	100.0%
		% within Social networks, blogs, user forums	13.0%	14.3%	13.3%
		% of Total	10.0%	3.3%	13.3%
	Online marketplace (e.g. Amazon, eBay)	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Social networks, blogs, user forums	4.3%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	Printed catalog	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Social networks, blogs, user forums	4.3%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	Mobile application	Count	2	0	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Social networks, blogs, user forums	8.7%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
	Online shop	Count	3	0	3
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Social networks, blogs, user forums	13.0%	0.0%	10.0%
		% of Total	10.0%	0.0%	10.0%
	Online magazines	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Social networks, blogs, user forums	4.3%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
Total		Count	23	7	30
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	76.7%	23.3%	100.0%
		% within Social networks, blogs, user forums	100.0%	100.0%	100.0%
		% of Total	76.7%	23.3%	100.0%

Table 19. ***Crosstabulation Discovery phase * Research Online shop Medellin. SPSS Output.***

Crosstab

			Online shop		
			Not selected	Yes	Total
When you think of your last purchase, through which channel did you... a) ... discover the product?	Brick-and-mortar store	Count	9	2	11
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	81.8%	18.2%	100.0%
		% within Online shop	40.9%	25.0%	36.7%
		% of Total	30.0%	6.7%	36.7%
	Company website	Count	3	2	5
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	60.0%	40.0%	100.0%
		% within Online shop	13.6%	25.0%	16.7%
		% of Total	10.0%	6.7%	16.7%
	Recommendations by family/friends	Count	0	2	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	100.0%
		% within Online shop	0.0%	25.0%	6.7%
		% of Total	0.0%	6.7%	6.7%
	Social networks, blogs, user forums	Count	4	0	4
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Online shop	18.2%	0.0%	13.3%
		% of Total	13.3%	0.0%	13.3%
	Online marketplace (e.g. Amazon, eBay)	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Online shop	4.5%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	Printed catalog	Count	0	1	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	0.0%	100.0%	100.0%
		% within Online shop	0.0%	12.5%	3.3%
		% of Total	0.0%	3.3%	3.3%
	Mobile application	Count	2	0	2
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Online shop	9.1%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
	Online shop	Count	2	1	3
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	66.7%	33.3%	100.0%
		% within Online shop	9.1%	12.5%	10.0%
		% of Total	6.7%	3.3%	10.0%
	Online magazines	Count	1	0	1
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	100.0%	0.0%	100.0%
		% within Online shop	4.5%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
Total		Count	22	8	30
		% within When you think of your last purchase, through which channel did you... a) ... discover the product?	73.3%	26.7%	100.0%
		% within Online shop	100.0%	100.0%	100.0%
		% of Total	73.3%	26.7%	100.0%

Table 20. ***Crosstabulation Research search engine * Purchase channel Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Search engine tools (e.g. Google)	Not selected	Count	6	0	2	2	2	0	12
		% within Search engine tools (e.g. Google)	50.0%	0.0%	16.7%	16.7%	16.7%	0.0%	100.0%
		% within c) ... purchase the product?	50.0%	0.0%	28.6%	33.3%	100.0%	0.0%	40.0%
		% of Total	20.0%	0.0%	6.7%	6.7%	6.7%	0.0%	40.0%
	Yes	Count	6	1	5	4	0	2	18
		% within Search engine tools (e.g. Google)	33.3%	5.6%	27.8%	22.2%	0.0%	11.1%	100.0%
		% within c) ... purchase the product?	50.0%	100.0%	71.4%	66.7%	0.0%	100.0%	60.0%
		% of Total	20.0%	3.3%	16.7%	13.3%	0.0%	6.7%	60.0%
Total		Count	12	1	7	6	2	2	30
		% within Search engine tools (e.g. Google)	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 21. ***Crosstabulation Research company website * Purchase channel Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Company website	Not selected	Count	8	1	3	4	2	1	19
		% within Company website	42.1%	5.3%	15.8%	21.1%	10.5%	5.3%	100.0%
		% within c) ... purchase the product?	66.7%	100.0%	42.9%	66.7%	100.0%	50.0%	63.3%
		% of Total	26.7%	3.3%	10.0%	13.3%	6.7%	3.3%	63.3%
	Ja	Count	4	0	4	2	0	1	11
		% within Company website	36.4%	0.0%	36.4%	18.2%	0.0%	9.1%	100.0%
		% within c) ... purchase the product?	33.3%	0.0%	57.1%	33.3%	0.0%	50.0%	36.7%
		% of Total	13.3%	0.0%	13.3%	6.7%	0.0%	3.3%	36.7%
Total		Count	12	1	7	6	2	2	30
		% within Company website	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 22. ***Crosstabulation Research online product reviews * Purchase channel Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Online product reviews & rating sites	Not selected	Count	12	1	4	3	2	2	24
		% within Online product reviews & rating sites	50.0%	4.2%	16.7%	12.5%	8.3%	8.3%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	57.1%	50.0%	100.0%	100.0%	80.0%
		% of Total	40.0%	3.3%	13.3%	10.0%	6.7%	6.7%	80.0%
	Yes	Count	0	0	3	3	0	0	6
		% within Online product reviews & rating sites	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	0.0%	0.0%	42.9%	50.0%	0.0%	0.0%	20.0%
		% of Total	0.0%	0.0%	10.0%	10.0%	0.0%	0.0%	20.0%
Total		Count	12	1	7	6	2	2	30
		% within Online product reviews & rating sites	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 23. ***Crosstabulation Research social networks/blogs/forums * Purchase channel Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Social networks, blogs, user forums	Not selected	Count	9	1	7	2	2	2	23
		% within Social networks, blogs, user forums	39.1%	4.3%	30.4%	8.7%	8.7%	8.7%	100.0%
		% within c) ... purchase the product?	75.0%	100.0%	100.0%	33.3%	100.0%	100.0%	76.7%
		% of Total	30.0%	3.3%	23.3%	6.7%	6.7%	6.7%	76.7%
	Yes	Count	3	0	0	4	0	0	7
		% within Social networks, blogs, user forums	42.9%	0.0%	0.0%	57.1%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	25.0%	0.0%	0.0%	66.7%	0.0%	0.0%	23.3%
		% of Total	10.0%	0.0%	0.0%	13.3%	0.0%	0.0%	23.3%
Total		Count	12	1	7	6	2	2	30
		% within Social networks, blogs, user forums	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 24. ***Crosstabulation Research online shop * Purchase channel Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Online shop	Not selected	Count	9	1	5	3	2	2	22
		% within Online shop	40.9%	4.5%	22.7%	13.6%	9.1%	9.1%	100.0%
		% within c) ... purchase the product?	75.0%	100.0%	71.4%	50.0%	100.0%	100.0%	73.3%
		% of Total	30.0%	3.3%	16.7%	10.0%	6.7%	6.7%	73.3%
	Yes	Count	3	0	2	3	0	0	8
		% within Online shop	37.5%	0.0%	25.0%	37.5%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	25.0%	0.0%	28.6%	50.0%	0.0%	0.0%	26.7%
		% of Total	10.0%	0.0%	6.7%	10.0%	0.0%	0.0%	26.7%
Total		Count	12	1	7	6	2	2	30
		% within Online shop	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 25. ***Crosstabulation Research online marketplace * Purchase channel Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Online marketplace (e.g. Amazon, eBay)	Yes	Count	1	0	1	1	0	1	4
		% within Online marketplace (e.g. Amazon, eBay)	25.0%	0.0%	25.0%	25.0%	0.0%	25.0%	100.0%
		% within c) ... purchase the product?	8.3%	0.0%	14.3%	16.7%	0.0%	50.0%	13.3%
		% of Total	3.3%	0.0%	3.3%	3.3%	0.0%	3.3%	13.3%
	Not selected	Count	11	1	6	5	2	1	26
		% within Online marketplace (e.g. Amazon, eBay)	42.3%	3.8%	23.1%	19.2%	7.7%	3.8%	100.0%
		% within c) ... purchase the product?	91.7%	100.0%	85.7%	83.3%	100.0%	50.0%	86.7%
		% of Total	36.7%	3.3%	20.0%	16.7%	6.7%	3.3%	86.7%
Total		Count	12	1	7	6	2	2	30
		% within Online marketplace (e.g. Amazon, eBay)	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 26. ***Crosstabulation Research Mobile app * Purchase channel Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Mobile app	Not selected	Count	9	1	7	6	2	1	26
		% within Mobile app	34.6%	3.8%	26.9%	23.1%	7.7%	3.8%	100.0%
		% within c) ... purchase the product?	75.0%	100.0%	100.0%	100.0%	100.0%	50.0%	86.7%
		% of Total	30.0%	3.3%	23.3%	20.0%	6.7%	3.3%	86.7%
	Yes	Count	3	0	0	0	0	1	4
		% within Mobile app	75.0%	0.0%	0.0%	0.0%	0.0%	25.0%	100.0%
		% within c) ... purchase the product?	25.0%	0.0%	0.0%	0.0%	0.0%	50.0%	13.3%
		% of Total	10.0%	0.0%	0.0%	0.0%	0.0%	3.3%	13.3%
Total		Count	12	1	7	6	2	2	30
		% within Mobile app	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 27. ***Crosstabulation Purchase channels * Evaluation brick-and-mortar store Medellin. SPSS Output.***

Crosstab

			Brick-and-mortar store		
			Not selected	Yes	Total
c) ... purchase the product?	physical store	Count	10	2	12
		% within c) ... purchase the product?	83.3%	16.7%	100.0%
		% within Brick-and-mortar store	37.0%	66.7%	40.0%
		% of Total	33.3%	6.7%	40.0%
	catalog	Count	1	0	1
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	3.7%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	online shop	Count	6	1	7
		% within c) ... purchase the product?	85.7%	14.3%	100.0%
		% within Brick-and-mortar store	22.2%	33.3%	23.3%
		% of Total	20.0%	3.3%	23.3%
	online marketplace (e.g. amazon, eBay)	Count	6	0	6
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	22.2%	0.0%	20.0%
		% of Total	20.0%	0.0%	20.0%
	social media	Count	2	0	2
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	7.4%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
	mobile app	Count	2	0	2
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brick-and-mortar store	7.4%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
Total		Count	27	3	30
		% within c) ... purchase the product?	90.0%	10.0%	100.0%
		% within Brick-and-mortar store	100.0%	100.0%	100.0%
		% of Total	90.0%	10.0%	100.0%

Table 28. ***Crosstabulation Purchase channels * Evaluation brand's website Medellin. SPSS Output.***

Crosstab

			Brand's website		
			Not selected	Yes	Total
c) ... purchase the product?	physical store	Count	10	2	12
		% within c) ... purchase the product?	83.3%	16.7%	100.0%
		% within Brand's website	37.0%	66.7%	40.0%
		% of Total	33.3%	6.7%	40.0%
	catalog	Count	1	0	1
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brand's website	3.7%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	online shop	Count	6	1	7
		% within c) ... purchase the product?	85.7%	14.3%	100.0%
		% within Brand's website	22.2%	33.3%	23.3%
		% of Total	20.0%	3.3%	23.3%
	online marketplace (e.g. amazon, eBay)	Count	6	0	6
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brand's website	22.2%	0.0%	20.0%
		% of Total	20.0%	0.0%	20.0%
	social media	Count	2	0	2
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brand's website	7.4%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
	mobile app	Count	2	0	2
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Brand's website	7.4%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
Total		Count	27	3	30
		% within c) ... purchase the product?	90.0%	10.0%	100.0%
		% within Brand's website	100.0%	100.0%	100.0%
		% of Total	90.0%	10.0%	100.0%

Table 29. ***Crosstabulation Purchase channels * Evaluation E-mail Medellin. SPSS Output.***

Crosstab

			E-mail		
			Not selected	Yes	Total
c) ... purchase the product?	physical store	Count	8	4	12
		% within c) ... purchase the product?	66.7%	33.3%	100.0%
		% within E-mail	32.0%	80.0%	40.0%
		% of Total	26.7%	13.3%	40.0%
	catalog	Count	1	0	1
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within E-mail	4.0%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	online shop	Count	6	1	7
		% within c) ... purchase the product?	85.7%	14.3%	100.0%
		% within E-mail	24.0%	20.0%	23.3%
		% of Total	20.0%	3.3%	23.3%
	online marketplace (e.g. amazon, eBay)	Count	6	0	6
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within E-mail	24.0%	0.0%	20.0%
		% of Total	20.0%	0.0%	20.0%
	social media	Count	2	0	2
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within E-mail	8.0%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
	mobile app	Count	2	0	2
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within E-mail	8.0%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
Total		Count	25	5	30
		% within c) ... purchase the product?	83.3%	16.7%	100.0%
		% within E-mail	100.0%	100.0%	100.0%
		% of Total	83.3%	16.7%	100.0%

Table 30. ***Crosstabulation Purchase channels * Evaluation Social media Medellin. SPSS Output.***

Crosstab

			Social networks, blogs, user forums		
			Not selected	Yes	Total
c) ... purchase the product?	physical store	Count	11	1	12
		% within c) ... purchase the product?	91.7%	8.3%	100.0%
		% within Social networks, blogs, user forums	39.3%	50.0%	40.0%
		% of Total	36.7%	3.3%	40.0%
	catalog	Count	1	0	1
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Social networks, blogs, user forums	3.6%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	online shop	Count	6	1	7
		% within c) ... purchase the product?	85.7%	14.3%	100.0%
		% within Social networks, blogs, user forums	21.4%	50.0%	23.3%
		% of Total	20.0%	3.3%	23.3%
	online marketplace (e.g. amazon, eBay)	Count	6	0	6
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Social networks, blogs, user forums	21.4%	0.0%	20.0%
		% of Total	20.0%	0.0%	20.0%
	social media	Count	2	0	2
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Social networks, blogs, user forums	7.1%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
	mobile app	Count	2	0	2
		% within c) ... purchase the product?	100.0%	0.0%	100.0%
		% within Social networks, blogs, user forums	7.1%	0.0%	6.7%
		% of Total	6.7%	0.0%	6.7%
Total		Count	28	2	30
		% within c) ... purchase the product?	93.3%	6.7%	100.0%
		% within Social networks, blogs, user forums	100.0%	100.0%	100.0%
		% of Total	93.3%	6.7%	100.0%

Appendix 10: Correlation between number of channels used for shopping and the mobile devices owned

Münster

Table 1. ***Contingency table Smartphone owners * Number of channels Münster. SPSS Output.***

Crosstab

			When you want to buy a product, how many different channels do you typically use during your purchase process? Channel refers to the medium you use in order to discover, investigate, buy and evaluate a product: e.g. Internet, brick-and-mortar store, tel					
			one	two	three	four	more than four	Total
Smartphone	Nicht Gewählt	Count	1	0	0	0	0	1
		% within Smartphone	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
		% within When you want to buy a product, how many different channels do you typically use during your purchase process? Channel refers to the medium you use in order to discover, investigate, buy and evaluate a product: e.g. Internet, brick-and-mortar store, tel	50.0%	0.0%	0.0%	0.0%	0.0%	3.3%
		% of Total	3.3%	0.0%	0.0%	0.0%	0.0%	3.3%
	Ja	Count	1	17	6	2	3	29
		% within Smartphone	3.4%	58.6%	20.7%	6.9%	10.3%	100.0%
		% within When you want to buy a product, how many different channels do you typically use during your purchase process? Channel refers to the medium you use in order to discover, investigate, buy and evaluate a product: e.g. Internet, brick-and-mortar store, tel	50.0%	100.0%	100.0%	100.0%	100.0%	96.7%
		% of Total	3.3%	56.7%	20.0%	6.7%	10.0%	96.7%
Total		Count	2	17	6	2	3	30
		% within Smartphone	6.7%	56.7%	20.0%	6.7%	10.0%	100.0%
		% within When you want to buy a product, how many different channels do you typically use during your purchase process? Channel refers to the medium you use in order to discover, investigate, buy and evaluate a product: e.g. Internet, brick-and-mortar store, tel	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	6.7%	56.7%	20.0%	6.7%	10.0%	100.0%

Medellin

Table 2. ***Contingency table Devices owned * Number of channels Medellin. SPSS Output.***

$A1b*B1 Crosstabulation

			How many different channels do you use during shopping?					
			one	two	three	four	more than four	Total
Devices[a]	Laptop	Count	2	18	6	1	1	28
		% within Devices	7.1%	64.3%	21.4%	3.6%	3.6%	
		% within No. channels	100.0%	94.7%	85.7%	100.0%	100.0%	
		% of Total	6.7%	60.0%	20.0%	3.3%	3.3%	93.3%
	Smartphone	Count	2	17	6	1	1	27
		% within Devices	7.4%	63.0%	22.2%	3.7%	3.7%	
		% within No. channels	100.0%	89.5%	85.7%	100.0%	100.0%	
		% of Total	6.7%	56.7%	20.0%	3.3%	3.3%	90.0%
	Desktop Computer	Count	1	5	2	1	1	10
		% within Devices	10.0%	50.0%	20.0%	10.0%	10.0%	
		% within No. channels	50.0%	26.3%	28.6%	100.0%	100.0%	
		% of Total	3.3%	16.7%	6.7%	3.3%	3.3%	33.3%
	Tablet	Count	1	8	1	0	1	11
		% within Devices	9.1%	72.7%	9.1%	0.0%	9.1%	
		% within No. channels	50.0%	42.1%	14.3%	0.0%	100.0%	
		% of Total	3.3%	26.7%	3.3%	0.0%	3.3%	36.7%
Total		Count	2	19	7	1	1	30
		% of Total	6.7%	63.3%	23.3%	3.3%	3.3%	100.0%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Appendix 11: Correlation between devices owned and channels used for purchasing products.

Münster

Table 1. ***Contingency table Desktop PC owners * Purchase channels Münster. SPSS Output.***

Crosstab

			c) ... purchase the product?				
			Brick-and-mortar store	Online shop	Online marketplace (e.g. Amazon, eBay)	Mobile App	Total
Desktop Computer	Nicht Gewählt	Count	16	3	2	1	22
		% within Desktop Computer	72.7%	13.6%	9.1%	4.5%	100.0%
		% within c) ... purchase the product?	80.0%	50.0%	66.7%	100.0%	73.3%
		% of Total	53.3%	10.0%	6.7%	3.3%	73.3%
	Ja	Count	4	3	1	0	8
		% within Desktop Computer	50.0%	37.5%	12.5%	0.0%	100.0%
		% within c) ... purchase the product?	20.0%	50.0%	33.3%	0.0%	26.7%
		% of Total	13.3%	10.0%	3.3%	0.0%	26.7%
Total		Count	20	6	3	1	30
		% within Desktop Computer	66.7%	20.0%	10.0%	3.3%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	66.7%	20.0%	10.0%	3.3%	100.0%

Table 2. ***Contingency table Smartphone owners * Purchase channels Münster. SPSS Output.***

A1_2*$Purchase Crosstabulation

			Channels used for purchasing[a]					
			Brick-and-mortar store	Online shop	Online marketplace (e.g. Amazon, eBay)	Social media	Mobile app	Total
Smartphone	Not selected	Count	3	2	1	0	0	3
		% within Smartphone	100.0%	66.7%	33.3%	0.0%	0.0%	
		% within Channel	10.7%	9.1%	4.8%	0.0%	0.0%	
		% of Total	10.0%	6.7%	3.3%	0.0%	0.0%	10.0%
	Yes	Count	25	20	20	10	13	27
		% within Smartphone	92.6%	74.1%	74.1%	37.0%	48.1%	
		% within Channel	89.3%	90.9%	95.2%	100.0%	100.0%	
		% of Total	83.3%	66.7%	66.7%	33.3%	43.3%	90.0%
Total		Count	28	22	21	10	13	30
		% of Total	93.3%	73.3%	70.0%	33.3%	43.3%	100.0%

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Table 3. ***Contingency table Tablet owners * Purchase channels Münster. SPSS Output.***

Crosstab

			c) ... purchase the product?				
			Brick-and-mortar store	Online shop	Online marketplace (e.g. Amazon, eBay)	Mobile App	Total
Tablet	Nicht Gewählt	Count	9	2	2	1	14
		% within Tablet	64.3%	14.3%	14.3%	7.1%	100.0%
		% within c) ... purchase the product?	45.0%	33.3%	66.7%	100.0%	46.7%
		% of Total	30.0%	6.7%	6.7%	3.3%	46.7%
	Ja	Count	11	4	1	0	16
		% within Tablet	68.8%	25.0%	6.2%	0.0%	100.0%
		% within c) ... purchase the product?	55.0%	66.7%	33.3%	0.0%	53.3%
		% of Total	36.7%	13.3%	3.3%	0.0%	53.3%
Total		Count	20	6	3	1	30
		% within Tablet	66.7%	20.0%	10.0%	3.3%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	66.7%	20.0%	10.0%	3.3%	100.0%

Table 4. ***Contingency table Laptop owners * Purchase channels Münster. SPSS Output.***

Crosstab

			c) ... purchase the product?				
			Brick-and-mortar store	Online shop	Online marketplace (e.g. Amazon, eBay)	Mobile App	Total
Laptop	Nicht Gewählt	Count	1	0	0	0	1
		% within Laptop	100.0%	0.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	5.0%	0.0%	0.0%	0.0%	3.3%
		% of Total	3.3%	0.0%	0.0%	0.0%	3.3%
	Ja	Count	19	6	3	1	29
		% within Laptop	65.5%	20.7%	10.3%	3.4%	100.0%
		% within c) ... purchase the product?	95.0%	100.0%	100.0%	100.0%	96.7%
		% of Total	63.3%	20.0%	10.0%	3.3%	96.7%
Total		Count	20	6	3	1	30
		% within Laptop	66.7%	20.0%	10.0%	3.3%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	66.7%	20.0%	10.0%	3.3%	100.0%

Medellin

Table 5. ***Contingency table Smartphone owners * Purchase channels Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Smartphone	Not selected	Count	3	0	0	0	0	0	3
		% within Smartphone	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%
		% of Total	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%
	Yes	Count	9	1	7	6	2	2	27
		% within Smartphone	33.3%	3.7%	25.9%	22.2%	7.4%	7.4%	100.0%
		% within c) ... purchase the product?	75.0%	100.0%	100.0%	100.0%	100.0%	100.0%	90.0%
		% of Total	30.0%	3.3%	23.3%	20.0%	6.7%	6.7%	90.0%
Total		Count	12	1	7	6	2	2	30
		% within Smartphone	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 6. ***Contingency table Tablet owners * Purchase channels Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Tablet	Not selected	Count	7	1	5	4	1	1	19
		% within Tablet	36.8%	5.3%	26.3%	21.1%	5.3%	5.3%	100.0%
		% within c) ... purchase the product?	58.3%	100.0%	71.4%	66.7%	50.0%	50.0%	63.3%
		% of Total	23.3%	3.3%	16.7%	13.3%	3.3%	3.3%	63.3%
	Yes	Count	5	0	2	2	1	1	11
		% within Tablet	45.5%	0.0%	18.2%	18.2%	9.1%	9.1%	100.0%
		% within c) ... purchase the product?	41.7%	0.0%	28.6%	33.3%	50.0%	50.0%	36.7%
		% of Total	16.7%	0.0%	6.7%	6.7%	3.3%	3.3%	36.7%
Total		Count	12	1	7	6	2	2	30
		% within Tablet	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 7. ***Contingency table Laptop owners * Purchase channels Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Laptop	Nicht Gewählt	Count	1	0	1	0	0	0	2
		% within Laptop	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%	100.0%
		% within c) ... purchase the product?	8.3%	0.0%	14.3%	0.0%	0.0%	0.0%	6.7%
		% of Total	3.3%	0.0%	3.3%	0.0%	0.0%	0.0%	6.7%
	Yes	Count	11	1	6	6	2	2	28
		% within Laptop	39.3%	3.6%	21.4%	21.4%	7.1%	7.1%	100.0%
		% within c) ... purchase the product?	91.7%	100.0%	85.7%	100.0%	100.0%	100.0%	93.3%
		% of Total	36.7%	3.3%	20.0%	20.0%	6.7%	6.7%	93.3%
Total		Count	12	1	7	6	2	2	30
		% within Laptop	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Table 8. ***Contingency table Desktop PC owners * Purchase channels Medellin. SPSS Output.***

Crosstab

			c) ... purchase the product?						
			physical store	catalog	online shop	online marketplace (e.g. amazon, eBay)	social media	mobile app	Total
Desktop Computer	Not selected	Count	8	1	5	5	1	0	20
		% within Desktop Computer	40.0%	5.0%	25.0%	25.0%	5.0%	0.0%	100.0%
		% within c) ... purchase the product?	66.7%	100.0%	71.4%	83.3%	50.0%	0.0%	66.7%
		% of Total	26.7%	3.3%	16.7%	16.7%	3.3%	0.0%	66.7%
	Yes	Count	4	0	2	1	1	2	10
		% within Desktop Computer	40.0%	0.0%	20.0%	10.0%	10.0%	20.0%	100.0%
		% within c) ... purchase the product?	33.3%	0.0%	28.6%	16.7%	50.0%	100.0%	33.3%
		% of Total	13.3%	0.0%	6.7%	3.3%	3.3%	6.7%	33.3%
Total		Count	12	1	7	6	2	2	30
		% within Desktop Computer	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%
		% within c) ... purchase the product?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	40.0%	3.3%	23.3%	20.0%	6.7%	6.7%	100.0%

Appendix 12: Importance of given elements for a positive shopping experience

Münster

Table 1. *Descriptive statistics Positive customer experience Münster. SPSS Output*

Statistics How important are the following elements to you for a positive customer experience?

		Ability to interact with the company over multiple channels (e.g. in-person, e-mail, social media)	Access to more in-depth product information in stores through technology	Consistency of product information and price across channels	A more personalized experience with relevant offers and recommendations based on my interests
N	Valid	30	30	30	30
	Missing	0	0	0	0
Mean		2.50	2.50	2.30	2.83
Median		2.00	2.00	2.00	3.00
Std. Deviation		1.167	.974	.952	1.085
Variance		1.362	.948	.907	1.178
Minimum		1	1	1	1
Maximum		5	5	4	5
Percentiles	25	1.75	2.00	1.75	2.00
	50	2.00	2.00	2.00	3.00
	75	3.25	3.00	3.00	3.25

Statistics

		Ongoing engagement with the company after the purchase has concluded	Company representatives have my client information across all channels	Option to pick up delivery in closest store	Option to return online purchase and get money back in-store
N	Valid	30	30	30	30

	Missing	0	0	0	0
Mean		3.63	3.27	2.47	1.93
Median		4.00	3.50	2.00	2.00
Std. Deviation		1.217	1.363	1.167	1.081
Variance		1.482	1.857	1.361	1.168
Minimum		1	1	1	1
Maximum		5	5	5	5
	25	3.00	2.00	1.75	1.00
Percentiles	50	4.00	3.50	2.00	2.00
	75	5.00	4.00	3.25	2.00

Statistics

		Contactless payment methods (e.g. via NFC technology)
N	Valid	30
	Missing	0
Mean		3.53
Median		4.00
Std. Deviation		1.358
Variance		1.844
Minimum		1
Maximum		5
	25	3.00
Percentiles	50	4.00
	75	5.00

Table 2. ***"Ability to interact with the company over multiple channels" Münster. SPSS Output***

Ability to interact with the company over multiple channels (e.g. in-person, e-mail, social media)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	7	23.3	23.3	23.3
	high	9	30.0	30.0	53.3
	medium	7	23.3	23.3	76.7
	low	6	20.0	20.0	96.7
	very low	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 3. ***"Access to more in-depth product information in stores through technology" Münster. SPSS Output***

Access to more in-depth product information in stores through technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	3	10.0	10.0	10.0
	high	15	50.0	50.0	60.0
	medium	7	23.3	23.3	83.3
	low	4	13.3	13.3	96.7
	very low	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 4. ***"Consistency of product information and price across channels" Münster. SPSS Output***

Consistency of product information and price across channels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	7	23.3	23.3	23.3
	high	10	33.3	33.3	56.7
	medium	10	33.3	33.3	90.0
	low	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Table 5. ***"A more personalized experience with relevant offers and recommendations based on my interests" Münster. SPSS Output***

A more personalized experience with relevant offers and recommendations based on my interests

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	2	6.7	6.7	6.7
	high	11	36.7	36.7	43.3
	medium	10	33.3	33.3	76.7
	low	4	13.3	13.3	90.0
	very low	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Table 6. ***"Ongoing engagement with the company after the purchase has concluded" Münster. SPSS Output***

Ongoing engagement with the company after the purchase has concluded

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	2	6.7	6.7	6.7
	high	4	13.3	13.3	20.0
	medium	5	16.7	16.7	36.7
	low	11	36.7	36.7	73.3
	very low	8	26.7	26.7	100.0
	Total	30	100.0	100.0	

Table 7. ***"Company representatives have my client information across all channels" Münster. SPSS Output.***

Company representatives have my client information across all channels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	5	16.7	16.7	16.7
	high	3	10.0	10.0	26.7
	medium	7	23.3	23.3	50.0
	low	9	30.0	30.0	80.0
	very low	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

Table 8. ***"Option to pick up delivery in closest store" Münster. SPSS Output.***

Option to pick up delivery in closest store

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	7	23.3	23.3	23.3
	high	10	33.3	33.3	56.7
	medium	6	20.0	20.0	76.7
	low	6	20.0	20.0	96.7
	very low	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 9. ***"Option to return online purchase and get money back in-store" Münster. SPSS Output.***

Option to return online purchase and get money back in-store

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	12	40.0	40.0	40.0
	high	13	43.3	43.3	83.3
	medium	1	3.3	3.3	86.7
	low	3	10.0	10.0	96.7
	very low	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 10. ***"Contactless payment methods (e.g. via NFC technology)" Münster. SPSS Output.***

Contactless payment methods (e.g. via NFC technology)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	4	13.3	13.3	13.3
	high	2	6.7	6.7	20.0
	medium	7	23.3	23.3	43.3
	low	8	26.7	26.7	70.0
	very low	9	30.0	30.0	100.0
	Total	30	100.0	100.0	

Medellin

Table 11. ***Descriptive statistics Positive customer experience Medellin. SPSS Output.***

Statistics

		Ability to interact with the company over multiple channels	Access to more in-depth product information in stores through technology	Consistency of product information and price across channels	A more personalized experience with relevant offers and recommendations based on my interests	Ongoing engagement with the company after the purchase has concluded	Company representatives have my client information across all channels	Option to pick up delivery in closest store	Option to return online purchase and get money back in-store	Contactless payment methods
N	Valid	30	30	30	30	30	30	30	30	30
	Missing	0	0	0	0	0	0	0	0	0
Mean		1.80	1.70	1.57	1.93	2.90	3.17	2.40	1.90	1.90
Median		2.00	2.00	1.00	2.00	3.00	3.50	2.00	2.00	2.00
Std. Deviation		.805	.750	.858	.868	1.029	1.206	1.221	.995	.960
Variance		.648	.562	.737	.754	1.059	1.454	1.490	.990	.921
Minimum		1	1	1	1	1	1	1	1	1
Maximum		4	3	5	4	5	5	5	4	4
Percentiles	25	1.00	1.00	1.00	1.00	2.00	2.00	1.75	1.00	1.00
	50	2.00	2.00	1.00	2.00	3.00	3.50	2.00	2.00	2.00
	75	2.00	2.00	2.00	2.00	4.00	4.00	3.00	3.00	2.00

Table 12. ***"Ability to interact with the company over multiple channels" Medellin. SPSS Output.***

Ability to interact with the company over multiple channels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	12	40.0	40.0	40.0
	high	13	43.3	43.3	83.3
	medium	4	13.3	13.3	96.7
	low	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 13. ***"Access to more in-depth product information in stores through technology" Medellin. SPSS Output.***

Access to more in-depth product information in stores through technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	14	46.7	46.7	46.7
	high	11	36.7	36.7	83.3
	medium	5	16.7	16.7	100.0
	Total	30	100.0	100.0	

Table 14. ***Consistency of product information and price across channels Medellin. SPSS Output.***

Consistency of product information and price across channels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	17	56.7	56.7	56.7
	high	11	36.7	36.7	93.3
	medium	1	3.3	3.3	96.7
	very low	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 15. ***A more personalized experience Medellin. SPSS Output.***

A more personalized experience with relevant offers and recommendations based on my interests

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	10	33.3	33.3	33.3
	high	14	46.7	46.7	80.0
	medium	4	13.3	13.3	93.3
	low	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Table 16. ***Ongoing engagement with the company after the purchase Medellin. SPSS Output.***

Ongoing engagement with the company after the purchase has concluded

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	4	13.3	13.3	13.3
	high	4	13.3	13.3	26.7
	medium	14	46.7	46.7	73.3
	low	7	23.3	23.3	96.7
	very low	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 17. ***Company representatives have my client information across all channels Medellin. SPSS Output.***

Company representatives have my client information across all channels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	3	10.0	10.0	10.0
	high	7	23.3	23.3	33.3
	medium	5	16.7	16.7	50.0
	low	12	40.0	40.0	90.0
	very low	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Table 18. ***Option to pick up delivery in closest store Medellin. SPSS Output.***

Option to pick up delivery in closest store

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	7	23.3	23.3	23.3
	high	12	40.0	40.0	63.3
	medium	6	20.0	20.0	83.3
	low	2	6.7	6.7	90.0
	very low	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Table 19. ***Option to return online purchase and get money back in-store Medellin. SPSS Output.***

Option to return online purchase and get money back in-store

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	14	46.7	46.7	46.7
	high	7	23.3	23.3	70.0
	medium	7	23.3	23.3	93.3
	low	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Table 20. ***Contactless payment methods Medellin. SPSS Output.***

Contactless payment methods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very high	12	40.0	40.0	40.0
	high	12	40.0	40.0	80.0
	medium	3	10.0	10.0	90.0
	low	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Appendix 13: Importance of given elements for a positive shopping experience according to gender

Münster

Table 1. ***Crosstabulation Positive customer experience * gender Münster. SPSS Output.***

Crosstab

			Please give your gender.		
			weiblich	männlich	Total
Ability to interact with the company over multiple channels (e.g. in-person, e-mail, social media)	very high	Count	5	2	7
		% within Ability to interact with the company over multiple channels (e.g. in-person, e-mail, social media)	71.4%	28.6%	100.0%
		% within Please give your gender.	26.3%	18.2%	23.3%
		% of Total	16.7%	6.7%	23.3%
	high	Count	5	4	9
		% within Ability to interact with the company over multiple channels (e.g. in-person, e-mail, social media)	55.6%	44.4%	100.0%
		% within Please give your gender.	26.3%	36.4%	30.0%
		% of Total	16.7%	13.3%	30.0%
	medium	Count	3	4	7
		% within Ability to interact with the company over multiple channels (e.g. in-person, e-mail, social media)	42.9%	57.1%	100.0%
		% within Please give your gender.	15.8%	36.4%	23.3%
		% of Total	10.0%	13.3%	23.3%
	low	Count	5	1	6
		% within Ability to interact with the company over multiple channels (e.g. in-person, e-mail, social media)	83.3%	16.7%	100.0%
		% within Please give your gender.	26.3%	9.1%	20.0%
		% of Total	16.7%	3.3%	20.0%
	very low	Count	1	0	1
		% within Ability to interact with the company over multiple channels (e.g. in-person, e-mail, social media)	100.0%	0.0%	100.0%
		% within Please give your gender.	5.3%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
Total		Count	19	11	30
		% within Ability to interact with the company over multiple channels (e.g. in-person, e-mail, social media)	63.3%	36.7%	100.0%
		% within Please give your gender.	100.0%	100.0%	100.0%
		% of Total	63.3%	36.7%	100.0%

Medellin

Table 2a. ***Crosstabulation Positive customer experience * gender Medellin. SPSS Output.***

Crosstab

			Gender		
			weiblich	männlich	Total
Ability to interact with the company over multiple channels	very high	Count	6	6	12
		% within Ability to interact with the company over multiple channels	50.0%	50.0%	100.0%
		% within Gender	46.2%	35.3%	40.0%
		% of Total	20.0%	20.0%	40.0%
	high	Count	4	9	13
		% within Ability to interact with the company over multiple channels	30.8%	69.2%	100.0%
		% within Gender	30.8%	52.9%	43.3%
		% of Total	13.3%	30.0%	43.3%
	medium	Count	3	1	4
		% within Ability to interact with the company over multiple channels	75.0%	25.0%	100.0%
		% within Gender	23.1%	5.9%	13.3%
		% of Total	10.0%	3.3%	13.3%
	low	Count	0	1	1
		% within Ability to interact with the company over multiple channels	0.0%	100.0%	100.0%
		% within Gender	0.0%	5.9%	3.3%
		% of Total	0.0%	3.3%	3.3%
Total		Count	13	17	30
		% within Ability to interact with the company over multiple channels	43.3%	56.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.3%	56.7%	100.0%

Table 2b. ***Crosstabulation Positive customer experience * gender Medellin. SPSS Output.***

Crosstab

			Gender		
			weiblich	männlich	Total
Consistency of product information and price across channels	very high	Count	7	10	17
		% within Consistency of product information and price across channels	41.2%	58.8%	100.0%
		% within Gender	53.8%	58.8%	56.7%
		% of Total	23.3%	33.3%	56.7%
	high	Count	5	6	11
		% within Consistency of product information and price across channels	45.5%	54.5%	100.0%
		% within Gender	38.5%	35.3%	36.7%
		% of Total	16.7%	20.0%	36.7%
	medium	Count	1	0	1
		% within Consistency of product information and price across channels	100.0%	0.0%	100.0%
		% within Gender	7.7%	0.0%	3.3%
		% of Total	3.3%	0.0%	3.3%
	very low	Count	0	1	1
		% within Consistency of product information and price across channels	0.0%	100.0%	100.0%
		% within Gender	0.0%	5.9%	3.3%
		% of Total	0.0%	3.3%	3.3%
Total		Count	13	17	30
		% within Consistency of product information and price across channels	43.3%	56.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.3%	56.7%	100.0%

Table 2c. ***Crosstabulation Positive customer experience * gender Medellin. SPSS Output.***

Crosstab

			Gender		
			weiblich	männlich	Total
Option to pick up delivery in closest store	very high	Count	6	1	7
		% within Option to pick up delivery in closest store	85.7%	14.3%	100.0%
		% within Gender	46.2%	5.9%	23.3%
		% of Total	20.0%	3.3%	23.3%
	high	Count	5	7	12
		% within Option to pick up delivery in closest store	41.7%	58.3%	100.0%
		% within Gender	38.5%	41.2%	40.0%
		% of Total	16.7%	23.3%	40.0%
	medium	Count	1	5	6
		% within Option to pick up delivery in closest store	16.7%	83.3%	100.0%
		% within Gender	7.7%	29.4%	20.0%
		% of Total	3.3%	16.7%	20.0%
	low	Count	1	1	2
		% within Option to pick up delivery in closest store	50.0%	50.0%	100.0%
		% within Gender	7.7%	5.9%	6.7%
		% of Total	3.3%	3.3%	6.7%
	very low	Count	0	3	3
		% within Option to pick up delivery in closest store	0.0%	100.0%	100.0%
		% within Gender	0.0%	17.6%	10.0%
		% of Total	0.0%	10.0%	10.0%
Total		Count	13	17	30
		% within Option to pick up delivery in closest store	43.3%	56.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.3%	56.7%	100.0%

Table 2d. ***Crosstabulation Positive customer experience * gender Medellin. SPSS Output.***

Crosstab

			Gender		
			weiblich	männlich	Total
Option to return online purchase and get money back in-store	very high	Count	8	6	14
		% within Option to return online purchase and get money back in-store	57.1%	42.9%	100.0%
		% within Gender	61.5%	35.3%	46.7%
		% of Total	26.7%	20.0%	46.7%
	high	Count	3	4	7
		% within Option to return online purchase and get money back in-store	42.9%	57.1%	100.0%
		% within Gender	23.1%	23.5%	23.3%
		% of Total	10.0%	13.3%	23.3%
	medium	Count	1	6	7
		% within Option to return online purchase and get money back in-store	14.3%	85.7%	100.0%
		% within Gender	7.7%	35.3%	23.3%
		% of Total	3.3%	20.0%	23.3%
	low	Count	1	1	2
		% within Option to return online purchase and get money back in-store	50.0%	50.0%	100.0%
		% within Gender	7.7%	5.9%	6.7%
		% of Total	3.3%	3.3%	6.7%
Total		Count	13	17	30
		% within Option to return online purchase and get money back in-store	43.3%	56.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.3%	56.7%	100.0%

Table 2e. ***Crosstabulation Positive customer experience * gender Medellin. SPSS Output.***

Crosstab

			Gender		
			weiblich	männlich	Total
Contactless payment methods	very high	Count	7	5	12
		% within Contactless payment methods	58.3%	41.7%	100.0%
		% within Gender	53.8%	29.4%	40.0%
		% of Total	23.3%	16.7%	40.0%
	high	Count	3	9	12
		% within Contactless payment methods	25.0%	75.0%	100.0%
		% within Gender	23.1%	52.9%	40.0%
		% of Total	10.0%	30.0%	40.0%
	medium	Count	1	2	3
		% within Contactless payment methods	33.3%	66.7%	100.0%
		% within Gender	7.7%	11.8%	10.0%
		% of Total	3.3%	6.7%	10.0%
	low	Count	2	1	3
		% within Contactless payment methods	66.7%	33.3%	100.0%
		% within Gender	15.4%	5.9%	10.0%
		% of Total	6.7%	3.3%	10.0%
Total		Count	13	17	30
		% within Contactless payment methods	43.3%	56.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.3%	56.7%	100.0%

Appendix 14: Questionnaire

English version

Omnichannel Shopping Behavior

Welcome to my survey!

Thank you for taking the time to complete this questionnaire and for supporting my thesis research.

My name is Janine Schulz, I'm an "International Business" student from the Pontifical Bolivarian University in Medellín, Colombia and the University of Applied Sciences of Münster, Germany. At this moment, I am working on my bachelor thesis about **omnichannel buying behavior.**

I therefore sincerely ask you to answer the following questions as complete as possible. The survey will take you approximately **10 minutes** to complete.

Your answers as a user of digital media and non-traditional sales channels are of **great importance** for the analysis of the omnichannel shopping behavior.

The information you provide will be treated confidentially and your participation remains absolutely anonymous, given that you are not required to indicate any personal data and the purely academic character of this study.

To thank you for your help an iTunes **voucher of 25€** will be raffled among all participants.

Thank you very much for your valuable contribution.

Use of mobile devices during the purchase process

The following questions are related to the usage of mobile devices (smartphone, tablet) during the buying process.

Which of the following do you own?

Please choose **all** that apply:

☐ Laptop

☐ Smartphone

☐ Desktop Computer

☐ Tablet

For which of the following purchase-related activities do you use your mobile devices?

Please choose **all** that apply:

☐ buying online

☐ paying online

☐ comparing offers and products

☐ commenting on my shopping experience and preferences

☐ checking offers or promotions

☐ exploring products and novelties

☐ finding stores nearby

☐ checking product details

☐ comparing prices online

☐ checking availability of products

☐ reading product evaluations or ratings

☐ reserving products

☐ receiving local offers via location-based services (GPS)

☐ paying contactless in-store (mobile wallet)

☐ liking or following brands on social networks (facebook, twitter, instagram, etc.)

☐ visiting seller's online shop or website

☐ consulting friends or other consumers on social networks

☐ I haven't used my mobile device for purchase-related activities.

While in-store, for which of the following activities have you already used your mobile device(s)? *

Please choose **all** that apply:

☐ check product details/information

☐ compare prices online

☐ buy the product online

☐ take photos of the product information

☐ scan coupons, barcodes or QR codes to access more information about a product

☐ visit competitors' web sites/online shops

☐ look for discounts and offers

☐ check availability of a product in other stores

☐ read online product evaluations or ratings by other consumers

☐ reserve a product

☐ I haven't used my mobile device for purchase-related activities in-store.

Use of multiple channels along the path to purchase

The following questions are related to your purchase pathway in traditional and online channels.

When you want to buy a product, how many different channels do you typically use during your purchase process?

Channel refers to the medium you use in order to discover, investigate, buy and evaluate a product. A channel, for example, could be the Internet, a brick-and-mortar store, a catalog, e-mail, social media, etc.

Please choose **only one** of the following:

○ one

○ two

○ three

○ four

○ more than four

Which of the following product categories do you buy exclusively online or offline and which do you buy both online and offline?

Offline channel refers to traditional stores, purchases via catalog or telephone, etc.

Online channel refers to purchases over the Internet and/or mobile devices.

Please choose the appropriate response for each item:

	offline and online channels	only online channels	only offline channels	I haven't bought a product of this category.
Groceries, alcoholic drinks	○	○	○	○
Clothing, shoes, and accessories	○	○	○	○
Event tickets (concerts, cinema, etc.)	○	○	○	○
Electronic equipment, mobile phone, tablet, etc.	○	○	○	○
Computer software and hardware	○	○	○	○
Hardcopy books, e-books, DVDs, CDs	○	○	○	○
Sporting goods	○	○	○	○
Cosmetics and personal care	○	○	○	○
Car, motorcycle and accesories	○	○	○	○
Baby supplies, toys and dolls	○	○	○	○

	offline and online channels	only online channels	only offline channels	I haven't bought a product of this category.
Flowers	○	○	○	○
Medicine	○	○	○	○
Furniture and decoration	○	○	○	○
Airline/bus/train tickets, hotel and tour reservations	○	○	○	○
Prepared food	○	○	○	○

Have you already followed one of these shopping behavioral patterns? *

Please choose the appropriate response for each item:

	Yes	No
After researching a product online, I bought it offline (e.g. in-store, catalog).	○	○
After testing and looking at a product in-store, I bought it over the Internet.	○	○
First, I researched a product online, afterwards I tried it in-store, but bought it over the Internet finally.	○	○
I purchased a product via my mobile device when I was not at home.	○	○
I purchased a product online and picked it up in a local store.	○	○

Through which channels have you already...

a**) ... discovered products?**

Please choose **all** that apply:

☐ Brick-and-mortar store

☐ Printed catalog

☐ Television/radio

☐ Printed newspaper/magazine

☐ Online magazine

☐ Online video

☐ Search engine (e.g. Google)

☐ Company website

☐ Recommendations by family/friends

☐ Online product reviews & rating sites (comments by other consumers or experts)

☐ Social networks, blogs, user forums

☐ Online shop

☐ Online marketplace (e.g. Amazon, eBay)

☐ E-mail

☐ Mobile app

☐ Telephone

b) ... searched for more information about products? *

Please choose **all** that apply:

☐ Brick-and-mortar store

☐ Printed catalog

☐ Television/radio

☐ Printed newspaper/magazine

☐ Online magazine

☐ Online video

☐ Search engine (e.g. Google)

☐ Company website

☐ Recommendations by family/friends

☐ Online product reviews & rating sites (comments by other consumers or experts)

☐ Social networks, blogs, user forums

☐ Online shop

☐ Online marketplace (e.g. Amazon, eBay)

☐ E-mail

☐ Mobile app

☐ Telephone

c) … purchased products? *

Please choose **all** that apply:

☐ Brick-and-mortar store

☐ Catalog

☐ Television

☐ Telephone

☐ Online shop

☐ Online marketplace (e.g. Amazon, eBay)

☐ Social media

☐ Mobile app

d) … evaluated or commented on your shopping experience? *

Please choose **all** that apply:

☐ Brick-and-mortar store

☐ Telephone

☐ Mail

☐ Brand's website

☐ E-mail

☐ Social networks, blogs, forums

☐ Online product ratings or comparison sites

☐ Online marketplace (e.g. Amazon, eBay)

☐ Mobile app

☐ Friends/family

☐ I haven't evaluated or commented on my shopping experience.

When you think of your last purchase, through which channel did you...

a) ... discover the product?

Please choose **only one** of the following:

○ Brick-and-mortar store

○ Printed catalog

○ Television/radio

○ Printed newspaper/magazine

○ Online magazine

○ Online video

○ Search engine (e.g. Google)

○ Company website

○ Recommendations by family/friends

○ Online product reviews & rating sites (comments by other consumers or experts)

○ Social networks, blogs, user forums

○ Online shop

○ Online marketplace (e.g. Amazon, eBay)

○ E-mail

○ Mobile app

○ Telephone

b) ... search for more information about the product? *

Please choose **all** that apply:

☐ Brick-and-mortar store

☐ Printed catalog

☐ Television/radio

☐ Printed newspaper/magazine

☐ Online magazine

☐ Online video

☐ Search engine (e.g. Google)

☐ Company website

☐ Recommendations by family/friends

☐ Online product reviews & rating sites (comments by other consumers or experts)

☐ Social networks, blogs, user forums

☐ Online shop

☐ Online marketplace (e.g. Amazon, eBay)

☐ E-mail

☐ Mobile app

☐ Telephone

☐ I didn't look for more information.

c) … purchase the product? *

Please choose **only one** of the following:

○ Brick-and-mortar store

○ Printed catalog

○ Television

○ Telephone

○ Online shop

○ Online marketplace (e.g. Amazon, eBay)

○ Social media

○ Mobile app

d) ... evaluate or comment on your shopping experience? *

Please choose all that apply:

☐ Brick-and-mortar store

☐ Telephone

☐ Mail

☐ Brand's website

☐ E-mail

☐ Social networks, blogs, forums

☐ Online product ratings or comparison sites

☐ Online marketplaces (e.g. Amazon, eBay)

☐ Mobile app

☐ Friends/family

☐ I haven't evaluated or commented on my shopping experience.

Shopping Experience

The following question includes different compenents which may create a positive shopping experience.

How important are the following elements to you for a positive customer experience?

Please choose the appropriate response for each item:

	very high	high	medium	low	very low
Ability to interact with the company over multiple channels (e.g. in-person, e-mail, social media)	○	○	○	○	○
Access to more in-depth product information in stores through technology	○	○	○	○	○
Consistency of product information and price across channels	○	○	○	○	○

	very high	high	medium	low	very low
A more personalized experience with relevant offers and recommendations based on my interests	○	○	○	○	○
Ongoing engagement with the company after the purchase has concluded	○	○	○	○	○
Company representatives have my client information across all channels	○	○	○	○	○
Option to pick up delivery in closest store	○	○	○	○	○
Option to return online purchase and get money back in-store	○	○	○	○	○
Contactless payment methods (e.g. via NFC technology)	○	○	○	○	○

Socio-demographic Variables

The following section contains questions regarding socio-demographic factors.

Please type in your age. *

Please write your answer here:

Please give your gender. *

Please choose **only one** of the following:

○ Female

○ Male

What kind of occupation do you have?

In case of having several occupations, please select the one which generates your highest monthly income.

Please choose **only one** of the following:

○ Senior Management

- ○ Director
- ○ Occupation in operative level
- ○ Occasional or temporary work
- ○ Independent work
- ○ Civil servant
- ○ Currently out of work/full-time student

Thank you for your participation and for supporting my research project.

Your answers are kept confidential and anonymized.

If you have any further questions about this survey, please do not hesitate to contact us: janine@j-schulz.de or claudiap.velez@upb.edu.co

In order to participate in the prize draw, click on "**Complete survey and go on to prize draw”**. You will be forwarded to the page of the prize draw. This ensures that your answers are recorded separately from the prize draw and no conclusions can be drawn.

Complete survey and go on to prize draw

Spanish version

Comportamiento Omnicanal de Compra

Bienvenido/a a mi encuesta!

Le agradezco por tomarse el tiempo para completar el cuestionario y apoyarme con mi trabajo de grado.

Mi nombre es Janine Schulz, soy estudiante de Negocios Internacionales de la Universidad Pontificia Bolivariana en Medellín y de la Universidad de Ciencias Aplicadas en Münster, Alemania. En este momento estoy trabajando en mi tesis sobre la omnicanalidad en el comportamiento de compra.

Le pido, por favor, conteste el siguiente cuestionario de manera exhaustiva y sincera. La elaboración se tarda aprox**. 10 minutos**.

Sus respuestas como usuario de medios digitales y canales no tradicionales de venta son de **gran importancia** para analizar los comportamientos de compra omnicanal.

Todos sus datos se tratarán de manera estrictamente confidencial y anónima dado que la encuesta no recoge datos personales y solo tiene fines académicos.

Como agradecimiento se sorteará entre todos los participantes un **cupón de iTunes por valor de $80.000.**

Muchas gracias por su valiosa colaboración.

Uso de Dispositivos Móviles en el Proceso de Compra

Las siguientes preguntas se refieren al uso de dispositivos móviles, tales como smartphones y tablets, en el proceso de compra.

¿De cuáles de las siguientes tecnologías dispone usted?

Por favor, marque las opciones que correspondan:

☐ Computador portátil

☐ Teléfono inteligente

☐ Computador de escritorio

☐ Tablet PC

[]

¿Para cuáles de las siguientes actividades relacionadas con el proceso de compra usa sus dispositivos móviles?

Sólo conteste esta pregunta si se cumplen las siguientes condiciones:
La respuesta fue 'Teléfono inteligente' *o* 'Tablet PC' en la pregunta '1 [A1]' (¿De cuáles de las siguientes tecnologías dispone usted?)

Por favor, marque las opciones que correspondan:

☐ comprar en línea

☐ pagar en línea

☐ comparar ofertas y productos

☐ comentar mis experiencias y preferencias de compra

☐ revisar ofertas y promociones

☐ explorar productos y novedades

☐ encontrar tiendas cercanas

☐ revisar detalles de productos

☐ comparar precios en línea

☐ revisar disponibilidad de productos

☐ leer reseñas/evaluaciones sobre experiencias de compra o productos

☐ reservar productos

☐ permitir ser localizado (GPS) y recibir información sobre ofertas locales

☐ pagar sin contacto en tiendas (Mobile Wallet)

☐ darle like o seguir a una marca en redes sociales

☐ visitar sitios web/tiendas online de vendedores

☐ consultar con amigos u otros consumidores en redes sociales

☐ No he usado mi dispositivo móvil para actividades relacionadas con el proceso de compra.

¿Al estar en una tienda, para cuáles actividades ha utilizado su dispositivo móvil?

Sólo conteste esta pregunta si se cumplen las siguientes condiciones:
La respuesta fue 'Tablet PC' *o* 'Teléfono inteligente' en la pregunta '1 [A1]' (¿De cuáles de las siguientes tecnologías dispone usted?)

Por favor, marque las opciones que correspondan:

☐ revisar detalles del producto

☐ comparar precios del producto

☐ comprar el producto en línea

☐ tomar fotos de la información sobre el producto

☐ escanear un cupón, código de barras o código QR para acceder a más información

☐ visitar sitios web de competidores

☐ buscar descuentos u ofertas

☐ revisar disponibilidad del producto en otras tiendas

☐ leer evaluaciones o reseñas sobre el producto

☐ reservar un producto

☐ No he usado mi dispositivo móvil para actividades relacionadas con la compra al estar en una tienda.

Uso de multiples canales a lo largo de la ruta de compra

A continuación se presentan preguntas relacionadas con el proceso de compra en canales tradicionales y canales online.

¿Al momento de usted comprar algo, cuántos canales distintos utiliza durante su proceso de compra?

Canal hace referencia al medio por el cual usted se entera, compara, compra o evalúa un producto. Por ejemplo un canal puede ser: internet, tienda física, catálogo, correo electrónico, redes sociales, entre otros.

Por favor seleccione **sólo una** de las siguientes opciones:

○ uno

○ dos

○ tres

○ cuatro

○ más de cuatro

De las siguientes categorías de productos, ¿para cuáles usa exclusivamente canales online u offline y para cuáles usa los dos canales para su compra?

Canal offline hace referencia a tiendas tradicionales, compras por catálogo o teléfono, entre otros.

Canal online hace referencia a compras a través del internet y/o a través de dispositivos móviles.

Por favor, seleccione la respuesta apropiada para cada concepto:

	canales online y offline	solo canales online	solo canales offline	No he comprado este tipo de producto.
Víveres, bebidas alcohólicas	○	○	○	○
Ropa, accesorios y calzado	○	○	○	○
Entradas de eventos (conciertos, cine, etc.)	○	○	○	○
Aparatos electrónicos, celular, tablet	○	○	○	○
Programas y equipos informáticos	○	○	○	○
Libros físicos, e-books, DVDs, CDs	○	○	○	○
Artículos deportivos	○	○	○	○
Cuidado personal, cosméticos	○	○	○	○
Automotores y accesorios	○	○	○	○
Suministros para bebés, juguetes, muñecas	○	○	○	○
Flores	○	○	○	○
Medicina	○	○	○	○
Muebles, decoración de interiores	○	○	○	○

	canales online y offline	solo canales online	solo canales offline	No he comprado este tipo de producto.
Boletos aéreos/de tren o bus, reservación de hoteles o tours	○	○	○	○
Comida preparada	○	○	○	○

¿Alguna vez ha mostrado las siguientes conductas de compra?

Por favor, seleccione la respuesta apropiada para cada concepto:

	Sí	No
Después de buscar más información sobre un producto en el internet, lo compré offline (p.ej. tienda física, catálogo).	○	○
Después de ver y probar un producto en una tienda física, lo compré en línea.	○	○
Primero, investigé un producto en el internet, lo probé en una tienda física, pero lo compré online finalmente.	○	○
Compré un producto a través de mis dispositivos móviles cuando no estaba en casa.	○	○
Pedí un producto online, y lo recogí en una tienda cercana.	○	○

¿A través de cuáles canales ha...

a) ... descubierto un producto?

Por favor, marque las opciones que correspondan:

☐ tienda física

☐ catálogo impreso

☐ televisión/radio

☐ periódico/revista impresa

☐ revista online

☐ video online

☐ buscadores (Google, etc.)

☐ páginas web de la marca

☐ recomendaciones de familia/amigos

☐ páginas en línea con reseñas y evaluaciones de productos (comentarios por otros compradores o expertos)

☐ redes sociales, blogs, forum

☐ tienda en línea

☐ mercado electrónico (p.ej. MercadoLibre, Amazon)

☐ correo electrónico

☐ aplicación móvil

☐ teléfono

b) … buscado más información sobre productos?

Por favor, marque las opciones que correspondan:

☐ tienda física

☐ catálogo impreso

☐ televisión/radio

☐ periódico/revista impreso

☐ revista online

☐ video online

☐ buscadores (Google, etc.)

☐ página web de la marca

☐ recomendaciones de familia/amigos

☐ páginas en línea con reseñas y evaluaciones de productos (comentarios por otros compradores o expertos)

☐ redes sociales, blogs, forum

☐ tienda en línea

☐ mercado electrónico (p.ej. MercadoLibre)

☐ correo electrónico

☐ aplicación móvil

☐ teléfono

c) … comprado productos?

Por favor, marque las opciones que correspondan:

☐ tienda física

☐ catálogo

☐ televisión

☐ teléfono

☐ tienda en línea

☐ mercado electrónico (p.ej. MercadoLibre, Amazon)

☐ redes sociales

☐ aplicación móvil

d) ... comentado o evaluado su experiencia de compra?

Por favor, marque las opciones que correspondan:

☐ tienda física

☐ teléfono

☐ correo postal

☐ página web de la marca

☐ correo electrónico

☐ redes sociales, blogs, forums

☐ página de evaluación/comparación de productos

☐ mercado electrónico (p.ej. MercadoLibre, Amazon)

☐ aplicación móvil

☐ conversar con amigos o familia

☐ No he evaluado o comentado mi experiencia de compra.

Cuando piensa en su última compra, ¿a través de cuál canal...

a) ... descubrió el producto?

Por favor seleccione **sólo una** de las siguientes opciones:

○ tienda física

○ catálogo impreso

○ televisión/radio

○ periódico/revista impresa

○ revista online

○ video online

○ buscadores (Google, etc.)

○ página web de la marca

○ recomendaciones de familia/amigos

○ página en línea con reseñas de productos (comentarios por otros compradores o expertos)

○ redes sociales, blogs, foros

○ tienda en línea

○ mercado electrónico (p.ej. MercadoLibre)

○ correo electrónico

○ aplicación móvil

○ teléfono

b) ... buscó más información sobre el producto?

Por favor, marque las opciones que correspondan:

☐ tienda física

☐ catálogo impreso

☐ televisión/radio

☐ periódico/revista impresa

☐ revista online

☐ video online

☐ buscadores (Google, etc.)

☐ página web de la marca

☐ recomendaciones de familia/amigos

☐ página en línea con reseñas de productos (comentarios por otros compradores o expertos)

☐ redes sociales, blogs, foros

☐ tienda en línea

☐ mercado electrónico (p.ej. MercadoLibre)

☐ correo electrónico

☐ aplicación móvil

☐ teléfono

☐ No he buscado más información.

c) … compró el producto?

Por favor seleccione **sólo una** de las siguientes opciones:

○ tienda física

○ catálogo

○ televisión

○ teléfono

○ tienda en línea

○ mercado electrónico (p.ej. MercadoLibre)

○ redes sociales

○ aplicación móvil

d) ... comentó o evaluó su experiencia de compra?

Por favor, marque las opciones que correspondan:

☐ tienda física

☐ teléfono

☐ correo postal

☐ página web de la marca

☐ correo electrónico

☐ redes sociales, blogs, foros

☐ página de evaluación/comparación de productos

☐ mercado electrónico (p.ej. MercadoLibre)

☐ aplicación móvil

☐ conversar con amigos o familia

☐ No he evaluado o comentado mi experiencia de compra.

Experiencia de Compra

La siguiente pregunta incluye varios elementos con respecto a una experiencia positiva de compra.

Para que tenga una experiencia positiva de compra, ¿qué importancia tienen para usted los siguientes elementos?

Por favor, seleccione la respuesta apropiada para cada concepto:

	muy alta	alta	media	muy baja	baja
Posibilidad de interactuar con la marca via multiples canales (p.ej. en persona, correo, redes sociales)	○	○	○	○	○
Acceder a la información de los productos de manera más completa en las tiendas a través de la tecnología (p.ej. catálogos digitales)	○	○	○	○	○
Consistencia de la información y precios de productos entre canales	○	○	○	○	○
Experiencia más personalizada con ofertas relevantes y recomendaciones basadas en mis intereses	○	○	○	○	○
Constante contacto con la empresa después de finalizar la compra	○	○	○	○	○
Que representantes de la compañía tengan mi información como cliente en todos los canales	○	○	○	○	○
Opción de recoger producto en tienda más cercana	○	○	○	○	○
Opción de devolución del dinero y de los productos de la compra online en una tienda física	○	○	○	○	○
Facilidades de pago sin contacto	○	○	○	○	○

Variables Sociodemográficas

La siguiente sección contiene preguntas sociodemográficas.

Por favor, indique su edad.

Por favor, escriba su respuesta aquí:

Por favor, indique su género.

Por favor seleccione **sólo una** de las siguientes opciones:

○ Femenino

○ Masculino

¿Qué tipo de ocupación tiene?

En el caso de tener varias ocupaciones, por favor seleccione la opción por medio de la cual devenga mensualmente la mayoría de sus ingresos.

Por favor seleccione **sólo una** de las siguientes opciones:

○ Ocupaciones en alta dirección (p.ej. gerente general, gerente comercial)

○ Ocupaciones en dirección media (p.ej. supervisor, coordinador de línea, ejecutivo de cuenta, director comercial y de marketing)

○ Ocupaciones técnicas y operativas (p.ej. trabajo de oficina, secretaria de gerencia, vendedor o agente comercial)

○ Trabajo por temporadas u ocasionales

○ Trabajo independiente

○ Miembro del gobierno, profesor, miembro de fuerzas militares o policiales

○ Sin ocupación actual/estudiante a tiempo completo

Gracias por compartir sus opiniones y experiencias con respecto a este tema, esto será de gran ayuda para mi proyecto de investigación.

Sus respuestas se conservarán de manera confidencial y anónima.

Si tiene alguna consulta o requiere mayor información con respecto a la encuesta, no dude en contactarnos: janine@j-schulz.de o claudiap.velez@upb.edu.co

Para participar en el sorteo, por favor haga click en **"Completar encuesta - continuar al sorteo".** De esta manera será redireccionado a la página web del sorteo, asegurando que sus respuestas serán registradas por separado de las del sorteo y garantizando la protección de su identidad.

Completar encuesta - continuar al sorteo

German version

Omnichannel-Einkaufsverhalten

Willkommen bei meiner Umfrage!

Ich danke Ihnen ganz herzlich für Ihre Zeit und die wertvolle Unterstützung bei meiner Bachelor-Thesis.

Mein Name ist Janine Schulz und ich studiere derzeit "International Business" an der Universidad Pontificia Bolivariana in Medellín, Kolumbien und an der Fachhochschule in Münster. Momentan arbeite ich an meiner Bachelorarbeit zum Thema *Omnichannel*-Käuferverhalten.

Daher möchte ich Sie bitten, sich kurz Zeit zu nehmen und die folgenden Fragen möglichst vollständig zu beantworten. Das Ausfüllen der Umfrage wird ca. **10 Minuten** in Anspruch nehmen.

Ihre Antworten als Nutzer digitaler Medien und nicht-traditioneller Kanäle sind von **enormer Bedeutung** für die Analyse des *Omnichannel*-Kaufverhaltens.

Ihre Angaben werden selbstverständlich vertraulich behandelt und Ihre Teilnahme bleibt anonym, da Sie im Rahmen der Umfrage nach keinen personenbezogenen Daten gefragt werden und diese Studie rein wissenschaftlichen Zwecken dient.

Als Dankeschön für Ihre Unterstützung wird unter allen Teilnehmern ein **iTunes-Gutschein im Wert von 25€** verlost.

Vielen Dank für Ihre Teilnahme!

Nutzung mobiler Endgeräte während des Kaufprozesses

Die folgenden Fragen beziehen sich auf die kaufbezogene Nutzung mobiler Endgeräte (Smartphone, Tablet).

Welche der folgenden Technologien besitzen Sie?

Bitte wählen Sie alle zutreffenden Antworten aus:

☐ Laptop

☐ Smartphone

☐ Desktop-Computer

☐ Tablet

Für welche der folgenden kaufbezogenen Aktivitäten nutzen Sie mobile Endgeräte (Smartphone/Tablet)?

Beantworten Sie diese Frage nur, wenn folgende Bedingungen erfüllt sind:
Antwort war 'Tablet' *oder* 'Smartphone' bei Frage '1 [A1]' (Welche der folgenden Technologien besitzen Sie?)

Bitte wählen Sie alle zutreffenden Antworten aus:

☐ online einkaufen

☐ online bezahlen

☐ Angebote und Produkte vergleichen

☐ meine Einkaufserlebnisse und -präferenzen bewerten

☐ nach Angeboten und Rabatten suchen

☐ Produkte und Neuheiten erforschen

☐ Geschäfte in der Nähe suchen

☐ Produktdetails überprüfen

☐ online Preise vergleichen

☐ die Verfügbarkeit von Produkten überprüfen

☐ Produktbewertungen lesen

☐ Produkte reservieren

☐ lokale Angebote über standortgebundene Dienste erhalten (GPS)

☐ im Geschäft kontaktlos bezahlen (Mobile Wallet)

☐ Marken in sozialen Netzwerken liken oder folgen (Facebook, Twitter, Instagram, etc.)

☐ den Online Shop oder die Website eines Verkäufers besuchen

☐ Rat von Freunden oder anderen Konsumenten über soziale Netzwerke einholen

☐ Ich habe mein mobiles Gerät bisher nicht für kaufbezogene Aktivitäten genutzt.

Während Sie sich in einem Geschäft befinden, für welche der folgenden Aktivitäten haben Sie schon einmal Ihr mobiles Endgerät (Smartphone/Tablet) genutzt?

Beantworten Sie diese Frage nur, wenn folgende Bedingungen erfüllt sind:
Antwort war 'Tablet' *oder* 'Smartphone' bei Frage '1 [A1]' (Welche der folgenden Technologien besitzen Sie?)

Bitte wählen Sie alle zutreffenden Antworten aus:

☐ Produktinformationen überprüfen

☐ Preise online vergleichen

☐ Produkt online kaufen

☐ Produktinformation abfotografieren

☐ Coupons, Strichcodes oder QR Codes einscannen um mehr über das Produkt zu erfahren

☐ Webseite/Online-Shop der Wettbewerber besuchen

☐ nach Angeboten und Rabatten suchen

☐ Verfügbarkeit von Produkten in anderen Geschäften/Filialen überprüfen

☐ Produktbewertungen anderer Konsumenten lesen

☐ Produkte reservieren

☐ Ich habe mein mobiles Gerät noch nicht für kaufbezogene Aktivitäten im Geschäft genutzt.

Nutzung mehrfacher Kanäle entlang des Kaufvorgangs

Die folgenden Fragen beziehen sich auf Ihren Einkaufspfad, d.h. die verschiedenen Etappen Ihres Einkaufsprozesses, in traditionellen sowie in Online-Kanälen.

Wenn Sie ein Produkt erwerben möchten, wie viele unterschiedliche Kanäle nutzen Sie üblicherweise während des gesamten Einkaufsprozesses?

Kanal bezeichnet jegliches Medium, welches Sie nutzen, um ein Produkt zu entdecken, sich darüber zu informieren, den Kauf zu tätigen und im Anschluss Ihre Erfahrung zu bewerten: z.B. Internet, stationäres Geschäft, Fernsehen, Radio, Katalog/Zeitung, E-Mail, Telefon, etc.

Bitte wählen Sie nur eine der folgenden Antworten aus:

○ einen

○ zwei

○ drei

○ vier

○ mehr als vier

Welche der folgenden Produktkategorien kaufen Sie ausschließlich über online oder offline Kanäle und welche über beide Kanäle?

Offline-Kanal beinhaltet z.B. stationären Handel, Kataloge, Telefon, etc.

Online-Kanal bezieht sich auf Einkäufe über das Internet und/oder über mobile Endgeräte.

Bitte wählen Sie die zutreffende Antwort für jeden Punkt aus:

	Offline- und Online-Kanäle	nur Online-Kanäle	nur Offline-Kanäle	Ich habe noch kein Produkt dieser Kategorie gekauft.
Lebensmittel, alkoholische Getränke	○	○	○	○
Kleidung, Schuhe und Accessoires	○	○	○	○
Tickets für Veranstaltungen (Konzerte, Kino, etc.)	○	○	○	○
Elektronische Geräte, Handy, Tablet, etc.	○	○	○	○
Computer Software und Hardware	○	○	○	○
Physische Bücher, E-Books, DVDs, CDs	○	○	○	○
Sportartikel	○	○	○	○
Kosmetik und Körperpflegeprodukte	○	○	○	○
Auto, Motorrad und Zubehör	○	○	○	○
Babyprodukte, Spielzeug und Puppen	○	○	○	○
Blumen	○	○	○	○
Medizinische Produkte	○	○	○	○
Möbel, Dekoration	○	○	○	○

	Offline- und Online-Kanäle	nur Online-Kanäle	nur Offline-Kanäle	Ich habe noch kein Produkt dieser Kategorie gekauft.
Flug-, Bus- und Bahntickets / Hotel- und Tourreservierungen	○	○	○	○
zubereitete Speisen	○	○	○	○

Haben Sie schon einmal folgendes Kaufverhalten gezeigt?

Bitte wählen Sie die zutreffende Antwort für jeden Punkt aus:

	Ja	Nein
Nachdem ich mich über ein Produkt im Internet informiert habe, habe ich es offline gekauft (z.B. in einem Geschäft oder per Katalog).	○	○
Nachdem ich mir ein Produkt in einem Geschäft angeschaut und getestet habe, habe ich es im Internet gekauft.	○	○
Zuerst habe ich mich online über ein Produkt informiert, es daraufhin in einem Geschäft getestet und es schließlich im Internet gekauft.	○	○
Ich habe ein Produkt mit meinem Smartphone/Tablet gekauft, während ich unterwegs war.	○	○
Ich habe ein Produkt online gekauft und in einem Geschäft in der Nähe abgeholt.	○	○

Über welche Kanäle haben Sie bereits...

a) ... Produkte entdeckt?

Bitte wählen Sie alle zutreffenden Antworten aus:

☐ stationärer Einzelhandel (im Geschäft)

☐ (Print-) Kataloge

☐ TV/Radio

☐ (Print-) Zeitungen/Magazine

☐ Online-Magazine

☐ Online-Videos

☐ Suchmaschinen (z.B. Google)

☐ Webseite der Marke

☐ Empfehlungen von Familie/Freunden

☐ online Produktbewertungen (Kommentare von anderen Konsumenten oder Experten)

☐ Soziale Netzwerke, Blogs und Foren

☐ Online-Shop

☐ Online Marktplatz (z.B. Amazon, eBay)

☐ E-mail

☐ Mobile App

☐ Telefon

b) … nach Informationen über Produkte gesucht?

Bitte wählen Sie alle zutreffenden Antworten aus:

☐ stationärer Einzelhandel (im Geschäft)

☐ (Print-) Kataloge

☐ TV/Radio

☐ (Print-) Zeitungen/Magazine

☐ Online-Magazine

☐ Online-Videos

☐ Suchmaschinen (z.B. Google)

☐ Webseite der Marke

☐ Empfehlungen von Familie/Freunden

☐ online Produktbewertungen (Kommentare von anderen Konsumenten oder Experten)

☐ Soziale Netzwerke, Blogs und Foren

☐ Online-Shop

☐ Online Marktplatz (z.B. Amazon, eBay)

☐ E-Mail

☐ Mobile App

☐ Telefon

c) … Produkte gekauft?

Bitte wählen Sie alle zutreffenden Antworten aus:

☐ stationärer Einzelhandel

☐ (Print-) Katalog

☐ TV

☐ Telefon

☐ Online-Shop

☐ Online Marktplatz (z.B. Amazon, eBay)

☐ Soziale Medien

☐ Mobile App

d) ... Ihre Kauferfahrung bewertet oder kommentiert?

Bitte wählen Sie alle zutreffenden Antworten aus:

☐ stationäres Geschäft

☐ Telefon

☐ Post

☐ Webseite der Marke

☐ E-Mail

☐ Soziale Netzwerke, Blogs, Foren

☐ online Produktbewertungs- oder Produktvergleichsseiten

☐ online Marktplatz (z.B. Amazon, eBay)

☐ Mobile App

☐ Freunde/Familie

☐ Ich habe meine Kauferfahrung bisher nicht bewertet oder kommentiert.

Wenn Sie an Ihren zuletzt getätigten Kauf denken, über welchen Kanal haben Sie...

a) ... das Produkt entdeckt?

Bitte wählen Sie nur eine der folgenden Antworten aus:

○ stationärer Einzelhandel (im Geschäft)

○ (Print-) Kataloge

○ TV/Radio

○ (Print-) Zeitungen/Magazine

○ Online-Magazine

○ Online-Videos

○ Suchmaschinen (z.B. Google)

○ Webseite der Marke

○ Empfehlungen von Familie/Freunden

○ online Produktbewertungen (Kommentare von anderen Konsumenten oder Experten)

○ Soziale Netzwerke, Blogs und Foren

○ Online-Shop

○ Online Marktplatz (z.B. Amazon, eBay)

○ E-mail

○ Mobile App

○ Telefon

b) … sich über das Produkt informiert?

Bitte wählen Sie alle zutreffenden Antworten aus:

☐ stationärer Einzelhandel (im Geschäft)

☐ (Print-) Kataloge

☐ TV/Radio

☐ (Print-) Zeitungen/Magazine

☐ Online-Magazine

☐ Online-Videos

☐ Suchmaschinen (z.B. Google)

☐ Webseite der Marke

☐ Empfehlungen von Familie/Freunden

☐ online Produktbewertungen (Kommentare von anderen Konsumenten oder Experten)

☐ Soziale Netzwerke, Blogs und Foren

☐ Online-Shop

☐ Online Marktplatz (z.B. Amazon, eBay)

☐ E-mail

☐ Mobile App

☐ Telefon

☐ Ich habe mich nicht näher über das Produkt informiert.

c) ... das Produkt gekauft?

Bitte wählen Sie nur eine der folgenden Antworten aus:

○ stationärer Einzelhandel

○ (Print-) Katalog

○ TV

○ Telefon

○ Online-Shop

○ Online Marktplatz (z.B. Amazon, eBay)

○ Soziale Medien

○ Mobile App

d) ... Ihr Kauferlebnis bewertet oder kommentiert?

Bitte wählen Sie alle zutreffenden Antworten aus:

☐ stationäres Geschäft

☐ Telefon

☐ Post

☐ Webseite der Marke

☐ E-Mail

☐ Soziale Netzwerke, Blogs, Foren

☐ online Produktbewertungs- oder Produktvergleichsseiten

☐ online Marktplatz (z.B. Amazon, eBay)

☐ Mobile App

☐ Freunde/Familie

☐ Ich habe meine Kauferfahrung bisher nicht bewertet oder kommentiert.

Kauferlebnis

Die folgende Frage beinhaltet unterschiedliche Komponenten, die ein positives Kauferlebnis bieten können.

Wie wichtig sind für Sie für ein positives Kauferlebnis die folgenden Elemente?

Bitte wählen Sie die zutreffende Antwort für jeden Punkt aus:

	sehr hoch	hoch	mittel	niedrig	sehr niedrig
Möglichkeit mit dem Unternehmen über mehrere Kanäle zu interagieren (z.B. persönlich, E-Mail, Social Media)	○	○	○	○	○
Zugriff auf tiefergehende Produktinformationen mithilfe von neuen Technologien innerhalb von Geschäften (z.B. digitale Kataloge)	○	○	○	○	○
einheitliche Produktinformationen und Preise in allen Kanälen	○	○	○	○	○
Eine personalisiertere Kauferfahrung mit auf meinen Interessen basierenden Angeboten und Empfehlungen	○	○	○	○	○
Anhaltender Dialog mit dem Unternehmen nach Kaufabschluss	○	○	○	○	○
Unternehmensvertreter verfügen über meine Kundeninformationen über alle Kanäle hinweg	○	○	○	○	○
Möglichkeit, die Lieferung im nächstgelegenen Geschäft abzuholen	○	○	○	○	○
Möglichkeit, den Online-Einkauf im Geschäft zurückzugeben und dort das Geld zurückzuerhalten	○	○	○	○	○
kontaktloses Zahlen im Geschäft (z.B. mit NFC-Technologie)	○	○	○	○	○

Soziodemographische Variabeln

Der folgende Abschnitt enthält Fragen bezüglich sozialdemographischer Faktoren.

Bitte geben Sie Ihr Alter an.

Bitte geben Sie Ihre Antwort hier ein:

Bitte geben Sie Ihr Geschlecht an.

Bitte wählen Sie nur eine der folgenden Antworten aus:

- ○ weiblich
- ○ männlich

Welcher Art von Beschäftigung gehen Sie nach?

Falls Sie mehrere Tätigkeiten ausüben, wählen Sie bitte diejenige aus, die Ihr höchstes monatliches Einkommen generiert.

Bitte wählen Sie nur eine der folgenden Antworten aus:

- ○ Top-Management (Führungsebene)
- ○ Middle-Management (Direktor, etc.)
- ○ Lower Management (Tätigkeit im operativen Bereich)
- ○ Zeit- oder Gelegenheitsarbeit
- ○ Selbständig
- ○ Beamter
- ○ zurzeit ohne Beschäftigung/Vollzeitstudent

Vielen Dank für Ihre Teilnahme an der Umfrage und Ihre Unterstützung bei meiner Bachelor-Thesis!

Ihre Antworten werden selbstverständlich vertraulich und anonym behandelt.

Falls Sie noch Fragen zum Thema oder dieser Umfrage haben, können Sie uns gerne eine E-Mail senden: janine@j-schulz.de oder claudiap.velez@upb.edu.co

Wenn Sie an der Verlosung des iTunes-Gutscheins teilnehmen möchten, klicken Sie bitte unten auf "**Umfrage beenden und weiter zum Gewinnspiel**". Sie werden dann zu der Seite mit der Verlosung weitergeleitet. Dadurch ist gesichert, dass Ihre Angaben separat zum Gewinnspiel erfasst werden und keine Rückschlüsse möglich sind.

Umfrage beenden und weiter zum Gewinnspiel