



universität
wien

MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„Mobile Shopping Behavior: A Study on Mobile Shoppers' Activities after receiving an Online Promotion“

verfasst von / submitted by

Nicholas Ströbitzer BSc (WU)

angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of

Master of Science (MSc)

Wien, 2018 / Vienna 2018

Studienkennzahl lt. Studienblatt /
degree programme code as it appears on
the student record sheet:

A 066 915

Studienrichtung lt. Studienblatt /
degree programme as it appears on
the student record sheet:

Masterstudium Betriebswirtschaft

Betreut von / Supervisor:

ao. Univ.-Prof. Dr. Heribert Reisinger

Abstract English:

Within just a couple of years mobile shopping has gained enormous momentum in today's retail world and the major aim of this master thesis is to gain insights into the pre-purchase behavior of mobile shoppers. Sourcing 660 data samples by attaching a short survey to the online order confirmation of a sporting goods retailer provides actual mobile shopping behavior data and serves as a good base for several quantitative approaches. On the one hand some descriptive analysis show that the respondents' most performed mobile activities are reading product texts, checking delivery terms, comparing prices and checking the return policy. Further, a set of 45 cross tables as well as several logistic regressions point towards some significant differences in mobile shopping behavior with respect to gender, age, used device, traffic source as well as if the customer is new or returning. Finally a clustering method is used to segment customers into 5 different mobile shopping types.

Abstract Deutsch:

Online-Shopping mit Smartphones oder Tablets ist längst nicht mehr nur ein Randphänomen, sondern bereits bei vielen Bevölkerungsschichten und Altersgruppen weit verbreitet. Wo in vergangenen Jahren zumeist PCs oder Laptops verwendet wurden, kommen heute vermehrt portable Geräte beim Einkaufen zum Einsatz. Das Ziel dieser Masterarbeit ist die nähere Erforschung des Konsumentenverhaltens von sogenannten "Mobile Shoppers". Zu diesem Zweck wurde ein kurzer Fragebogen in die Bestellbestätigung eines Sport-Retailers angefügt und mit den 660 damit erhaltenen Probanden wurden einige quantitative Analysen durchgeführt. Zum einen zeigt sich, dass verhältnismäßig sehr viele Konsumenten Produkttexte lesen, die Lieferbedingungen prüfen, Preise vergleichen und einen Blick auf die Retourenpolitik werfen. Zum anderen deuten eine Vielzahl an Kreuztabellen als auch einige logistische Regressionen auf signifikante Verhaltensunterschiede innerhalb der Variablen Geschlecht, Alter, Gerät, Traffic Source und Alt- vs. Neukunde hin. Zu guter Letzt erfolgte mittels Clusteranalyse eine Segmentierung der Online Shopper in 5 verschiedene Gruppen.

Table of Content

1. Introduction	3
a. The importance of M-Commerce	3
b. Goal of this thesis	5
c. Structure of this thesis	7
2. Literature Review	8
a. Technology Acceptance	9
b. Motivations for Mobile Shopping	15
c. Costume Attitudes towards Mobile Marketing	19
d. Mobile Shopping Behavior	23
3. Methodology	28
a. Excuse – XXL Sports and Outdoor	28
b. Conceptual Framework and Research Questions	30
c. Analytical Methods	39
d. Data Collection and Questionnaire	39
4. Results	41
a. Data Summary	42
b. The Activity-Level of 9 Behavior Variables	43
c. Differences in Behavior dependent on 5 Costumer Attribute Variables	47
d. The explanatory Power of 5 Attribute Variables on Behavior Variables	56
e. Clustering the Respondents according to their Behavior	59
5. Conclusion	65

Attachements:

- I. Literature
- II. Questionnaire

1. Introduction

a. The importance of M-Commerce

Smartphones have changed our lives. Once considered a simple mean of connecting people via call or short message today's smartphones have much more in common with a high tech computer than with the old telephone. Equipped with strong and fast processors, big storage space, high end cameras and very sensitive touchscreens it is possible to perform almost every task, formerly performed by a laptop or desktop PC. Consequently smartphones are much more than just yet another technological gadget, rather they can be seen as part of our lifestyle and as "cultural objects" if not even humans newest best friend. (Bell, 2006; Shankar et al., 2010; Wang et al., 2015) A quick look at some mobile phone penetration numbers shows that this phenomenon not only applies to western states, but diffusion happens around the globe, no matter how remote the place, or how poor the population. Astonishingly enough it is not Western countries having the highest penetration rate, it is the Middle East as well as Asia where mobile phones turn out having the biggest impact on humans' daily lives. In 2017, 2.6 billion people used a smartphone, with the highest mobile phone penetration rates occurring in countries such as the United Arab Emirates, Bahrain and Kuwait. In these regions of the world 75% of the population use a mobile phone. From a global perspective, there were around 2.6 billion smartphone users in 2017, leading to a worldwide penetration rate of around 35%. A figure which is about to significantly grow until 2020, as expected mobile phone penetration should be 3.6 billion by then. (Newzoo, 2017) This means that roughly every third person has a portable access to the world wide web, with all its features and webpages.

Subsequently it comes as no surprise that the importance of smartphones has also dramatically increased in shopping related topics very recently. According to Statcounter (2017), a platform summarizing online traffic numbers, almost 52% of worldwide online traffic came from mobile devices in February 2018. Comparing this share with the 38% share of February 2016 shows a galloping 14% points growth rate in just 2 years. This means more and more users regard the mobile phone as major way of entering the web and surfing on webpages. Particularly Asian countries are very mobile

orientated as mobile traffic share in China is around 63%. And despite the fact that Europe still lags behind a bit with regards to that, it is only a matter of time until mobile overtakes computer traffic here as well. As more mobile traffic equals more mobile sales, it is reasonable to assume that orders made by smartphone are trending upwards. Taking a look at some revenue data expresses the stunning growth mobile shopping currently experiences.

In 2017 total retail sales reached 22640 trillion USD, which meant a 5.8% growth rate compared to 2016. Besides an improving export business, higher employment and a very stable economic situation a big contributor to retail growth was ecommerce sales, referring to transactions between buyer and seller via the web. Ecommerce Sales in 2017 were 2304 trillion USD, accounting for approximately 10% of the total value sold by retailers. From 2016 to 2017 ecommerce revenue experienced a very high growth rate of around 24.8% and the main driver for double digit growth rates in the last years was the rising phenomenon of M-commerce. M-commerce in this context means online purchases done with a smartphone or tablet, which altogether made up for around 1357 trillion dollars in sales in 2017. While ecommerce growth rates of 24.8% were pretty impressive already, M-commerce growth rates of 40.3% are even higher, stressing the enormous potential mobile shopping has. (eMarketer, 2018) Today M-commerce's share on total retail revenues is still only 6% but with a jumping growth, projected to continue for the next years to come, it is undoubted how big of a success factor M-commerce can be. Predicting a prosperous future for M-commerce are several reports conducted very recently, one of them is the "Global Perspective of Mobile Commerce" report from IAB Global Network (2016). The report conducted in 22 different markets finds that around 75% of respondents have already purchased products by using their mobile phones in the past 6 months. When asked about the monthly purchases done across all different shopping channels, it turns out that about 1/3 of the total number of purchases is done with the smartphone. A number which is decisively higher than the one for desktop computers (14%) and only around 10% lower than in store purchases. Eventually the report concludes, that the market is still very much poised to grow, due to two major reasons. On the one hand 43% of mobile shoppers only adopted shopping on the internet in the last year, meaning they are in the wake of establishing the habit

of shopping online. On the other hand 62% of all mobile shoppers stressed their intention to increase shopping activities with the mobile phone in the future.

Summing up all the numbers and arguments from above very shortly: Several indicators such as mobile phone penetration, mobile traffic and most importantly M-commerce revenue numbers are clearly trending upwards making it very clear how important it is to explore this topic in more depth.

b. Goal of this thesis

As expressed in the numbers outlined above, mobile shopping has gained enormous momentum in the last one or two years. From virtually not existing just a few years ago, a completely new way of shopping emerged, potentially turning retail landscape upside down. To succeed in today's world it is an absolute no-brainer to do retail business without a mobile optimized web store or to even totally skip a web shop. Instead it is the question on whether to set up a pure player webpage or going Omni-channel. Pure Player in this context means to sell goods only via the web and totally leaving out offline stores. Big companies such as Alibaba, Amazon or Zalando follow this strategy creating big business empires that way. Amazons revenue in 2017 was as big as 177 billion USD and Chinese Ecommerce giant Alibaba even outdueled Amazon with approximately 250 billion USD of revenue in the same period of time. (Statista 1; 2018) Other big companies implement an Omni-Channel strategy, referring to a business model leaning towards a combination of offline stores and a web shop. No matter which strategy companies commit to, mobile shopping and its needed technology should be considered. But as much as mobile shopping has grown in unbelievable manner, it is almost impossible for literature to keep up the pace with the developments in reality. Several papers point towards a big gap, arguing that scientific work in this area is still very much in its infancy. (Groß, 2015; Holmes et al., 2013, Spaid et al., 2014, Fuentes et al., 2017)

The motivation of this master thesis is to contribute to a better understanding of mobile shopping in general and more specifically explore how costumers behave with their mobile phone. With the support of tools such as Google Analytics, Rich Relevance or others it is very easy to find a lot of different traffic data, which is a big support for ecommerce businesses. Things like demographics, interests or location of page visitors

can be identified with relative ease and it is also very easy to check conversion rate (CR) data, average order values (AOV) or the number of sessions. So as a matter of fact there are already quite a few powerful instruments for ecommerce companies. However what remains hidden in the dark is what happens behind these numbers. Of course Google Analytics shows us from which source how many customers are entering a web page, how often and how long an offered product gets viewed and finally what the conversion rate of a product is. But what remains unanswered are questions such as: Are the costumers comparing prices? Do they actually read the product text for getting a better understanding of the product? Are they searching for costumer product reviews, maybe even on other websites? Do they send screenshots to friends via Whatsapp, Snapchat or Facebook in order to receive some social feedback? And are they informing themselves about delivery terms as well as return policy? For that reason we establish the first Research Question:

RQ1: What are mobile shopper's typical pre-purchase behavioral patterns while shopping online.

So first and foremost the goal is to get a deeper insight into mobile shopper's post-offer and pre-purchase behavior or put differently to explore Kotler's "Information Search" and "Product Evaluation" Stages in more depth.

This is very much aligned with several paper's future research suggestions as for example Holmes et al. (2013; p: 10) "*More specifically, it would be valuable to explore further the use of mobiles, at different stages in the consumer decision making process...*" or Groß (2015; p: 234) "*It is most likely that specific shopping activities such as price comparison or writing reviews can be considered to be indispensable antecedents before costumers even consider using their mobile devices for online purchases*".

After RQ1 has been answered the next interesting step is to explore whether there are differences in mobile shopping behavior between certain user groups. For that reason several variables get introduced, mostly concerning costumer related variables, such as age, gender or new vs. returning costumers. At the end of the master thesis statements such as: "Older users are less likely to check prices" or "Users getting attracted by the

Newsletter are less likely to check return policy than users, who get attracted by a display advertisement” should be made possible. This is exactly what Fuentes et al. (2017, p: 145) states as further research topic “Or, how does the performance of mobile shopping vary between user groups” providing a proper foundation for Research Question number 2.

RQ2: Are there differences in mobile shopper’s behavioral patterns between gender, age groups, traffic sources, New vs Returning Customers and used device.

It only seems natural after posing RQ1 and RQ2 to test if it is possible to cluster certain respondents. This would not only be from great theoretical interest but much more it would have several practical implications. Just imagine if there are some segments which for example never check prices and others which are very price sensitive and therefore check prices at almost every purchase. From a marketing perspective this would totally change the way of approaching certain customer groups and for this reason research question number 3 is:

RQ3: Is it possible to generate a typology of shoppers by clustering the respondents?

c. Structure of the thesis

This thesis will be structured very much according to the Research Questions stated above. In the next section, Chapter 2, a literature review will be made in order to get a better understanding of the whole topic as well as to define the exact research scope. Starting very generally with the very first traces of research done in this scientific area, the thesis will after that, focus on the papers most closely related to the written work. The methodology will be covered in chapter 3 and since this thesis is written with real data of a company, a short description of the business should serve as foundation for a good understanding of the data.

In Chapter 4 the results will be presented and based on that chapter 5 will deliver a short conclusion, also suggesting some future research topics.

2. Literature Review

As outlined in chapter 1, there is a considerable amount of arguments that mobile shopping is one of the biggest trends not only in retail, but also in online marketing and therefore it is vital to understand the subject in a sophisticated way. *“Mobile phones, particularly smartphones, are changing the way consumers shop as new opportunities to gather information from multiple sources, check availability, compare prices and localize products and stores become possible using mobile phones and a new supportive ICT infrastructure”*. (Fuentes et al., 2017: 137). And despite arousing great interest in both academia as well as industry the literature on the topic is still scarce and very fragmented, as scholars only covered specific aspects at most. (Lu et al., 2009; Holmes et al., 2014; Groß, 2015). Before diving into the literature in more detail it makes sense to give a little overview of what the words M-Commerce or mobile shopping actually means.

Mobile commerce also known as M-Commerce, mcommerce or mobile shopping is defined as the sales of products and services via mobile devices. Mobile devices in their turn are technical devices, which show certain characteristics, making them unique in various ways. Shankar et al (2009) for example single out (1) location specificity, (2) portability and an (3) untethered/wireless feature. Location-specificity refers to the mobile devices GPS capabilities, giving the users the ability to identify their physical location on the one side, and on the other, providing marketers and retailers the opportunity of personalized geo-targeting. The second characteristic, portability is very much self-explanatory and in very basic words means, that the device can be carried around and thus can potentially be a steady companion. For this matter, size and weight play a crucial role. A certain degree of untethered/wireless feature rounds up Shankar et al's definition of mobile devices.

Taking a slightly different, but even more detailed approach are Lariviere et al (2013). From their angle mobile devices combine 5 different aspects: (1) Portable, (2) Personal, (3) Networked, (4) Textual/Visual (5) Converged. Portability doesn't need to be discussed in more detail, however the other 4 aspects are worth an explanation. Mobile devices are highly personalized gadgets with an enormous storage capacity enabling its owner to save several gigabytes of personalized music, pictures, videos and apps. The

ability to function wirelessly and also without a Wi-Fi connection giving the user access to the internet basically everywhere is another very important aspect. *“Being networked inherently implies anytime, anywhere, but also just-in-time (when there is a need to produce or consume) and in real-time (without any delays).”*(Lariviere et al., 2013:270) Textual/Visual refers to the ability of sending and receiving content in photographic and video form. Especially in today’s world of apps such as Instagram, Snapchat, Skype, Facebook or Tinder this features combined with cameras well above 10 MP is probably one of the most popular way of using smartphones. Lastly “Converged” points toward devices’ high powered processors, giving the user the chance to work with several different apps and programs at the same time.

Summing up the two aforementioned papers, mobile device’s most notable features are their portability, their connectivity and eventually their wide field of potential use, also allowing personalization in many ways. (Wang et al., 2015) It is pretty obvious that portable laptops harm certain assumptions of mobile devices as they are too big and do not have a GPS function for example. At the end of the day it is only mobile phones and tablets, which are counted to the mobile devices in our context.

After setting up a certain definition of M-commerce the literature review in the next section will give a proper overview of what has been discovered so far. Generally speaking, there are three different streams of literature, where “technology acceptance” is the first and “motivations for mobile shopping” as well as the “attitude towards mobile marketing” are the other two.

a. Technology Acceptance

The by far biggest number of papers can be counted to the area of Technology Acceptance. This field of study mainly tries to generate a better understanding on why some innovations are used or not used. The roots can be found in a paper written by Davis in 1989, establishing the so called Technology Acceptance Model, which until today serves as a good starting point for exploring the user’s acceptance of newly developed innovations. Despite the fact that Davis did not at all have mobile phones in mind when writing the paper with the title “Perceived Usefulness, perceived ease of use, and user acceptance of information technology”, it is still essential to understand his

results as so many others have built their theoretical models upon it. In fact it is not so much Davis' results which are that important, much more it is his constructs of perceived ease and perceived usefulness, which are the major aspect of attention.

Davis assumes that new technologies are responsible for efficiency gains, especially for the economical factor labor. Essential precondition for a new technology to thrive is the user's willingness to implement it in their daily lives. And that is exactly the research question Davis poses: Which factors predict and explain the use of a new technology. After a literature review, two factors stood out and Davis termed those as perceived usefulness and perceived ease of use.

Perceived usefulness is the degree of efficiency gains perceived by the tested person, and in the course of his paper Davis finds out, that particularly items such as "Work more quickly", "Job performance", "Increase Productivity", "Effectiveness", "Makes Job easier" and "useful" are expressions of this construct.

Perceived ease of use on the other hand is the degree of simplicity. The less effort is believed to be necessary for learning a new technology, the higher is the perceived ease of it. "Easy to learn", "Controllable", "Clear and understandable", "Flexible", "Easy to become skillful" and "Easy to use" are the items expressing perceived ease of use.

Serving as the two independent variables Davis then tested, what can be regarded a simple cost/benefit model. Are the two newly established variables, which can be classified as costs, influencing actual use or not? In other words, the model predicts that individuals will use a new technology if the perceived costs are outdueled by the perceived benefits. Particularly perceived usefulness turned out to be an exceptionally big predictor of use, but also perceived ease proved to impact the use in a significant manner. Of course it is very likely that the understanding of perceived use or perceived ease has changed over the years, however the basic causality is most probable still valid today. (Davis, 1989)

Applying the results into real life situation makes it pretty obvious, that the two variables are indeed very important factors for deciding if an innovative technology is worth using or not. Take for example a mobile phone. The faster the network speed and the more useful apps exist, are equally use enhancing arguments as an easier and more intuitive operating system.

For almost 30 years has Davis' Technology acceptance model now served as the starting point for a lot of scientific papers. Most of the times some variables have been added, or some relationships redefined and in some cases TAM was even complemented with some other models and theories.

Influences from the behavioral and psychological area of research found its expression as TAM got mingled with theories such as the Expectation Confirmation Theory, the Theory of Planned Behavior or the Social Cognitive Theory. (Bhattacharjee, 2001; McFarland et al., 2004; Hung et al., 2012; Yang, 2012) Models and theories widely used for predicting costumers purchasing or repurchasing behavior, due to their powerful explanative value. Besides that also some models and theories from technological fields have been incorporated, as for example Kumar et al. (2012) extend TAM with the Technology Readiness Model. In almost all of the papers a unanimous importance of the two variables perceived use and perceived ease has been stressed and supported.

After exploring the undoubted role Davis' model plays, the next few pages are meant to describe the most important variables added and considered important for the acceptance of mobile shopping

Probably the biggest agreement concerns the variable *perceived enjoyment*, also often named *satisfaction* or *prior experience*. Beside its technological functions and features, enjoyment plays a big role when thinking about mobile phones. Always in our pocket, they give us the ability to shop, play games, listen to music, look at pictures or watch movies anywhere and anytime we want. Most of those activities can be associated with pleasure and joy. For that reason it is all but unexpected that enjoyment was used by various papers to explain the technology acceptance of mobile phones. Lu et al. (2009) and also Ko et al. (2009) found that enjoyment positively relates costumers intention to use mobile shopping services. Groß(2015a) also integrated perceived enjoyment into TAM and tested whether or not it had an impact on a user's attitude towards mobile shopping. He equally found perceived enjoyment a significant predictor as did Kumar et al. (2015). Agrebi et al. (2015) tested if perceived enjoyment has an indirect impact on the intention to use mobile phones via perceived usefulness and in fact there is a significant indirect effect. This means, that the higher the enjoyment, when using a mobile phone, the higher the person values the efficiency gains from using it. And that in turn increases the intention to use mobile phones. Related in a way is the variable

satisfaction, frequently covered in literature, too. But unlike enjoyment, a variable describing the joy a person feels when using the phone, satisfaction does more express a feeling after the use. Users, who are satisfied with a purchase are found to have an increased repurchase intention and it is only intuitive that this in turn makes intention to use rise. (Wang et al., 2008; Agrebi et al., 2015)

Variables describing barriers for using mobile phones also do have an important predictive power. In literature those factors are often termed *anxiety*, *perceived risk* or *trust*. The feeling of anxiety prevents persons from shopping on their mobile phones simply because humans tend to avoid situations they do not feel comfortable in. Often this anxiety is caused by a lack of information or by a lack of knowledge, but no matter what the actual reasons are, the negative effect of anxiety on mobile shopping intention seems very natural and intuitive. (McFarland et al., 2004; Lu et al., 2009) Cybercrime in different manifestations are some of the biggest security concerns in today's world and with increasing digitalization this will all but stop in future years. With that being said, anxiety and suspicion will be a constant barrier for the use of services such as mobile payment or mobile shopping, at least to a certain degree.

The same holds to be true for perceived risk. Where anxiety is more referring to a general sentiment of human beings, perceived risk is a little bit more specific and rather focuses on product or online shop related issues. Ranging from things such as fraud or uncertainty about product quality and performance to payment, delivery or time risks, perceived risks can include a lot of different elements. (Wu et al., 2004) Eventually this group of variables gets rounded up by the variable trust, which means virtually almost the same as perceived risk. Various scholars use this variable and there is a big agreement of the undeniably impact. Trust can not only reduce uncertainties and perceived risks but also makes the users enjoy the facets of the internet more, eventually also enhancing mobile shopping activities. Besides influencing purchase intention directly, trust also positively correlates with satisfaction as well as enjoyment. (Lai, 2012 et al.; Hung et al., 2012; Groß, 2015a)

Skill and perceived ability of using mobile phones in a proper way is another area which significantly impacts the intention to use mobile phones as shopping device. Literature speaks about *self-efficacy* and *mobile skillfulness* when in fact basically meaning confidence in one's mobile phone skills. Self-efficacy on the one hand means one's

ability to achieve a certain goal by executing a specific behavior. Basically it is nothing else than a simple input-output relation, where input is a certain behavior and output is the intended result. (Hernandez et al., 2011) The higher the confidence of a person, that he or she can get to a goal by a behavior, the higher the self-efficacy. Yang (2012) proves that self-efficacy moderates the relationship between perceived enjoyment and attitude towards mobile shopping. Perceived enjoyments positive impact on intention to mobile shop is enhanced by a higher degree of self-efficacy.

Mobile skillfulness on the other hand is very much similar to self-efficacy and also refers to an individual's assessment of its ability to use a mobile phone in a productive way. Lu et al. (2009) found that mobile skillfulness has a significant influence on enjoyment, anxiety and perceived usefulness, resulting in three indirect effects on intention to mobile shop.

Eventually the last variable, which is discussed quite often in literature is the so called *subjective norm*. As the two terms already indicate, subjective norm has much to do with what is considered appropriate in a society. As one of the first Bhattacharjee (2000) has demonstrated that social acceptance plays an important role on whether adopting or not adopting e-commerce. Others also provided evidence for the variables' importance with regards to mobile shopping. (Nysveen et al., 2005; Yang, 2012) Beside the direct effects, Kim et al.(2009) also found subjective norm to be a significant driver for perceived usefulness and perceived enjoyment.

Beside those most relevant independent variables of mobile shopping acceptance, which have been discussed just now, there are some other variables with less impact. To summarize this chapter it is again important to understand Davis' model, where perceived usefulness and perceived ease of use are the two main elements for technology acceptance. Building upon this very basic, and in much cases insufficient model, many scholars have extended the theory by the addition of several key determinants.

Firstly and probably most importantly *enjoyment, satisfaction and prior experiences* play major roles. The more joy persons feel the more likely is the intention to use the mobile phone as shopping device. Effects either show to be direct, but can also appear in indirect manner by affecting other variables as for example perceived usefulness. Variables preventing mobile users from shopping are some very natural causes such as

missing trust, perceived risk or anxiety. All of those variables play a dominant role when it comes towards mobile shopping, but can be applied on other technological innovations as well. Where there is new, unknown technology there will always be a certain degree of risk or mistrust and particularly when it touches upon the internet with all its potential sources of cybercrime. Again direct effects on mobile shopping intention have been equally found as indirect ones.

Eventually *social acceptance* can significantly increase or decrease the willingness to use mobile phones in the shopping process. The more widely and the more commonly the use is, the more accepted it will be. Once mobile shopping gets the norm more and more customers will lose their shyness and use mobile devices for shopping purposes. Other variables such as mobile skillfulness, innovativeness, prior experience or system quality have also been touched upon, however to a lesser extent. .(McFarland, 2004; Wu, 2004; Lu, 2009) Figure 1 is serving a very basic visualization for the discussed, though it should be noted that the list of other variables is not closed as only the most common ones are mentioned. Further there are also some effects between the added variables according to several papers quoted before.

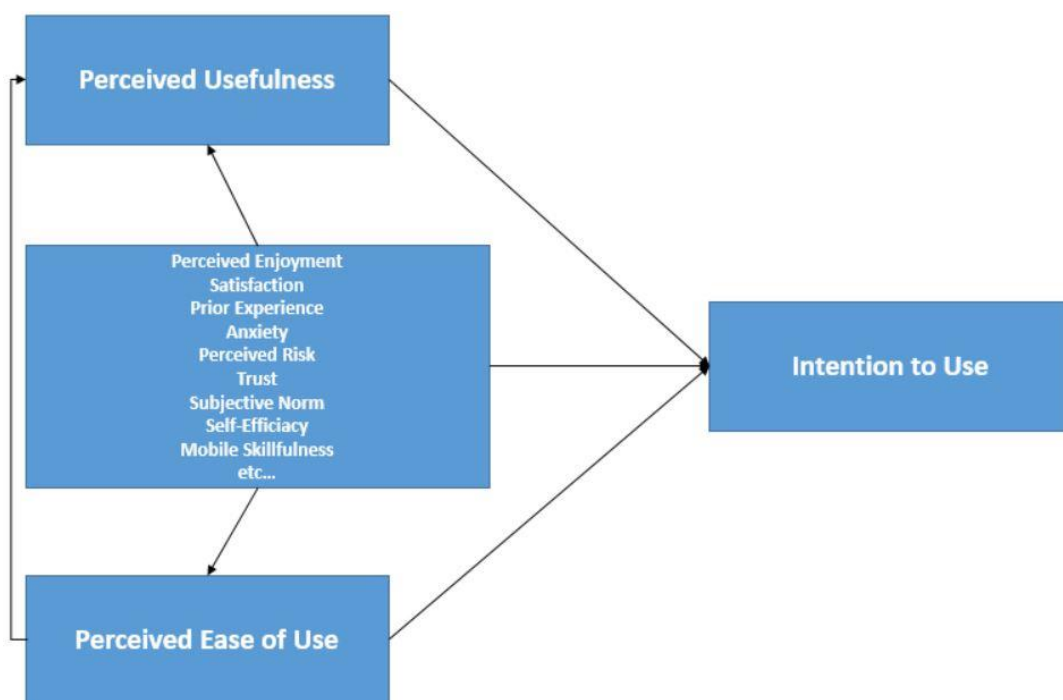


Figure 1: Basic TAM. Source: Own, based on Davis(1989)

Despite technology acceptance not being the main topic of this thesis it is still pivotal to get a certain understanding of the above mentioned relationships. Likewise, the different variables, which have been discussed in the context of TAM serve as a good base for the next parts of the work, as in several cases there will be references to them. Of course, literature has more insights to offer than the ones given, still the goal was to keep the whole review of papers short and provide just a good overview of the most important results.

b. Motivations for Mobile Shopping

The next stream of scientific work deals with the key drivers of mobile shopping. More and more people switch from laptop to smartphone for online shopping causes and galloping growth rates are the manifestation of that. The former section of this chapter concerned the acceptance of a new technology, more specifically the acceptance of smartphones, what is a major precondition for an innovation to flourish. But it doesn't necessarily explain why people are using mobile devices in such an extensive manner. Literature in this field of study is again very much at the beginning, and the heavyweight of papers have unsurprisingly been published later than 2010. The areas of mobile shopping which are covered in a satisfying extent are very little and there are some contradictory results, making it very tough to outline a unanimous direction of impact. (Groß, 2015)

Taking a very rational approach are Atkins et al. (2012), who tried to explore mobile shopping motivation from a mainly utilitarian standpoint, which very roughly means that shopping is seen as work and is mainly guided by functional features. (Kim, 2006; Yang et al., 2012) They do so in combining the two paradigms of economic theory and consumer efficiency theory. (Ingene, 1984) The former one, economic theory, mainly deals with the costumers choice making under the assumptions of finite income, infinite wants and a price to pay for each good or service. Consumer efficiency theory on the other hand states that we make our choices in a way which minimizes costs and maximizes our output, very well expressed by the "homo oeconomicus" term. Put differently, it basically comes down to an input/output relation which we want to

maximize. Mobile phones now help us to be more efficient, as they have important implications for the shopping process, not only from an input perspective, but also from an output point of view. (Voropanova, 2015) For that reasons Atkins et al. (2012) come up with four big drivers for the use of mobile phones. Driver number one is *time savings*, which in fact simply means that the mobile phone allows us to speed up our shopping activities, leaving us more time for other activities. Driver number two is *effort saving*, a very obvious point, as smartphones drastically ease our shopping activities. Compare it for example to shopping with a computer some 5 years ago. It meant a certain degree of inflexibility, whereas the mobile phone gives us the possibility to order things anywhere at any time. Driver number three is termed *right purchase*, a manifestation of the huge choice mobile shopping gives us. This selection guarantees that we can, at least in theory find the best fitting product. With more and more mobile supported webpages popping out, the variety and depth of products is already that big, that some of us even feel threatened by it. (Fuentes et al., 2017) Eventually driver number four refers to the price and is called *money savings*. For the first time, since the assumption of perfect information has been introduced into economics, we in reality potentially possess the opportunity to achieve it. Several price comparison tools as well as several search sites show us the cheapest prices for a specific product, which finally make businesses to price takers, as microeconomics suggests.

All of the four aforementioned motivators, time savings, effort savings, right purchase and money savings can be considered efficiency gains for costumers and it is not wrong to say that all four of them can be counted utilitarian.

Voropanova (2015) extends and modifies Atkins et als. (2012) approach as she is convinced that hedonic factors and motivators also play a significant role. Additionally to the four drivers established before, she integrates *emotional benefits* into the model. Those 5 dimensions of costumer productivity can be considered the drivers in her paper. Another extension comes with the introduction of shopping value as dependent variable, based on the idea, that shopping productivity, as expressed by the 5 drivers, is not the same as shopping values. Shopping value has two dimensions, a utilitarian one and a hedonistic one. "*M-Commerce gives customers access to more full market information, thus enabling them to make better purchase decisions and improve their shopping productivity. Productivity gain is a premise for value creation...*"

Voropanova(2015, p: 539) To make all that a bit clearer: People use their mobile phone as it gives them the ability to create utilitarian or hedonic shopping value due to shopping productivity increase. Other scholars have shifted focus away from rational and utilitarian aspects towards hedonic factors. The main reason for that is the smartphones personal nature. People have much more of a relationship to their mobile phone than to their laptop as smartphones are steady companion nowadays. Thus it only seems reasonable to integrate aspects like joy and pleasure more heavily into the picture. (Ko et al., 2009; Li et al., 2010; Turel et al., 2010; Yang et al., 2012, Li et al; 2012) Li et al (2012) establish a stimulus organism response model (S-O-R) to examine several utilitarian as well as hedonic factors and their findings imply that the latter ones even have a stronger effect than the former ones. In first place they prove that several cues trigger certain emotional feelings in the organism. These cues, which served as stimuli in this model are *convenience*, *media richness*, *subjective norms* and *self-efficacy*. Media richness in this context means the quality and also quantity of communication styles given by a mobile phone. Writing a text or WhatsApp message is equally possible as a simple call or a video conversation. Coming along with those different communication styles is a different quality of communication and interaction. While texts can only transmit words, a skype call can show a person's body language, too. *"New technology on mobility things brings impacts on the quality or nature of communications between people, which enriches their mobile life and increase pleasure and excitement during usage."* (Li et al., 2012, p: 127) The other three variables, convenience, subjective norms and self-efficacy have already been described in the first section of chapter 2. When tested as independents on emotion it turns out that media richness and subjective norms have a significant positive influence, whereas self-efficacy and convenience don't have. This shows that hedonic factors are much more likely triggering emotions in an organism. The second important finding of their study is the positive significant relation between *emotion* and *consumption experience*. Putting it very plain and simple: Hedonic motives for mobile shopping trigger positive or negative emotions such as love, joy, pride, anger, anxiety and these emotions in turn positively impact the consumption experience. (Li et al , 2012)

Also highly interesting is a study conducted by Yang et al. (2012). In their multiple discriminant analyses they distinguish between mobile shoppers and non-mobile

shoppers in order to identify the motivations for mobile shopping. While also including some utilitarian factors the major emphasis lies on hedonic drivers. More specifically they tested 8 variables and tried to find out, if they were significant predictors for a respondent to be a m-shopper or a non-m-shopper. Where the variables *achievement shopping*, *efficiency* and *value shopping* can be counted to the utilitarian shopping motivations, *idea shopping*, *adventure shopping*, *gratification shopping*, *role shopping* and *social shopping* are considered to be hedonic dimensions. Most of the variables are very self-explanatory and for this matter it is not that important to understand the exact meaning of them. What is much more relevant is the result of the study. Overall the eight shopping variables explained 9.3 percent of the difference between the mobile and non-mobile shoppers, with the most important predictors being idea, adventure and efficiency shopping. Also rather important are social and gratification shopping whereas role shopping, achievement shopping and value shopping only show minor importance. This means that only 1 out of 3 utilitarian variables, namely efficiency shopping is from noteworthy impact, however 4 out of 5 hedonic variables can be regarded predictive. Overall it can be stated that hedonic variables are stronger predictors than utilitarian variables, which is very much aligned with several other studies. (Ko et al., 2009; Li and Yeh, 2010; Turel et al., 2010)

Summing up all that leads us to understand that there has been some research done, however it is pretty hard to circle out some main motivators for shopping. On the one hand the scholars covering the topic have mostly chosen different approaches making it tough to find common variables and common results. Where one establishes a S-O-R model, or uses a multiple discriminant analyses, the next one builds an own model, where the one focuses and stresses the utilitarian elements the next one emphasizes the hedonic ones. Overall the only consensus is that some utilitarian aspects as well as some hedonic aspects play a role, but agreement often doesn't last much longer than that. Noteworthy however, is the fact that in very recent reports and newspaper articles utilitarian motives dominate. One very good example is the worldwide mobile shopping study by Statista (2016), which mainly points towards utilitarian motives. The three arguments for mobile shopping mentioned most often are "It was convenient", "To save time" and "To save money", as can be seen in Figure 2.

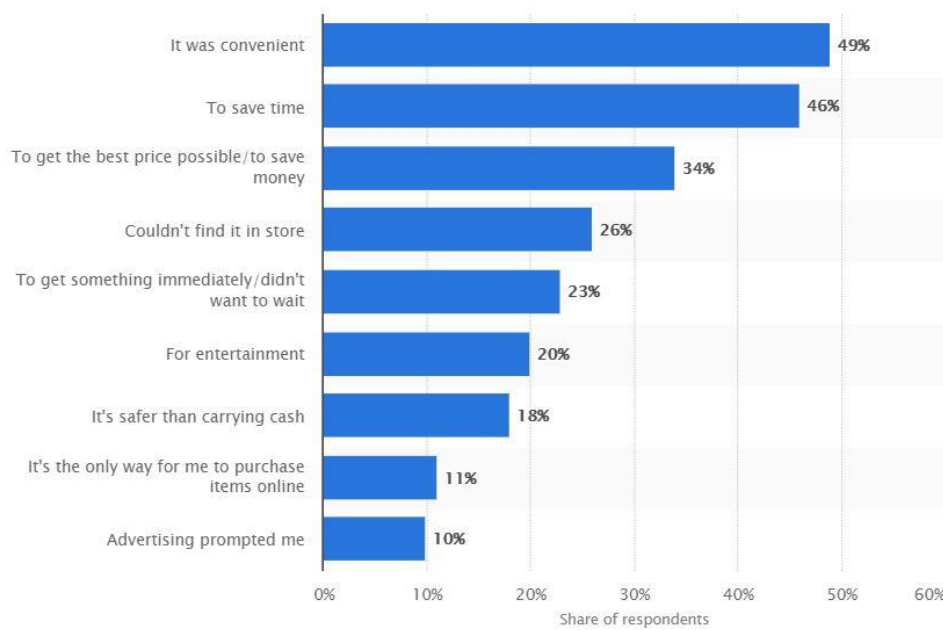


Figure 2: Reasons for mobile shopping; Source: Statista 2016

c. Customer Attitudes towards Mobile Marketing

Finally, research exploring the consumer attitudes and responses towards mobile marketing is the third area of research. Spread in many different papers, there is quite a lot of results in total. Ström et al. (2014) and also Shakar et al. (2010) summarize the existing literature to a good extent and serve as a good source of information. Since mobile marketing is not the major area of interest in this thesis, only the most relevant papers will be mentioned in this chapter.

To start with, the terminology mobile marketing has to be defined a bit better. Mobile Marketing refers to the promotion and advertisement of products and services via portable devices, such as smartphones or tablets. According to the Mobile Marketing Association, mobile marketing is the use of wireless media as an integrated content delivery and direct response vehicle within cross-media or standalone marketing communications program. (MMA, 2006) Ranging from push notifications, text messages via newsletters and social marketing to display advertisements, it offers a huge number of possibly getting in contact with a customer. In contrast to other means of marketing the most notable difference of mobile marketing is its personalized way. Location

services, and other features of the newest mobile technology make it possible to tailor marketing campaigns and advertisements in a way that it can be the by far most timely and relevant way of marketing. (Investopedia, 2018; Goh et al., 2015)

Not only considered as the biggest innovation in digital marketing of the last decade but also praised as the future of marketing, things are not just that easy and there are far more obstacles than lots of marketers are ready to admit. Especially the aforementioned personal nature of the device brings most opportunities on the one hand but equally is one of the biggest problem at the same time.

The paper of Tsang et al. (2004) with the title “Consumer Attitudes towards Mobile Marketing: An Empirical Study” is one of the most cited of the topic and also serves as one of the first works questioning the common sense, that mobile marketing is the new big channel. Interestingly enough her results show the negative attitude respondents have towards receiving ads on their mobile phone. Only reaching an average score of 2.76 on the 5 point Likert scale, when asked about the attitude towards mobile shopping is an obvious indicator for the negative feelings costumers have. Very important in this context is the mediating role *permission* has. Customers who agreed to get advertisements on their mobiles had a significantly different attitude towards the ads than those who did not gave permission prior to getting an ad. The difference was that big, that the former groups average rating exceeded the neutral rating of 3 on the Likert scale expressing positive feelings, whereas the latter groups average rating was significantly below 3 expressing negative feelings. This results stress the importance of permission for mobile marketing activities but there is by no means a consensus about that. (Grant et al., 2007)

Tsang et al. (2004) found *perceived entertainment, informativeness, irritation* and *credibility* as significant predictors of *attitude towards mobile ads*. Three out of the four variables have a positive influence on the rating of a mobile ad. The higher the entertainment, informativeness and credibility of an ad, the better the respondents’ attitudes towards it. The inverse logic applies for the variable irritation. Very unsurprisingly, ads which irritate consumers are considered to be annoying, where irritation not only expresses strange ads but also the amount of ads sent by a company. A more methodical approach is taken by Sultan et al. (2009). They try to conventionalize the antecedents of mobile marketing acceptance. In their model the dependent variable

is *mobile marketing acceptance* and the two main independent variables are *personal attachment* and *risk acceptance*. Personal attachment refers to the extent of personalization, meaning a higher degree of configuration with regards to ringtone, wallpapers, apps and others results in a higher level of personal attachment. Risk acceptance on the other hand is a construct expressing the likelihood of respondents to unveil personal data to websites. The influence of these two independent variables on the mobile marketing acceptance is not direct however but runs through 3 mobile activity variables, which are *providing information*, *sharing content* and *accessing content*. Put simply, the theory of the model is as follows: *Risk acceptance* and *personal attachment* impact the extent of a consumer's mobile activity, expressed by the three variables *providing information*, *sharing content* and *accessing content*. These three mobile activity variables in their turn influence the dependent variable *mobile marketing acceptance*. Subsequently the two main independent variables *risk acceptance* and *personal attachment* influence the extent of mobile activity and the extent of mobile activity in the next step plays a crucial role for the mobile marketing acceptance.

In the end their results show that *personal attachment* and *risk acceptance* are mediated by only two out of three activity variables, which are *providing information* and *sharing content*. This means: The personal attachment to the mobile phone as well as the willingness to share personal data with websites influences the mobile activity level (providing information & sharing content) and those two mediators in turn influence the acceptance of mobile marketing. The third mediating variable, *accessing content* has no significant relationship on *mobile marketing acceptance*.

Other scholars covering the topic are Drossos et al.(2013) and their results are from high value particularly due to its managerial implications. Similar to the studies mentioned before *attitude towards the sms ad* serves as dependent variable. Testing plenty of variables which can be assigned to two major fields namely personal related variables and ad related variables leads to some interesting results. From the personal related variables the most notable significant, however not very surprising effect comes from general *attitudes towards sms ads*. This means that persons, who have positive sentiments towards receiving sms ads in general rate each sms ad better. The ad related variables bring more interesting conclusions. On the one hand sms ads with incentives such as coupons lead to a better attitude towards the ad, on the other hand credibility

of ads is very important. Further the strength of the communicated message is very important as strong arguments lead to better attitudes than weak ones. This is nothing too new for marketers and is the root for a lot of exaggerated marketing messages. Apart from that also the involvement which is reached by the ad is decisive for the attitude towards it. Ads which involve the customer are of course more efficient and lead to better opinions.

One of the most interesting and also most detailed studies is conducted by Goh et al. (2015). Unlike most literature in this area, their study does not focus on attitudes towards mobile marketing but takes *mobile marketing response* as its dependent variable. Besides the two major independent variables *informative advertising* and *persuasive advertising* the study also includes two mediating variables which are *depth of information search* and *breadth of information search*. *Informative advertising* refers to ads which are more text- and information- heavy and *persuasive advertising* is a construct which leans more towards pictures and emotional aspects. *Depth of search* is the amount of goal directed search that aims to collect relevant information for just one single purchase decision or product. In contrast *breadth of search* is the extent of exploratory search, where the consumer is not that focused on a certain product and thus less fixed and deliberate.

The chain of logic is now that *informative* as well as *persuasive* advertising has an impact on the *breadth* and *depth of information search* and those two variables determine the *mobile ad response*. The first part of the model, which is the effect of *informative/persuasive advertising* on the two information search behaviors turns out to have a non-linear relationship. *Informative advertising* has a u-shaped relationship with *depth of search* and *persuasive advertising* has an inverted u-shape relationship with *depth of search*. Subsequently in case of informative ads it is better to have either some few number of ads per customer or very many ads per customer to boost depth of search. In between the depth of information does not increase. In case of persuasive advertising there is a certain optimal amount of ads, so here not too little and not too many exposures is key. With regards to breadth of search both informative as well as persuasive advertising have an inverted u-shaped relationship.

The second part of the model, namely the impact of the two types of information search (breadth and depth) on the *mobile marketing response* is positive. The deeper and the

broader a customer searches the better the results of a mobile advertisement. Shankar et al. (2009) emphasized several personal attributes which enhance the likelihood of a customer having a good attitude towards mobile marketing. In the paper they suggest that males have a better attitude towards mobile ads than women, and so do young adults when compared to older age groups. Likewise does higher income lead to better attitude than lower income and heavier use of mobile phones when tested against lower use of mobile phones. Mobile ads with the best response are those which are predominantly from entertaining nature as opposed to very informative ads. It further appears that mobile marketing is most efficient to create new needs for low involvement products by using very short and eye-catching content. Eventually Shankar et al. (2009) note that the interest for mobile marketing from customer side is by far less existent than a lot of marketers would wish for.

Summing up all the literature touching the topic mobile marketing is not so easy. What was in early years considered the marketing channel of the future faced several barriers over time and still is by far less efficient than expected. The personal nature of the mobile devices not only opens up the biggest chances, such as location based marketing but at the same time is also poses the biggest challenge. Too many customers are annoyed by mobile marketing and thus have a very negative attitude towards it. Perceived risk is also still a concern particularly in case of older people whose mobile literacy is not yet that well established. (Shankar, 2010) Still the situation is by no means hopeless as mobile marketing acceptance will get higher as mobile shopping get more of the subjective norm each and every day.

d. Mobile Shopping Behavior

This chapter addresses mobile shopping behavior per se and should serve as the base for what comes in further chapters of this master thesis. Despite being very small quantity-wise, activity based literature on mobile shopping can be considered as the fourth stream of literature. Of course, with only a handful of papers published so far this seems a bit exaggerated, but keeping in mind the m-commerce developments very recently, it is only a matter of time until more scholars will focus their capacities on this topic. But not only in theory is the topic very appealing, it is even much more valuable

in practice. Since a lot of shopping activities get shifted from offline to online it is not enough anymore to understand how people behave in stores, but getting insights into mobile shopping patterns is key to survive in a competitive environment. Thus the practical interest in this area should also be a driver for a growing number of literature in the future.

One of the first scholars touching upon mobile shopping behavior is Groß (2015) with his paper: "Mobile Shopping: a classification framework and literature review". For this purpose he analyses several Journals related to the issue and tries to figure out what has been achieved so far. With regards to the online distribution channel he points to 2 fields of mobile shopping which have been covered in a satisfactory manner, namely "Technology Acceptance" and "Motivations for Mobile Shopping". Both of these have already been summarized in this thesis. On the other hand however he argues that: *"As of 2012, the mobile online purchasing behavior represents an area deserving additional research, as currently few exist. More specifically, the context in which people use mobile phones for online purchases has scarcely been researched to date and is often described as "on the move".* (Groß, 2015: 227) Further he argues that it would be utterly important to not only understand what activities happen in the mobile shopping process, but also to cluster and segment the various types of shoppers.

At almost the same time, Holmes et al. (2014) made the first approach to fill this gap. In their paper "Mobile Shopping Behavior: Insights into attitudes, shopping process involvement and location" they answer several very interesting research questions. First, they want to find the relative level of mobile use depending on the involvement of the product. Second, they try to find out what the relative level of mobile use at different stages in the consumer decision making process is. Third, they want to know where people are when they use their mobile for online purchase. All of these questions are highly interesting and therefore covered in detail here. In collaboration with a market research agency, Holmes et al. (2014) developed a structured questionnaire with most of the items being semantic differentials in order to explore the emotional drivers behind mobile shopping. Additionally some few open items served as tools to understand the reasoning behind responses. The survey was then conducted for 3 different product types. Product type one was low involvement products (bread and washing powder), product type number two was mid involvement products (DVD

players and shoes) and product type number three was high involvement products (Mobile phones and Tv). The sample consisted of 1005 consumers which were equally distributed among genders, age groups and among areas of the UK.

Holmes et al. found that in all 3 product categories the use of mobile phones was lower than the use of desktop computers. In case of low involvement products both, mobile phones as well as computers were used less than in case of high involvement products. Subsequently the higher the level of involvement the higher the usage of all devices.

Shifting the attention to the relative use of mobile phones in dependency of the purchase process it is important to acknowledge that the purchase decision making process consisted out of three stages, which are information search, evaluation of alternatives and purchase. It turned out that the relative use of mobile phones was significantly higher in case of the first two stages when compared to the third stage. According to the study costumers used the mobile phones in a more extensive manner for information search and for evaluation of products than they did for purchasing reasons. Activities such as searching for discount vouchers or promotions, checking stock availability or comparing prices are very frequently done and lead to the fact that mobiles have been used mainly in pre-purchase stages.

Concerning the location where mobile shopping mostly is performed Holmes' results are to some extent surprising. As mobile phones are giving us the opportunity to shop virtually everywhere one could assume lots of purchases to happen outside of home. However the contrary appears to be true and most of the mobile shopping activity happens at home. *"..., despite the rhetoric concerning the value of locational marketing and 'the brand on the move' through mobile devices, consumers do their mobile shopping activities at home. Across all products, an average of 32% of information search, 47% of review of alternatives, and 35% of purchase activity through mobile phones took place at home."* (Holmes et al., 2014, p: 8) Apart from those three main findings, the study also figures convenience and accessibility to be the superior motives for mobile shopping, supporting the opinion that mobile devices are mostly used for utilitarian reasons.

By far the best and most complete paper covering the mobile shopping behavior topic has just recently been published by Fuentes et al. (2017) from Lund University in Sweden. The title "Mobile phones and the practice of shopping: A study on how young

adults use smartphones to shop” already indicates the major goal of the study, namely finding out how young adults use their smartphones for shopping causes. Taking an explorative approach in form of focus groups enabled the authors to uncover some interesting shopping patterns which probably would not have gotten explored with quantitative methods. By discussing the topic in focus groups, participants present their ideas, listen to others and talk about tacit knowledge and non-reflexive practices, which lead to a good depth and breadth of information. Centered around young costumers, which is in accordance to the age groups most commonly shopping with mobile phones, 9 focus groups consisting out of 4-9 undergraduate students were formed. The data of the focus groups were iteratively analyzed and after identifying and coding certain main topics the authors searched for expressions of the elements.

One of the most discussed topics was “mobile window shopping”. In this context mobile window shopping can be considered to be as browsing through various online shops. Not so much the purchase per se is the goal, but the process of visiting different retailers’ or brands’ webpages. As it is in case of the normal window shopping in the streets the activity itself has an intrinsic value and leads to spontaneous impulse purchases. Very often respondents used the mobile phone as source of entertainment, and particularly in case of waiting times mobile phones serve as viable devices to bridge several minutes or even hours.

“Finding inspiration and staying updated” was another issue which was talked a lot about. “Idea shopping” is the term describing this kind of behavior most fittingly. It turned out that it was not so much the webpages of brands or retailers which were utilized as primary information source but much more it was blogs and social media channels such as Facebook or Instagram. Gathering information about trends in fashion, check apps for news or finding out about new product releases were the most mentioned activities related to this category and served as means for not “missing out” on something. However this big amount of information in one’s pocket is not considered positive by all of the respondents and several noted that the addictive nature of the mobile concerns them, as does the overflow of information.

Unlike the prior 2 categories the next one “researching purchases and finding products” more refers to the utilitarian values of mobile shopping. Googling products in order to reading product descriptions and product reviews is a way of coming up with a better

purchase due to a better level of information. It is not necessary to visit various stores for making well-informed decision since the whole information can be found in the internet. This leads to a much better input/output ratio as the needed effort for a specific purchase is significantly lower and the purchase is most probably much better due to more information. But this empowerment of the costumer does not only stem from reading product texts but also from “reading product reviews and comparing prices”, which is category number 4. Most of the respondents used their mobile phones to get product related reviews and it also showed that they value those reviews over marketing and advice from shop stuff. Surprising however is the fact, that most of the respondents never write reviews themselves. The ability to compare prices is most probably the biggest contributor to making a well-informed purchase. The internet with all its price comparison tool, such as Google or other price comparison websites gives the costumers finally the chance to really behave like a homo oeconomicus with perfect price information. What was long time an unrealistic micro economical assumption is getting reality and perfect competition has never been more true than now. This is very well described by the following statement of one respondent: *“It’s very convenient as you then have your mobile on you when checking around, and you are able to compare when you’re in the shops. I can Google an item and see if it’s cheaper somewhere else. You can save money doing that.”*(Fuentes et al., 2017, p: 141)

The papers final category of shopping activity can be summed up in “mobile phones and stores: localizing, socializing and bargain hunting”. Here both channels, brick and mortar as well as online are used at the same time. First and foremost the phone gets used either as complement to sales stuff to get additional information or validate the information given by the sales stuff, or in other cases completely replaces the sales stuff. Mobile phones make consumers more self-confident as they potentially know more than the sales stuff which in turn leads to a better position for the shoppers. This of course also holds to be true for price information, what oftentimes leads to a shopping phenomenon termed “showrooming”. In this case costumers visit a store with the intention to just try a certain product, but then purchasing it later online for a cheaper price. Speaking about showrooming certainly stresses how important so called Omni-channel strategies are today. Without an online shop, retailers get endangered to just

serve as a fitting room and once more the mighty price comparison tools the internet provides seem very much important to consider.

At the same time mobile phones give customers the opportunity to social shop as well, thanks to various apps which allow sending pictures in real-time. Fuentes et al.(2017) found that various respondents sent pictures from certain products to friends for getting social opinion and having them participate in their shopping decision. This phenomenon of course does not stop with pictures but also screenshots are very much common for getting a friend's feedback and reducing the risk of a bad purchase. Mobile shopping has turned from an individual activity to a social activity. Finally the students also discussed some online payment issues, which still poses a barrier to shop online in various cases. Since this paper is definitely the one which dives deepest into the mobile shopping behavior topic, it is a great foundation for this master thesis, especially due to several scholars complaining about the big existing gap in literature. (Groß,2015; Holmes et al., 2014; Fuentes et al., 2017; Spaid et al., 2014) Thus this thesis fits perfectly after Fuentes et als. (2017) work and builds upon it. In the next chapter the exact research questions as well as the methodology will be explained in more detail.

3. Methodology

After summarizing the existing literature with respect to mobile shopping, ranging from very general aspects such as "Technology Acceptance", "Motivations for Mobile Shopping" and "Attitude towards Mobile Marketing" to the very much most related literature on "Mobile Shopping Behavior" we now have clarified where this master thesis can be located in the literature. The next steps are to introduce the tested model and the questionnaire. However before this is done it is necessary to introduce the company the master thesis is written in collaboration with.

a. Excuse - XXL Sports and Outdoor

XXL is a Scandinavian sporting goods retailer established in 2001 in Norway. From almost the very beginning XXL followed an Omni-channel strategy as shortly after opening the first store in Oslo the Norwegian online shop was launched in 2002. Taking Norway by

storm XXL quickly gained enormous market shares and it did not take long until it became the biggest sports retailer in Norway. Nordic expansion was only a logic consequence of the success and in the course of the years XXL opened several stores in Sweden as well as in Finland and also launched country specific online shops. Beside those three countries XXL additionally launched 2 more webshops in Denmark and Russia. With companywide average growth rates of about 20% each year XXL not only is the fastest growing sports retailer in the world but today also the biggest sports retailer in Northern Europe.

The great success is nourished by several aspects, and one of the biggest contributors is probably the aggressive pricing. From the very beginning XXL offered its customers the best price guarantee, which means that as soon as costumers find products cheaper elsewhere XXL matches the price and the costumer either gets the cheaper price or, in case the costumer has already bought the product up to 1 month prior gets parts of his money back. With a brand share of about 95% this means that Nike, Adidas, Salewa and a lot of other very popular sports brands are available for the cheapest price of the market at XXL.

Another important ingredient of the success are lots of marketing activities. In each country a 10-20 page leaflet with special offers is added in one of the biggest newspapers per country per week. This of course drives lots of traffic to stores as well as to the online web shops. Additionally to this printed leaflet XXL follows a very aggressive online marketing strategy, too. Each week 3-4 newsletters with very low prices are sent to subscribers, and those newsletters are supported by social media advertising and also in some case with display advertising. This constant push strategy not only provides customers with around 150 special offers in total per country, but also leads to big awareness all time.

Apart from the pricing and marketing the selection is another big success factor. XXL's goal is to provide the costumers with a huge choice of products in almost every type of sports. The assortment includes not only a big range of bikes, skis, running equipment, hiking equipment or sportswear, but even fringe sports like badminton, ice hockey or American football have significant shelf space in store and online. Due to its Scandinavian roots, even hunting and fishing products are offered in good number. Of course this big amount of products has to be accommodated, therefore almost all XXL

stores are more than 5000 sqm big. The XXL slogan “ALL Sports United” sums up the concept in a very accurate way.

In summer 2017 eventually XXL expanded to central Europe and selected Austria as the starting point for it. With 3 Stores already established and 1 Austrian online shop the goals are very ambitious and the plan is to have around 20 shops until 2020 in Austria.

To conclude this short introduction of the company it is essential to understand that XXL is using lots of marketing budget to promote around 4-5 big campaigns per week, 3-4 are only advertised online and 1 is also advertised with a printed leaflet. Therefore a lot of traffic to the web shop is generated and lots of people are converting. For that reason the XXL webstore serves as ideal environment to explore mobile shopping behavior and answer the research questions.

b. Conceptual Framework and Research Questions

After taking a detailed look into the literature we found a significant lack of literature with regards to mobile shopping behavior. Despite huge growth rates of around 40% and most probably being one of the future retail channels, scientific work is little and lots of questions remain. Building up on the most related papers in chapter 2d it is now time to establish an own model which should shed more light into the topic and give additional starting points for future research. For doing this let us focus again on the research questions RQ1-RQ3 which have been defined in section 1 already.

RQ1: What are mobile shopper’s typical pre-purchase behavioral patterns while shopping online.

The goal of this question is very straight forward as the focus lies on the pre-purchase tasks and activities performed by mobile shoppers. For getting a better understanding of the topic it is necessary to shortly summarize the pathway to an online conversion.

Oftentimes the starting point is an online promotion in various forms. Larsson (2016) differentiates between three big groups of online promotions where traffic you own is the first one, traffic you control the second one and traffic you cannot control is the third one. The big difference between those three traffic sources is, as the names already indicate the extent of control.

Traffic you own is by far the most valuable since this type of traffic is generated without any payment needed and also as often as it is wished. The by far most prominent, and maybe also only kind of online promotion leading to traffic you own are Newsletters. All subscribers are collected in a company's database and it is totally up to the owner of this database, which content is sent in a Newsletter and how frequently this happens. Of course, big parts of newsletter subscribers do not come by chance and often big effort in form of lotteries, vouchers or other non-monetary or monetary incentives have to be made. Still, as soon as a person subscribes and accepts certain terms and conditions the company can virtually send whatever promotion they want to the acquired subscriber. This makes Newsletter subscribers to one of the biggest assets of ecommerce businesses and also in case of XXL subscribers are the backbone of the business.

Compared to that, *traffic you control* is inferior. The big difference in contrast to the traffic you own is the fact that you have to pay for it. Display Advertisement, Social Media Ads, Google AdWords, and affiliate promotions are the most commonly used online promotions to achieve this type of traffic. However the fact that you have to pay for it is not always a disadvantage since this to a certain degree gives you control over a pages' visitors. The logic behind it is: The more marketing money you spent, the more traffic you get. Take as an example a simple Facebook ad. Here a company pays Facebook a certain amount of money and Facebook generates a specific amount of traffic to the company's page. Of course, the amount of traffic generated by a Facebook ad is highly dependent on various things, such as how well the targeting is, how attractive the visual is and which ad objective is selected, still it is a viable source to buy traffic with online promotions such as Facebook ads, Google AdWords and so on. Particularly in situations where organic traffic is low due to seasonal circumstances, or if you are new in a market and organic traffic is still not existent, traffic you control with its various types of online promotions proves to be indispensable.

Eventually there is *traffic you don't control* often also referred to as organic traffic. The major online promotion forms which sum up to this type of traffic is on the one hand unpaid social media marketing, which is posting content on a company's Facebook page and search engine optimization. Search engine optimization means the maximization of visitors to a webpage due to a high ranking in a specific search engines results. The major

tool to execute search engine optimization is to make sure that the content most accurately fits to what is searched. (Larsson, 2016)

After a customer is attracted by one of the just mentioned online promotions he gets directed to the webpage of a company, which is in our case the XXL web shop. What comes after this, is a black box which includes all the behavioral patterns customers do, and RQ1 can be exactly fitted in here. Eventually, depending on the branch and the popularity of the business 1-10% of the traffic converts at the end of the shopping journey.

In order to answer RQ1 and clear up what is in this black box, a questionnaire consisting out of mostly binary variables has been added to the XXL order confirmation. In section 3c the questionnaire will be described in more detail, for now it is just important to understand that this questionnaire included a set of 9 binary behavior variables, and that the placement of the questionnaire was in the order confirmation. This of course posed the limitation, that only XXL customers, who purchased could participate in the survey, making it impossible to find out any differences between the converting and non-converting customers. The big plus however is the reached data validity, as the questionnaire did ask for specific behavior right after the behavior was actually executed. (Craig and Douglas, 2005) In fact the XXL order confirmation is sent to the customer right after the order process is finished. For now this is enough information about the questionnaire and focus is shifted towards the 9 behavioral variables.

Behavioral Variables:

- 1) Reading Product Text: At the XXL website each and every product is shortly described with a product text. This product text mostly includes a short coherent text and some key technical facts. Placed directly beneath the product it should give the customer basic information about the viewed item. The variable "Reading Product Text" should now check, whether this text is read by customers or not.
- 2) Searching for more Technical Information on Other Websites: As a sports retailer XXL sells a lot of different brands. Among the sold items are very technical products such as bikes, skis, tents or home gym machines, which could cost up to 10000 Euros. Since the XXL product text is by far not as detailed as the product text provided on the specific brand pages this variable should find out if

customers do visit other web stores in order to find more in depth intelligence. Of course this is not only limited to brand pages, but it can well be that customers visit competitor's websites, either because XXL is still new in the market and they trust some competitors more or because some specialist competitors provide better information. So in this context other websites refers to brand pages and competitor pages equally.

- 3) Reading Product Reviews: Fuentes et al. (2017) found that product reviews are a well-established tool to gather information about a product. Due to other customers being the authors of these reviews lots of people consider them much more credible than company written texts. At the XXL website there is no room for customer reviews as it often is on other webpages, thus the variable "Reading Product Reviews" checks if customers read product reviews on other pages such as Amazon or Google.
- 4) Comparing Prices: Probably the most interesting variable in the whole set of behavior variables. Do the customers make use of the price comparison power the internet has and make the most efficient and rational decisions based on perfect price information? That is exactly what this variable tries to answer. The price comparison tools provided are numerous and range from local pages such as geizhals.at and idealo.at to global pages such as Google. Price checking however does not only stop at price comparison sites, also visiting a competitor's website to check if the product is available for less money is covered by the variable "comparing prices".
- 5) Searching for Online Vouchers: Placed on specific websites such as Groupon or Sparhamster online vouchers should give customers additional incentives to buy at a webstore. Most of the time these vouchers are from little value, but still can increase the conversion rate simply because customers believe they get an extra discount. The variable checks if XXL customers looked for this kind of online voucher before converting.
- 6) Sending Screenshots: This variable should show how many customers engage with friends and relatives during their shopping journey. Sending screenshots as well as pictures of products is a very easy way to get social approval and reduce the risk of a bad purchase. Particularly while mobile shopping it almost takes no

effort to share a picture with somebody else via WhatsApp or other apps offering a sharing function. In a way “Sending Screenshot” measures how social mobile shopping in fact is.

- 7) Checking Delivery Terms: Delivery terms can differ with regards to delivery costs, deliver time and delivery type. XXL offers free shipment when purchase value exceeds 50 Euros and deliver times are between 2-5 days. Delivery type is either with the Austrian Post to home or pick up at store. The interest of this variable is, if the costumer checks delivery terms prior to the conversion or not.
- 8) Checking Return Policy: With a very high return rate in central Europe, returns are one of the biggest troubles of ecommerce businesses. In case of some product types return rates are almost as high as 50%, meaning costumers order two products and send one back. This problem is very location specific and does not pose a problem in other countries at all, as return rates are marginal. “Checking Return Policy” should provide an insight into how many XXL costumers had a look at the return policy prior to conversion and subsequently show how many of them ordered with the thought of returning a product already in mind.
- 9) Checking XXL’s Facebook Page: This last variable tries to express the importance of the company’s social media appearance right before the purchase. Of course social media is most of the times at the very beginning of the mobile shoppers’ path to the conversion and works very good for driving traffic to an online store, in this study however the variable can be considered more of a final check before the purchase.

These 9 behavioral variables have been mainly selected in accordance to previous literature. Variables such as “Reading Product Text”, “Reading Product Reviews” “Comparing Prices” and “Checking Facebook Page” have been qualitatively discussed in Fuentes et al. (2017) and are more less one to one copied into this thesis and also “Sending Screenshots” is derived from his discussion about socialization. The rest of variables is also partly covered in the literature and also to a certain extent has been chosen out of curiosity. (Fuentes et al., 2017; Smith et al., 2016; Edelman et al., 2016; Holmes et al., 2014) “Checking delivery terms” is interesting in so far as it gives an indication on how important delivery costs and delivery time are. If costumers seldom

check the delivery terms an increase of delivery costs could possibly not be as bad for the conversion rate as maybe thought. "Checking Return Policy" gives a nice insight into customer thinking, too, as it shows how many customers are playing with the thought of sending back some products while ordering. "Searching for more Technical Information on Other Websites" is not really covered by any prior literature and was mainly selected due to the fact that XXL is very new in the market and it could well be that people do not trust the product texts yet. Of course, there are many more variables which could prove to be worth knowing, however it was an utmost goal to get as many respondents as possible and this meant to limit the questions to a relatively small number.

RQ2: Are there differences in mobile shopper's behavioral patterns between gender, age groups, traffic sources, New vs Returning Customers and used Device.

After revealing how often each of the 9 behavioral activities has been performed while mobile shopping, the logical next step is to ask if differences between various attribute variables exist. At the end 5 attribute variables have been selected.

Customer Attributes:

- 1) Gender: Used as a segmentation variable for many marketing related topics, "Gender" makes a lot of sense to choose as attribute variable in this thesis, too. Not only is it common knowledge that women and men shop quite differently with regards to offline shopping but various papers do also point out differences in online shopping behavior, too. Seock et al. (2008) found that females have a higher online shopping enjoyment, brand consciousness, price consciousness and shopping confidence than males. The results of Park et al. (2009) show that females do more product searching, inform themselves more about products and are more willing to view consumer reviews than males. The last point is in accordance to Gabarino et al. (2004) arguing that women are more likely to follow recommendation of friends than men do and thus also more likely ask for advice than men do. Bae et al. (2011) argue that negative reviews affect women more negatively than men. At the same time are women more concerned about privacy issues and they also perceive the risk of online

shopping higher than men.(Gabarino et al., 2004; Bae et al., 2011). All these results are clear indicators of a difference in mobile shopping behavior between men and women, even though most of these studies have been conducted for online shopping rather than mobile shopping. It is reasonable to assume that in variables such as “Reading Reviews”, “Sending Screenshots”, “Reading Product Texts”, “Checking Delivery Terms” and “Checking Return Rate” a different level of activity occurs between men and women, for this reason the first attribute variable is “Gender”.

Several more scholars have covered the gender gap in online shopping, however citing all of them would exceed the scope of this thesis.

- 2) Age: The next very obvious segmentation variable is “Age”. Again literature provides some evidence to presume that there could be different mobile shopping behavior between age groups. Zickuhr(2010) uses 6 age groups which are Millennials, Gen X, Young Boomers, Older Boomers, Silent Generation, G.I. Generation and finds that the online activities in general greatly varies between those groups. Smith et al. (2016) argue that younger age groups use social media more heavily, read product reviews more often and are more interested in getting social confirmation by sending screenshots. Lian et al. (2014) on the other hand argue that older age groups weigh heavier on the risks of online shopping, which makes them more reluctant to order via the web. Again, most of the studies are more related to online shopping in general than to mobile shopping, but the literature can serve as hint for differences between age groups. Like in some other studies the variable “Age” is divided into 3 different age groups which are 18-34 year, 35-54 years and 55+. (Shankar et al., 2010) A more split up segmentation would probably give more insights into the divergent behavior forms, however since it was not clear how many respondents would participate it was more reasonable to just form 3 age groups and accept an information loss in turn for more respondents per age group.
- 3) New vs Returning Customers: Another source of differences in mobile shopping behavior could be “New vs Returning Customers”. Where new customers are customers purchasing the first time at XXL, returning customers are all

customer, who already purchased at least once before. According to an article published by Business Insider (2016) returning customers are far more valuable than new ones. Besides a 100% higher conversion rate returning customers also have significantly lower bounce rate. A bounce in context of ecommerce is a single page session, meaning a customer leaves right after viewing the first page. Simply due to these two major differences proved also by several other studies and articles it could also well be that the mobile shopping behavior significantly varies between those two customer segments. Smith et al. (2016) also find that activities such as comparing prices and reading reviews is especially important when buying for the first time, implying that new customers could have a higher activity level than returning ones.

- 4) Traffic Source: As already discussed at the beginning of chapter 3b there are various types of traffic sources. Traffic you own is predominantly generated by newsletters, whereas traffic you control is driven by display ads, google ads and social media ads. Eventually traffic you cannot control can be considered organic traffic. Since newsletter subscribers agreed to frequently getting the newsletter they are most probably much more open to getting XXL related offers than people, who stumble across a XXL display ad when checking the news. In this context Larsson (2016) undertakes another typology of traffic sources. Depending on how often customers get in contact with XXL, they can be assigned to "Hot-", "Warm-" and "Cold Traffic". Customers, who get in contact with XXL ads on a frequent basis and at least purchased once at XXL are classified as hot traffic. In the group warm traffic, there are all the people who are somewhat familiar with XXL, but never purchased before. Eventually cold traffic refers to the people who get in contact with an XXL ad for the first time. Now it is not far-fetched at all to believe that it makes a difference in our 9 behavioral variables if a customer is classified as hot or as cold traffic. To check this our traffic variable has 6 manifestations, which together cover all possible ways of getting to the webpage. Besides newsletter traffic and social media traffic people could also visit XXL via other websites, such as display advertisements or price comparison tools, directly or because of the XXL print ad.

5) Mobile vs Computer: Very little literature can be found supporting or doubting differences in shopping behavior between mobile users and computer users, what can mainly be attributed to the fact, that there is very little literature on mobile shopping. It seems to be the case however, that order rate and order size are higher in case of m-shopping and purchasing products online is more habitual with mobile phones than with computers. (Wang et al., 2015) In this theses the variable is binary, where tablets and mobile phone belong to mobile devices and computers and laptops belong to computer. In this context the device variable refers to which device has been predominantly used in the info search stage.

Figure 3 maps the 9 behavior variables as well as the 5 attribute variables.

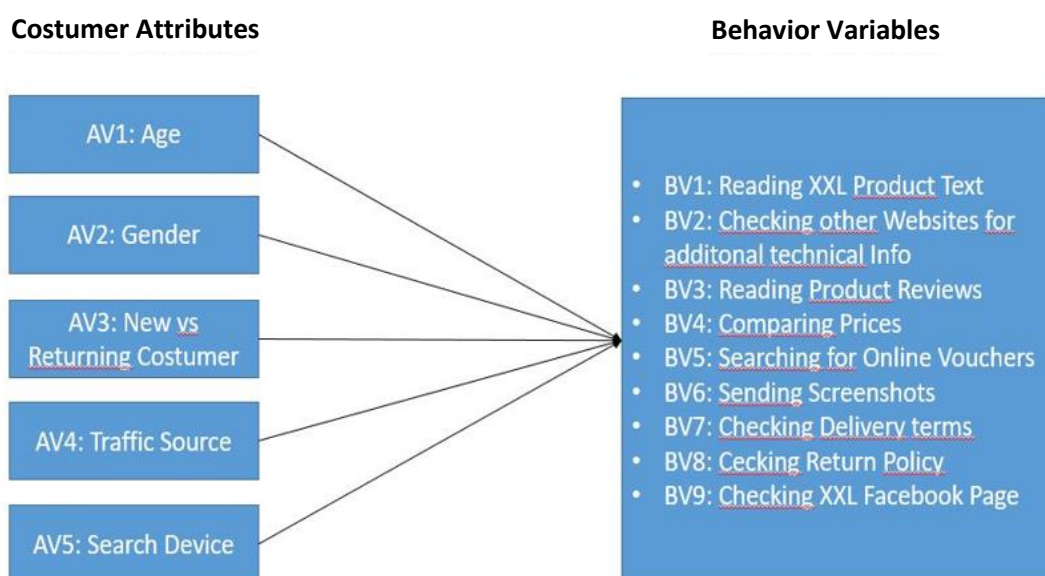


Figure 3: Variable Map

RQ3: Is it possible to generate a typology of shoppers by clustering the respondents?

The final research question aims to identify costumers behaving in a similar way and grouping them in segments. After establishing a number of segments according to the behavior variables it will also be checked if those clusters differ with regards to the 5 attribute variables.

c. Analytical Methods

After outlining the research questions in more detail and introducing the used variables it is finally necessary to define the analytical methods. Obviously the three questions RQ1-RQ3 cannot be addressed by just one single method and a multistage approach must be performed. For this purpose a three-step procedure will be used to get the best and most fitting answers. What also has to be kept in mind when selecting the analytical methods, is the fact that the majority of data is binary, making T-Tests and other Mean-Tests impossible.

RQ1 asks for descriptive data of the 9 behavior variables. RQ2 needs to be addressed with a method which can identify differences in behavior depending on an independent variable, which is in our case one attribute variable. The most apparent method for doing this are cross tables. The upside here is the very easy to interpret results, the downside however is the huge number of cross tables received as we have 9 behavior variables and 5 attribute variables. Still cross tables seem to be a good choice and will be used in this thesis. As an additional check, RQ2 will also be addressed with by regressing the attribute variables on each and every behavioral variable. As the behavior variables are all binary it would not be appropriate to use a linear regression, but rather a logit regression is the best choice. At the end there will be 9 logit regressions, one for each of the behavior variables.

Finally RQ3 needs to be addressed by a cluster method. Here respondents will be clustered according to their performed activities expressed by the behavior variables. These three-step process should use the data in the best possible way and come up with several interesting results.

d. Data Collection and Questionnaire

The data set of this master thesis was generated in collaboration with the Austrian branch of the Scandinavian Sports Retailer XXL. In order to maximize the data quality the survey link was placed right atop of the XXL order confirmation, which is sent to converting costumers of the Austrian domain www.xxlsports.at. Converting costumers in this context refers to consumers, who purchased something. Of course, this meant a certain limitation as only buyers could participate , however there are several upsides

making up for this disadvantage. On the one hand the data observed is actual behavior data, as the survey asked whether specific activities have been performed prior to purchase or not. Due to its integration into the order confirmation the data is as timely as possible on the other hand, avoiding information loss as a result of costumers forgetting their behavior.

A lottery was used as an incentive for participation. Costumers taking part and finishing the survey had the chance of winning a 200 Euro XXL shopping voucher. The lottery was not only shown atop of the questionnaire itself but was part of the link in the order confirmation, too. The survey was initially planned to be active for about 1 month, however was turned offline after about 3 weeks due to good participation. Altogether the time span of study was from 15.5.2018 till 5.6.2018.

The questionnaire, produced by the survey tool www.umfrageonline.com was divided into three pages. After 4 short pre-tests with around 4-8 respondents each, the final version of the questionnaire had in total 9 questions and it took about 3 minutes to answer all of them. Keeping the questions down to a minimum and reducing the time needed to fill out the questionnaire was key for getting as many participants as possible, and was especially important due to the fact that the attention span with mobile phones is very short.

After clicking on the link in the order confirmation directing the costumers to the survey, page number 1 with the XXL logo and the following starting text appeared: *“Sehr geehrter Kunde! GEWINNEN Sie jetzt einen 200 Euro XXL Einkaufsgutschein! Nehmen Sie sich einfach 3 Minuten Zeit, um die folgenden 9 Fragen zum Thema Mobile Shopping zu beantworten und schon nehmen Sie am GEWINNSPIEL teil! Viel Spaß!”* Beside that the first three questions were also placed on page number 1. Question number 1 asked the costumer if it was the first time that he shopped at XXL, referring to the “New vs Returning” variable. Question number 2 wanted to clarify if the order had been finalized by mobile device (smartphone/tablet) or by computer (Laptop/Computer). In question number 3 the costumers were asked how they were directed to the XXL website, giving information about the traffic source. Six nominal variables ranging from newsletter, social media, other websites, leaflet, direct traffic to an open text field made sure that all possible traffic source was covered. After those three starting questions the costumer had to press a button at the end of page 1 in order to proceed to page 2. On page two

the 9 behavioral variables were addressed. Grouped in question batteries of three the 9 items were basically addressed with three questions. Question 4 asked which of the three activities mentioned afterwards were performed by the customer. This question battery consisted out of the variables “Reading Product Text”, “Searching for more Technical Information on Other Websites” and “Reading Product Reviews”. After the first question battery the second one asked, if also the following activities have been performed: “Comparing Prices”, “Searching for Online Vouchers” and “Sending Screenshots”. Eventually question number 6 was question battery three and was formulated like “Finally, how about those activities”. The final three behavior variables “Checking Delivery Terms”, “Checking Return Policy” and “Checking XXL Facebook Page” were integrated here. All of those questions were strictly binary, meaning the only answer options were yes and no. In several pre-tests it was tested if these behavior variables could be grouped together a bit more theme-wise, like for example using one question for the product related items, one for the price related items and one for the company related items and then formulating the questions a bit more specific. However it was finally considered best to assign the variables randomly to the three questions and formulate the questions as open as it was done in the final version. At the end of page two it was asked which device was predominantly used for the 9 activities mentioned. Again customers could either tick predominantly mobile devices (smartphones/tablets) or predominantly computer (laptops/PCs). After question 7 the respondent had to press a button at the end of the page to proceed to the final page. Page three consisted out of 2 final questions. Question 8 was the gender variable and question 9 the age variable. Age was, as earlier noted divided into 3 age groups which were 18-34, 35-54 and 55+. Finally the respondents could write their email addresses into a final text field for notification purposes in case of winning the 200 Euro lottery. It is noteworthy that the whole questionnaire was held in the local language German, for this reason the original questionnaire is attached at the end of this thesis.

4. Results

This part of the thesis will present the results of the study. First the data will be described in more detail, then RQ1 will be addressed with some descriptive statistics. RQ2 will be

treated after that by circling out the most important findings from the various cross tables as well as the 9 logit regressions. Eventually a cluster analysis will be performed in order to get answers on RQ3.

a. Data Summary

Overall 674 respondents opened the link and at least answered one question. Due to the questionnaires short layout only 14 out of those 674 respondents did not finish the survey, what makes a marginal dropout rate of only 2,1%. The dropouts almost only occurred at the end of page 1 or page 2, as 7 dropouts happened after question 3 and 5 after question 7. The remaining 2 dropouts happened on page 3 of the questionnaire. As a result 660 valid respondents were collected, which provides good group depth in every variable especially because most variables were binary.

Out of those 660 participants 71,2% were male and only 28,8% were female resulting to a very men dominated sample. It came as no surprise that more men registered for the lottery as XXL has significantly more male costumers than female ones, a branch specific feature, however the extent of numerical imbalance was in fact surprising. With regards to age group the results are as expected. The heavyweight of participants, namely 56,1% were between 35-54 years old, whereas the age groups 18-34 and 55+ included 31,7% and 12,3%.

After around 9 months in the market one would have guessed a much lower rate of returning costumers than 53,2%. With only 46,8%, less new costumer participated than returning ones, what is a strong sign for a solid customer base already. Of course, the likelihood of returning costumers taking part in such a study could be higher than in case of new costumers, anyway this cannot be validated or declined by the data and it is indeed very surprising that there are more old than new customers in the sample. Looking at the traffic source one can see one dominating channel, which is the newsletter with 39,7%. The rest of traffic sources is pretty equally distributed with 15,8% coming via social media, 17,6% visit xxl.at directly, 12,3% came from the print ad and 8,3% were directed to the webpage from other webpages. Remarkable was also the fact that 57,3% of the respondents made the final order with a mobile device and only 42,7

ordering with computer. This mirrors the rise of m-commerce as already now almost 2 out of 3 costumers order by mobile device. Figure 4 expresses the sample graphically.

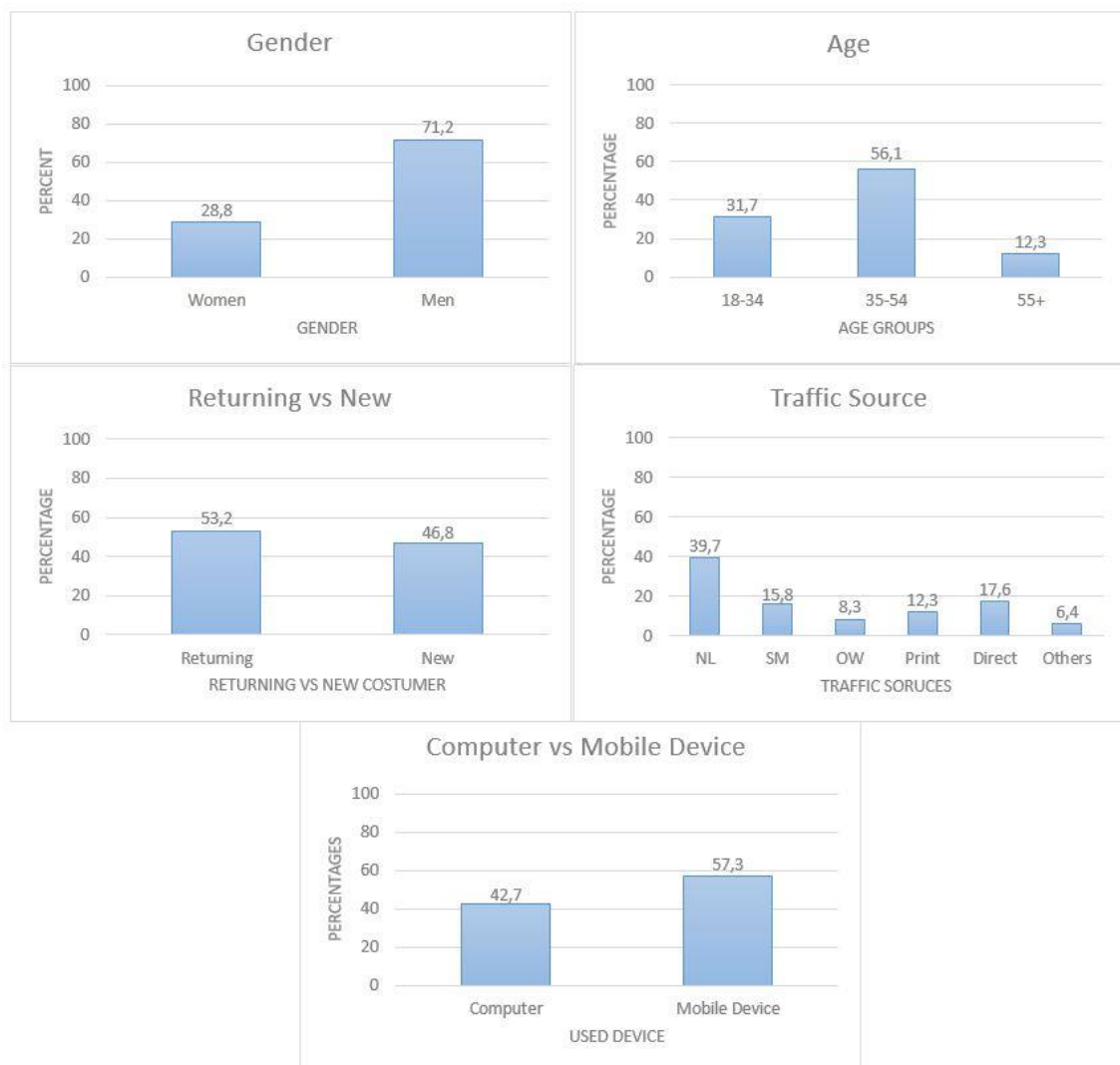


Figure 4: Description of Data Sample

b. The Activity-Level of the 9 Behavior Variables

It is possible to address one of the core interests of this paper with some simple descriptive analysis. What was explored qualitatively by Fuentes et al. (2017) now gets underlined with some quantitative figures and figure 5 depicts the percentages of respondents performing each of the 9 behavior variables. Since all of those are simple yes or no questions the sum of “yes respondents” and “no respondents” equals 660 which is 100% of the sample. 81,4% of the respondents read the XXL product text, ranking it atop of all activities. This clearly reflects how important profound and detailed

product descriptions are in the sporting goods industry. Costumer want to know technical information about the product of interest, not only because of being quite high priced sometimes, but probably also due to their implications on health. Providing an even stronger argument are the 38,2% of people using other websites such as the ones of competitors or brands in order to sourcing additional information. This pretty high percentage could be a result of missing product texts, bad XXL product texts, lack of trust into XXL’s products texts as the retailer is still somewhat new, or simply due to the costumers’ high need and quest for product knowledge. A simple cross table with the two variables “Reading Product Text” and “Searching for more Technical Information on Other Websites” shows that respondents, who did read the XXL product text are significantly more likely to also consult other websites than those who did not read the XXL product text. Figure 6 shows this relationship which has a p-value of 0,02.

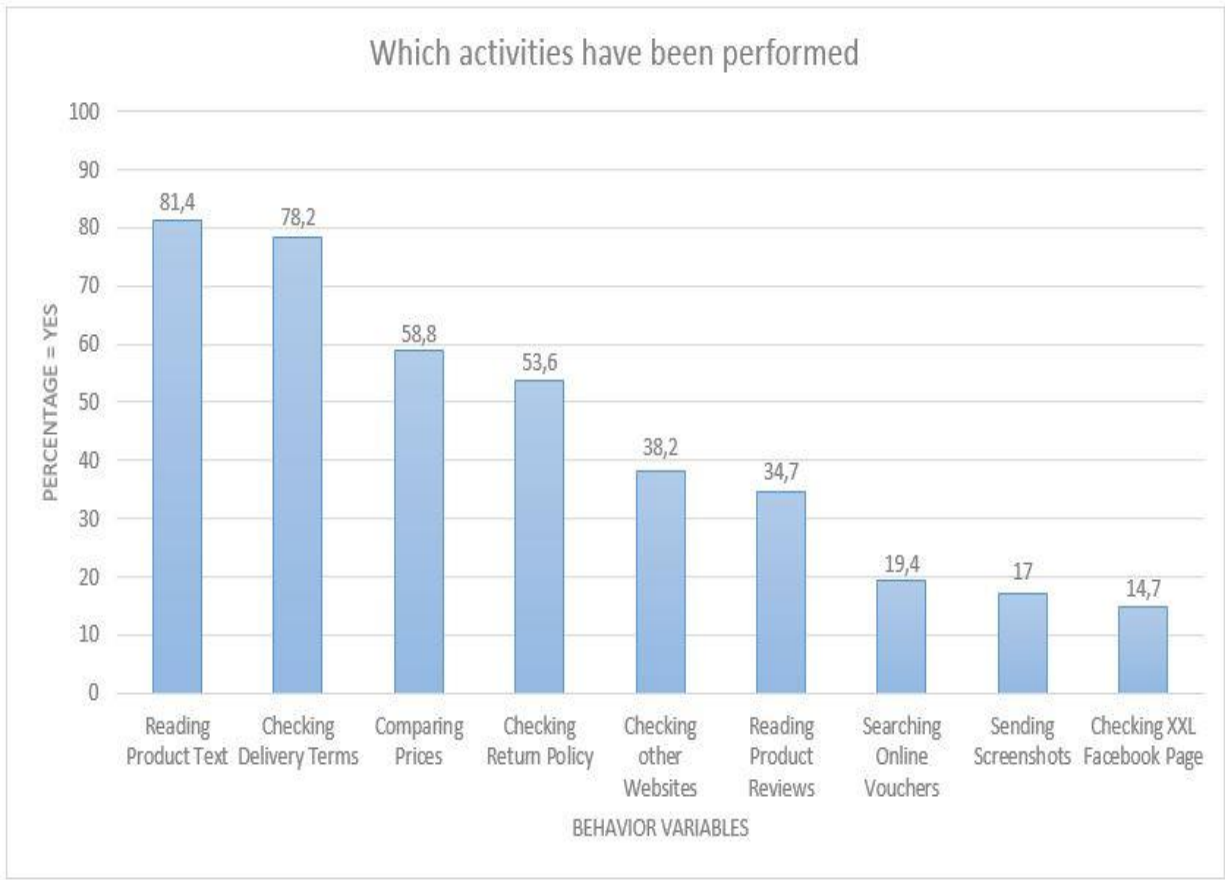


Figure 5: Percentage of Respondents performing certain activities

Kreuztabelle

			Did the costumer search for technical info on other webpages		
			no	yes	Gesamt
Did the costumer read product text at XXL	no	Anzahl	87	36	123
		% innerhalb von Did the costumer read product text at XXL	70,7%	29,3%	100,0%
		Standardisiertes Residuum	1,3	-1,6	
	yes	Anzahl	321	216	537
		% innerhalb von Did the costumer read product text at XXL	59,8%	40,2%	100,0%
		Standardisiertes Residuum	-,6	,8	
Gesamt	Anzahl	408	252	660	
	% innerhalb von Did the costumer read product text at XXL	61,8%	38,2%	100,0%	

Figure 6: Cross Table: Reading prdocut Text vs Searching for more Info on other Websites

Either way the number of 38,2% is highly remarkable especially when considering that XXL also sells lots of cheap and untechnical products. Textiles such as swim shorts, sweatpants or simple T-shirts mostly do not require any in depth information and keeping in mind that lots of costumers are purchasing those kind of cheaper products, makes 1 out of 3 respondents consulting other webpages a huge number.

Product reviews seem to be very important, too. With 34,7% of respondents actively searching for customer experiences, product reviews are very commonly used to get company independent feedback. In absolute numbers for 229 respondents it was worth the additional effort of visiting other webpages in order to get some customer reviews. This is an undoubtable sign of how important customer opinion and customer reviews are. A correlation table between all the 9 behavior variables shows a high significant correlation of 0,515 between the two variables "Searching for more Technical Information on Other Websites" and "Reading product Reviews" which indicates that lots of people who visited other webpages for more product information did this also for reading product reviews.

One of the main interest of this whole study was the extent to which costumers perform price comparisons. It turns out that 58,8% of respondents made use of the informational power the internet provides, by searching for the cheapest possible price. Of course, homo oeconomicus theory would let us expect a much higher percentage, 58,8% however is still a pretty high number. Where 386 respondents can be counted price-

sensitive, 274 can be assumed to be not price sensitive. A set of 8 cross tables shows that there are major differences between those two types of costumers. Price sensitive costumers are significantly more likely to “Search for more technical infos on other websites”, “Search for product reviews”, “Search for onlineshop vouchers”, “Check the delivery terms” and “Check the return policy”. This clearly indicates that price sensitive costumers perform significantly more activities than price insensitive ones, as not a single behavior variable shows a higher activity for price insensitive costumers than for price sensitive ones. Putting this very blunt: Those, who have the money can afford to be more careless when mobile shopping and may have also less time to perform a big number of mobile shopping activites.

Another way of saving money is to use online vouchers. 19,4% skimmed the internet for online vouchers. The Correlation coefficient between the two variables “Comparing prices” and “Searching for onlineshop vouchers” is 0,234 and in total 105 costumers can be counted ultra-price-sensitive as they performed both activities. In other words about 1 respondent out of 6 compared prices and also checked for onlineshop vouchers and made use of the internet’s price comparison power.

The two activities least performed are “Sending screenshots” with 17% and “Visiting the XXL Facebook page” with 14,7%. This might seem minor at first sight, however out of 660 respondents 112 sent a screenshot to a friend and that seems not at all so little. What stands out here is the fact that there is a significant correlation between those two “social” variables with a coefficient of 0,314. This means that those who send screenshots also more likely visit the XXL Facebook page.

What remains are the two variables “Checking delivery terms” and “Checking return policy” with 78,8% and 53,6% respectively. Again, those who checked the deliver terms are much more likely to check the return policy with a correlation coefficient of 0,436. It comes not really as a surprise that the number of people studying the deliver terms before ordering is that high, but the high rate of respondents having a look at the return policy is therefore even more interesting. Every second person running an order already thinks about returning at least one of the items at the same time.

To conclude this subchapter the three most important findings are summarized:

1. More than half of the respondents checked where they get the best price for a specific product. These 58,8% price sensitive costumers at the same time much

more likely “Searched for more technical info on other websites”, “Reading product reviews”, “Searched for onlineshop vouchers”, “Checked the delivery terms” and “Checked the return policy” than the 42,2%, who did not run a price check.

2. More than half of the costumers checked the return rate pre-order.
3. About 1 out of 3 costumers searched for additional product information either on other websites or via product reviews.

c. Differences in Behavior dependent on 5 Attribute Variables

In this section of the paper numerous cross tables will be utilized to address research question number 2 *RQ2: Are there differences in mobile shopper's behavioral patterns between gender, age groups, traffic sources, New vs Returning Costumers and used Device*. Matching each of the 5 costumer attribute variables with each of the 9 behavior variables results in 45 cross tables. The Paerson Chi-squared is used to check whether a cross table is significant or not.

Before starting to analyze our 5 costumer attribute variables one by one the used figures have to be explained a bit more in detail. For each costumer attribute variable there will be one summarizing figure which is derived from 9 cross tables. These 9 cross tables are the result of matching the 9 behavior variable with one specific costumer attribute variable. This figure will not only make very clear which behavioral variables significantly vary between various expression of the covered attribute variables, but also will show which group performs the behavior more often. Eventually it even manifests the percentage point difference between the average level of activity across all respondents and the various groups themselves. Consequently the 5 costumer attributes will be discussed now.

Gender:

9 cross tables testing the costumer attribute variable gender against 9 behavior variables are performed. As an example the cross table between “gender” and one behavior variable “Sending a screenshot” is depicted in figure 7.

Gender of respondent * Did the costumer made a screenshot to send to a friend

Kreuztabelle					
			Did the costumer made a screenshot to send to a friend		
			no	yes	Gesamt
Gender of respondent	Female	Anzahl	144	46	190
		% innerhalb von Gender of respondent	75,8%	24,2%	100,0%
		Standardisiertes Residuum	-1,1	2,4	
	Male	Anzahl	404	66	470
		% innerhalb von Gender of respondent	86,0%	14,0%	100,0%
		Standardisiertes Residuum	,7	-1,5	
Gesamt	Anzahl	548	112	660	
	% innerhalb von Gender of respondent	83,0%	17,0%	100,0%	

Chi-Quadrat-Tests

	Wert	df	Asymptotische Signifikanz (zweiseitig)	Exakte Signifikanz (2-seitig)	Exakte Signifikanz (1-seitig)
Chi-Quadrat nach Pearson	9,928 ^a	1	,002		
Kontinuitätskorrektur ^b	9,220	1	,002		
Likelihood-Quotient	9,416	1	,002		
Exakter Test nach Fisher				,003	,001
Zusammenhang linear-mit-linear	9,913	1	,002		
Anzahl der gültigen Fälle	660				

Figure 7: Gender vs Sending a Screenshot

First and foremost the Chi-squared is significant pointing out a difference between men and women. Further we see that on average 17% send a screenshot, whereas in case of women the average is 24,2% and in case of men 14%. This leads us to figure 8.



Figure 8: Gender vs Sending Screenshot

Repeating this procedure with the remaining 8 behavior variables results in figure 9. Out of the 9 behavior variables we can identify 3 to be significant, as the two bars for women and men are in colour in case of "Searching for additional information on other websites", "Sending screenshots" and "Checking Return Policy". For exemplary reason let us once again consider "Sending screenshots" a bit more closely. We see that women are sending significantly more screenshots than man do. The y-axis of the diagram

presents the percentage deviation from one sex compared to the percentage of all genders. In this case 17% of respondents sent a screenshot, where the percentage of women sending a screenshot was significantly higher with 24,2% as the absolute percentage deviation between the group percentage and the women percentage of sending a screenshot is 7,2%. On the other hand men send significantly less screenshots as only 17-3=14% said that they had sent a screenshot prior to purchase.

If we now sum the two percentage deviations between men and women we get the absolute percentage point difference between men and women who sent a screenshot, as $7,2+3=10,2\%$. Therefore 24,2 % of the women sent a screenshot, 17% of all respondents (men + women) sent a screenshot and 14% of men sent one. Thus the figures point out the percentage point deviation between the specific segments as well as the deviation between each segment and the average of all segments. This mechanics apply to all future diagrams in this chapter.



Figure 9: Differences between gender in 9 behavior variables

It turns out that there are also significant differences with regards to “Searching for more technical information on other websites” and “Checking return policy”. For the former variable the absolute percentage difference between men and women is 10% and men are much more likely to check other websites for additional information. The latter variable stresses that women are more likely checking the return policy. For all the other variables there are no significant differences as figure 9 depicts. The three significant variables make perfectly sense and support the common believe that men are more technical focused and women are more social shoppers. Equally the results with regards to checking return policy are no further surprising, as women tend to return more.

Age:

Speaking about age, there are 4 significant behavior variables. The younger the costumers the more likely it is that online vouchers are searched, screenshots are sent, the XXL Facebook page is visited and the return policy is checked. The results clearly indicate a big difference between age groups with regards to social shopping as both social shopping variables are much higher in case of younger respondents. It is noteworthy that 30,6% of the respondents aged between 18-34 sent a screenshot pre-purchase. Returns are also majorly playing a role for younger customers as the percentage of checking the return policy is 60,8% for the first age group. Between the other two age groups the percentage is almost the same, meaning that there is a somewhat stepwise change in the attitude towards returns.

Eventually the younger the respondents the more likely online vouchers get used, as about 1 out of 4 aged 18-34 actively searches for a coupon. In all of the 4 significant variables the decrease is monotonously with regards to age, therefore the rough age grouping appears to not provide that much of an information loss. Of course, it can be criticized that particularly within age group 18-34 pretty big deviations in behavior could occur between 18-25 year old and 26-34 year old, however the study suggests that these differences most probably are not influencing the outcome.

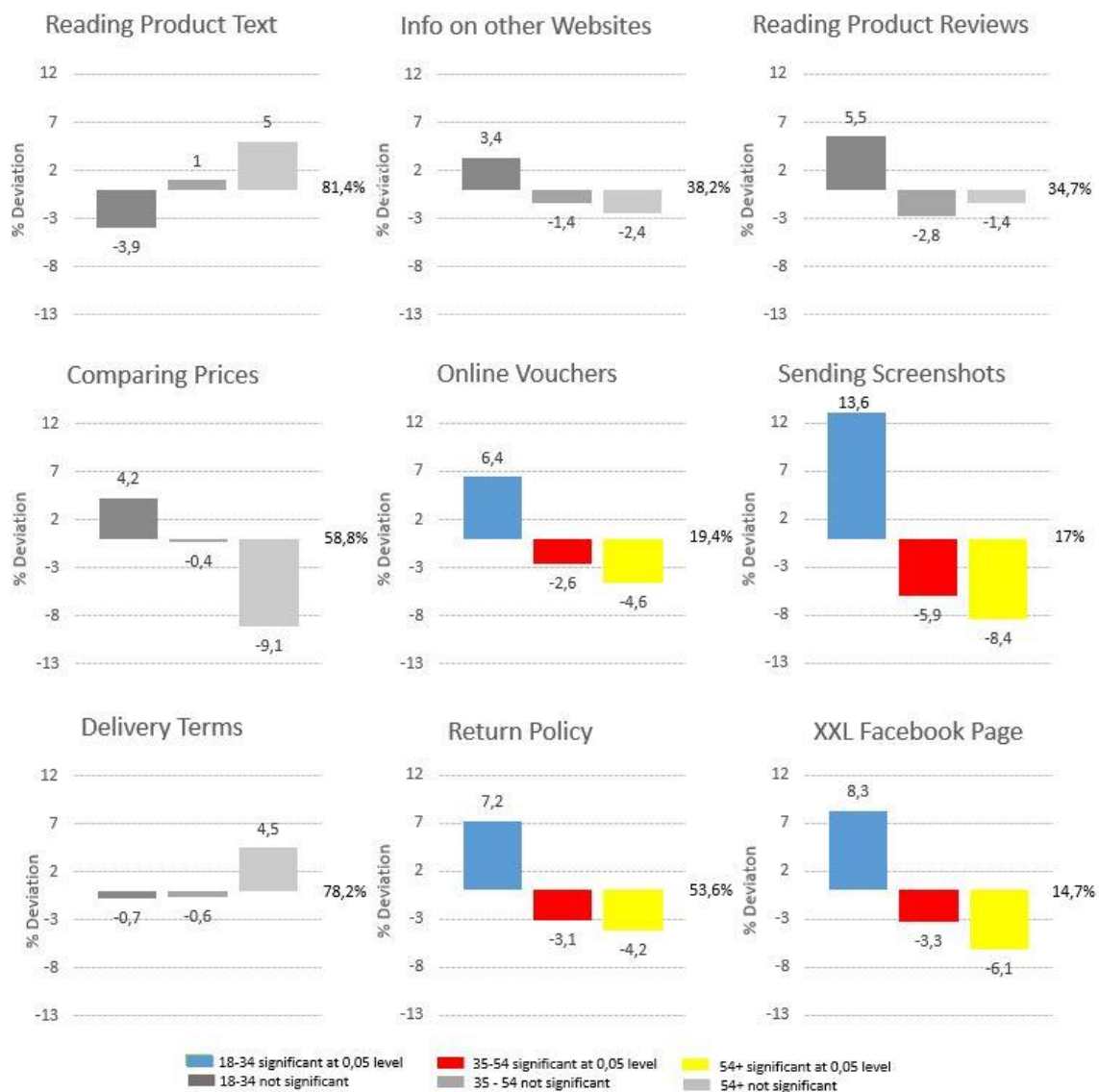


Figure 10: Differences between age groups in 9 behavior variables

Returning vs New Costumers:

Comparing returning with new costumers leads to 3 significant variables and one borderline-significant variable. The biggest and most interesting difference occurs in case of price comparison. 65% of new customers check prices whereas only 53,3% of returning ones do. Most probably as a manifestation of missing trust new customers are more suspicious about XXL's prices.

Supportive of this missing trust theory is also the significance in the product review variable and the borderline significance of the "Searching for more technical info on other webpages" variable (0,054). New customers checking the XXL Facebook page more often comes not as a big surprise. Other than that no significant discrepancies in

behavior are reported and almost the same percentage of respondents checks the delivery terms as well as the return policy.

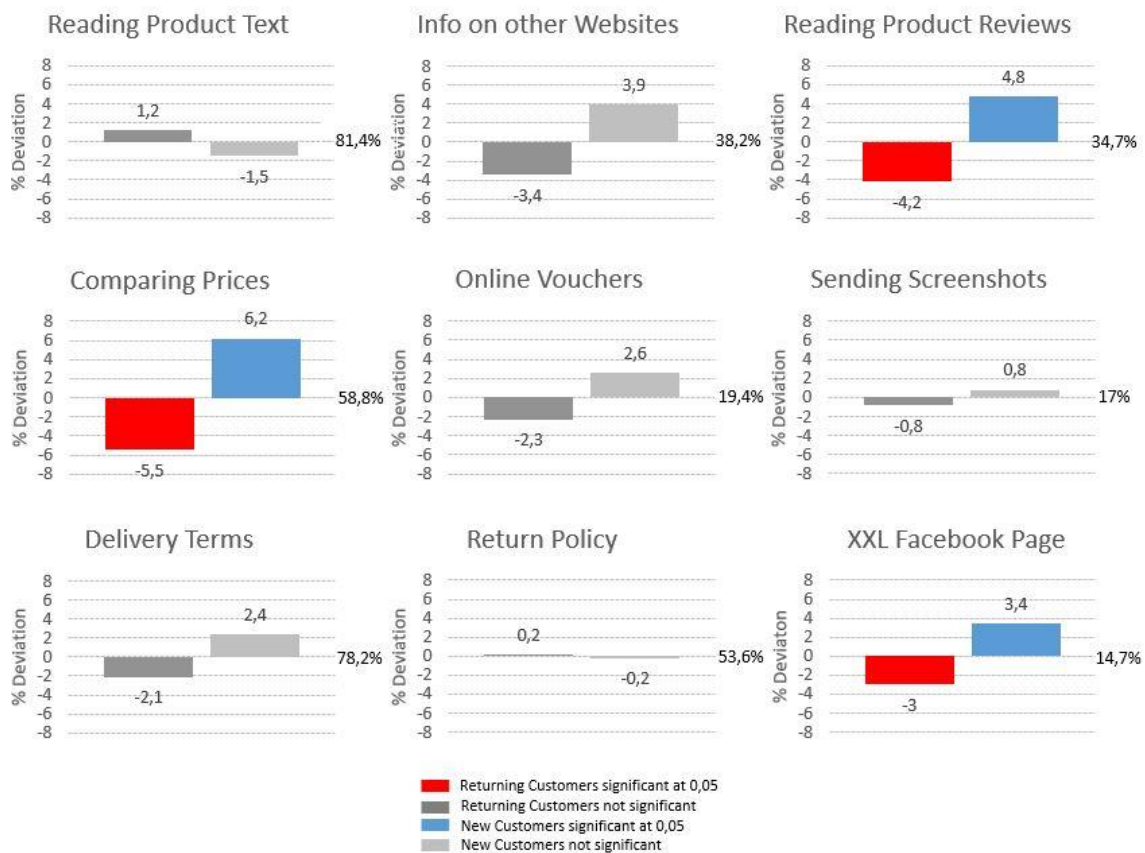


Figure 11: Differences between Returning and New Costumers in 9 behavior variables

Traffic Source:

Considering the type of traffic source results in the most significant differences in behavior. Beside Newsletter the other 5 traffic sources will shortly be specified again. "Facebook Ads" traffic refers to both paid ads as well as organic facebook ads, however approximately 95% of traffic from social media is probably from paid advertisements. Due to this minor share of organic traffic the social traffic variable can be mainly regarded as being originated of Facebook advertisements. Traffic Source "Other websites" can be equated with display advertisements or simply with respondents searching for a product on another website and then buying at the XXL site due to better prices. "Print ads" stand for the XXL newspaper leaflet. "Direct traffic" collects all customers landing on the XXL webpage without prior ads, meaning those customers just browsed on the XXL site or had a certain product in mind without

receiving an advertisement of this product before. Eventually “others” just was an open text field to make notes possible, however all the traffic should actually be covered by the first 5 traffic sources, thus traffic source 6 will be excluded from interpretation.

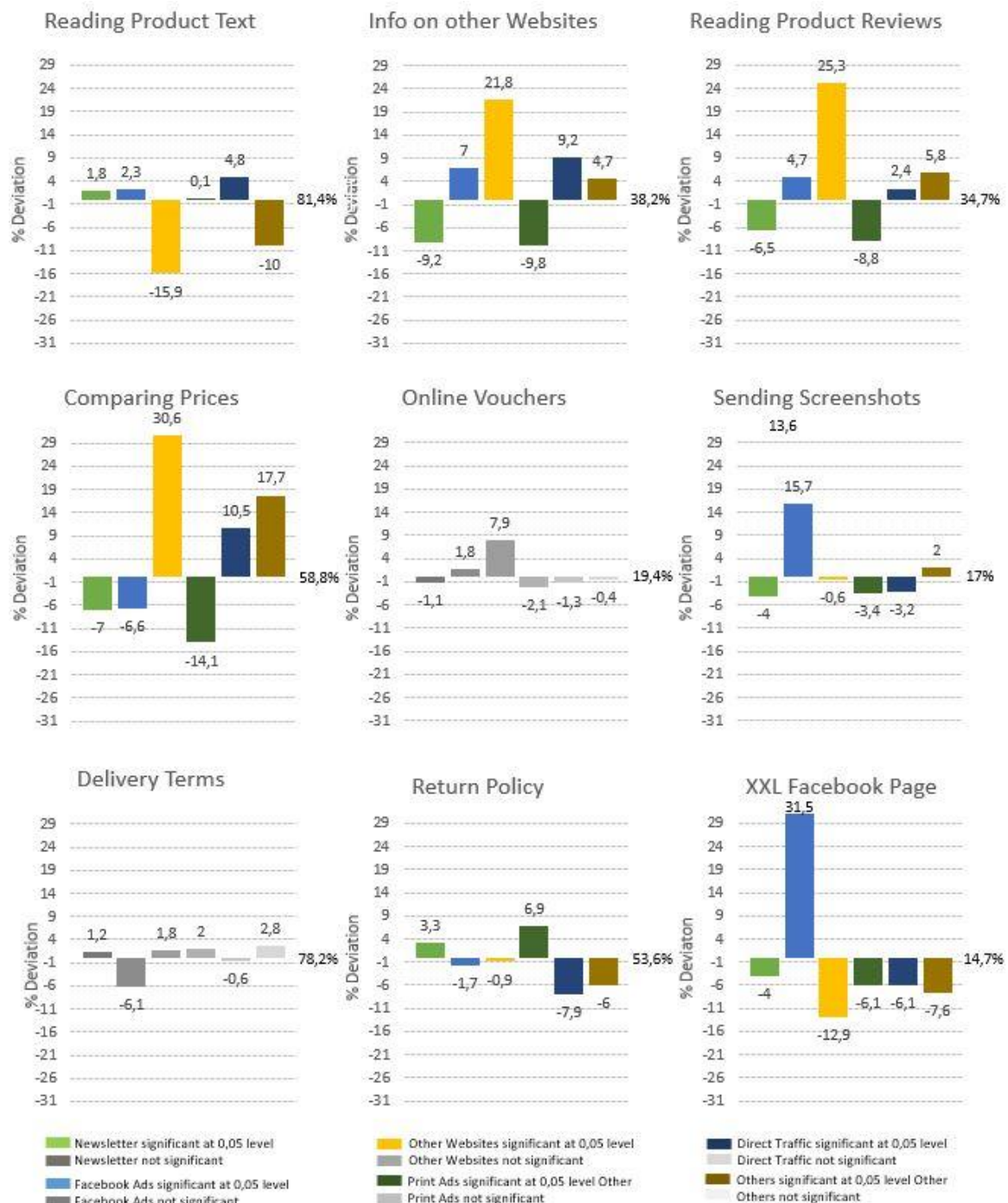


Figure 12: Differences between traffic sources in 9 behavior variables

Considering the variable product text makes obvious that respondents arriving from other websites are much less likely reading the XXL product text compared to all other traffic sources. This is at first sight a bit unexpected, however including the results for

behavior variables “Info on other websites”, “Reading product reviews” and “comparing prices” paints a very easy to interpret picture. Respondents, who come from other webpages, either via display ads or just from competitors webpages inform themselves on other websites about technical information and about customer reviews and after checking prices decide to buy at XXL, because there they get the best price. The absolute percentage deviation for those three variables are 21,8%, 25,3% and 30,6% above the average percentages. This for example means that 89,4% of respondents who come from other webpages checked the prices, what is impressive 9 out of 10. This has a remarkable implication: Being cheaper than competitors makes a lot of sense as you can literally steal competitors’ sales. If for example a competitor sends a newsletter with one product, which is actually cheaper at XXL, XXL can profit a lot from this newsletter despite being from a competitor actually.

Other key findings are that those who come via social advertisements are very much more likely to send screenshots or to visit the XXL Facebook page. In case of the former variable the percentage of people coming via social media is almost double the average percentage and in case of visiting the XXL Facebook page it is even more than double.

Overall the differences between various traffic sources are undeniable and it could be worth to study the behavior differences between the various traffic sources in more detail. It should be noted however that post-study it would have been better to split up the variable “Other websites” in two or even three variables. Those variables could have been “Display ads”, “Competitors” and “Price comparison pages”.

Device predominantly used:

Comparing the behavior differences between respondents predominantly using computers in the shopping process to those who rely more on mobile devices brings less significant results than maybe expected. Both groups read the XXL product text, compare prices, check for online vouchers, check delivery terms and check the return policy to similar extents. With a p-value of 0,07 comparing prices can be counted borderline significant and that would mean that computer users are more often comparing prices than mobile shoppers.

Shifting our focus to the significant variables we find that mobile users send more screenshots and visit the Facebook page more likely. The former result is all but surprising since most of screenshots will be sent with apps such as WhatsApp or Snapchat, which in turn are almost only used on mobile phones. For this matter a roughly 10% difference between computer and mobile users is actually less difference than one could expect. Even the difference in visiting XXL Facebook page is bigger between those two groups. Only 6,8% of the computer users visit the XXL Facebook page, what serves as apparent sign that also Facebook is a mobile device tool. With 19,1% of mobile users visiting the Facebook page it is almost 3 times more likely that a mobile device user visits Facebook than a computer user. Therefore it is much more common for computer users to source additional technical information on other websites than it is for mobile users.

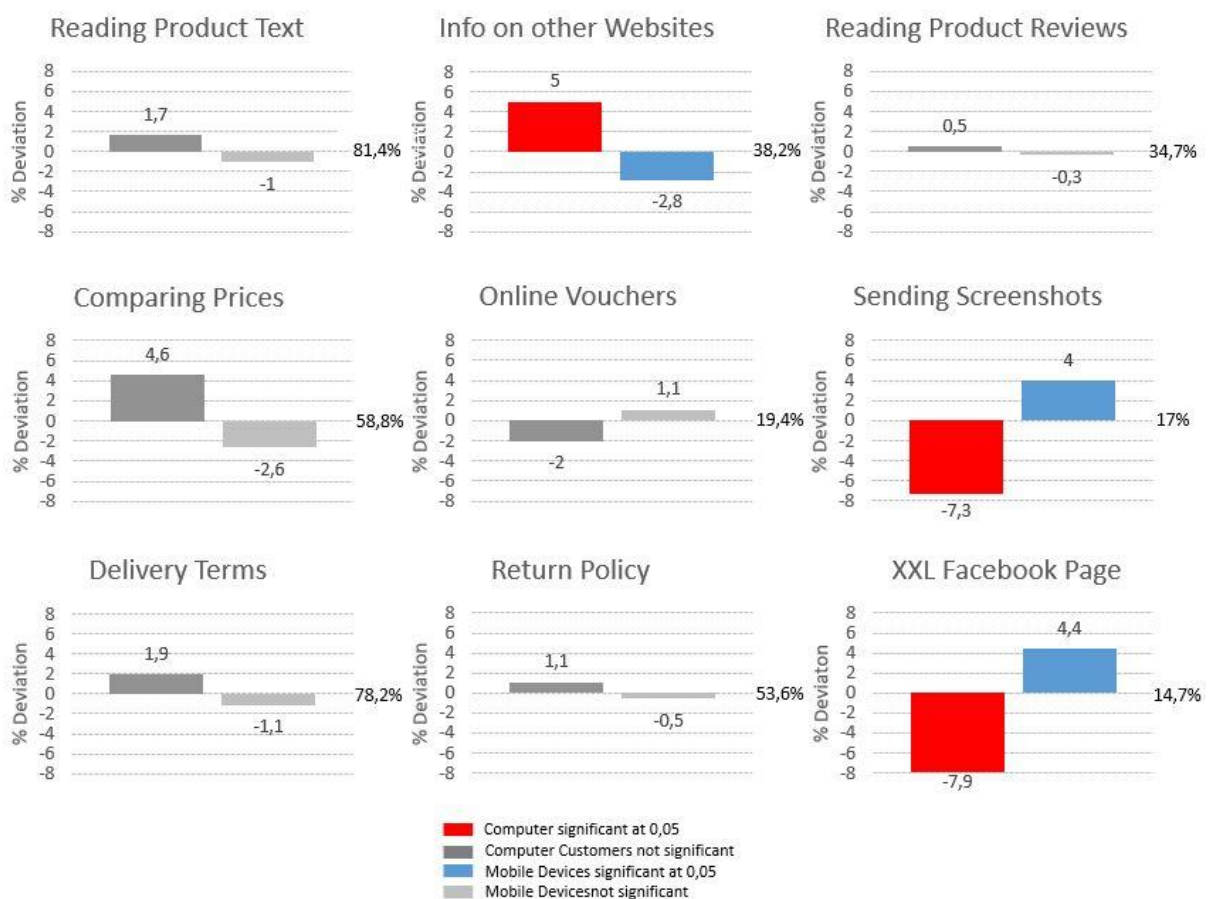


Figure 13: Differences between devices in 9 behavior variables

To sum up all the crosstables the most important findings will be stated:

1. Men are more technically focused and it is therefore much more likely that they

visit other websites to source additional Information. For women a second opinion from a friend is more important than for men, as they significantly send more screenshots. Further is the return policy more important for women than for men.

2. Young costumers more likely search for online vouchers, check the return policy, send screenshots and check the XXL Facebook page.
3. New customers are more suspicious of the XXL concept and therefore more likely check prices, read product reviews and visit the XXL Facebook page.
4. Respondents from other websites are much more likely to search for additional information on other websites, read product reviews and compare prices.

d. The explanatory Power of the Costumer Attribute Variables on the Behavior Variables.

After chapter 4c answers research question RQ2 by describing how the various behavior variables vary in dependence on 5 attribute variables, it makes sense to check how much of the variance in those 9 behavior variables can be explained by the 5 selected attribute variables. Put differently: Chapter 4c focused on the differences in behavior between certain attribute elements such as gender, age, new vs returning costumers, traffic source and used device. Chapter 4d now asks how powerful these 5 attribute variables are for explaining the variance in the 9 behavior variables.

For this purpose 9 regressions are performed, one for each behavior variable. As all the dependent variables are binary, a logistic regression is inevitable and some logistic-specific characteristics have to be considered.

Firstly, with a binary as dependent variable, logistic regressions have the probability of an event to happen as dependent variable. In our case this means our dependent variable is the probability that a certain mobile shopping behavior will be performed.

Secondly, it is from utmost importance to define some reference categories for each independent variables, meaning for each attribute variable. This reference categories consequently serve as base category, against which all other variable expressions will be tested.

Eventually 9 logit regressions with the following form will be tested, differentiating only in the dependent variable:

$$P(y=1)=1/ 1+ e^{(\beta_0+B_1NewCostumer+\beta_2Gender+\beta_3Age1+\beta_4Age2+\beta_5Device+ \beta_6Traffic1+ \beta_7Traffic2+ \beta_8Traffic3+ \beta_9Traffic4+ \beta_{10}Traffic5)}$$

$P(y=1)$ refers to the probability of a behavior to be performed. If we for example insert “Comparing prices” as dependent variable $P(y=1)$ measures the probability of a respondent performing a price check pre-purchase.

The reference categories for all the attribute variables are:

Gender: Reference group = women

Age: Reference group = 18-34 years

New vs returning costumers: Reference group = Returning Costumers

Traffic Source: Reference group = Newsletter

Device: Reference group = Computer

If the respondent is an 18-34 year old female, who has already purchased at XXL before, using the computer and coming via the newsletter then all dummy variables equal zero. If now one of the attributes changes, one of the variables is different from zero and the dummy variable will change $P(y=1)$ by its parameter, compared to the reference category.

Table 1 summarizes the results of 9 logit regressions. For every regression the same set of independent variables has been used. In order to report the quality of the model the Nagelkerke R^2 is used. To provide an acceptable additional explanation a model should have a Nagelkerke R^2 of more than 0,2. (Backhaus et al., 2008) The values of Block 0 and Block 1 give the percentages of cases which are correctly classified according to the model. Here it is important to mention that Block 0 does not include any independent variables, whereas Block 1 includes our independent 5 variables. In easy words: The bigger the difference between the percentage of Block 0 and the percentage of Block 1 the better is our model as it brings additional predicative power. (Backhaus, 2008) The table reports the odds of each independent variable. An odd above 1 expresses a higher likelihood for performing an activity compared to the reference category. An odd smaller than 1 expresses a smaller likelihood than the reference group.

Dependent Variable	Gender	Age1	Age2	NewCos	Device	Traffic1	Traffic2	Traffic3	Traffic4	Traffic5	Nagelkerke R	Block 0	Block 1
Reading product Text	0,80	1,36	1,84	1,02	0,87	1,14	0,38*	0,83	0,78	0,51	0,043	81,4	81,4
Other Websites*	1,83*	0,83	0,81	1,09	0,66*	2,21*	3,87*	0,99	2,22*	2,01	0,93	61,8	64,4
Reading Reviews*	1,34	0,74	0,82	1,22	0,92	1,56	3,46*	0,86	1,42	1,59	0,061	65,3	67,1
Comparing Prices*	1,17	0,88	0,59	1,34	0,70*	0,95	6,30*	0,67	1,87*	2,63*	0,115	58,5	62,2
Searching Vouchers	1,09	0,59*	0,51	1,36	1,14	0,94	1,29	0,87	0,85	0,80	0,029	80,6	80,6
Sending Screenshots*	0,60*	0,32*	0,31*	0,43	1,88*	2,39*	1,04	1,18	0,93	1,17	0,152	83	83,8
Delivery Terms	0,90	0,98	1,24	1,36	0,89	0,64	0,85	0,91	0,82	0,91	0,015	78,2	78,2
Return Policy*	0,71	0,63*	0,56*	1,03	0,89	0,72	0,72	1,13	0,57*	0,59	0,038	53,6	59,2
XXL Facebook Page*	1,00	0,47*	0,45	2,08*	2,32*	4,71*	0,08*	0,63	0,60	0,33	0,267	85,3	86,1
*Significant at 0,05 level													

Table 1: Odds of 9 logit regressions

Traffic1 = Facebook Ads; Traffic2 = Other Websites; Traffic3 = Print Ads; Traffic4 = Direct Traffic; Traffic5 = Others

6 out of 9 models are significant at 0,05 level, which are “Other Websites”, “Reading Product Reviews”, “Comparing Prices”, “Sending Screenshots”, “Return Policy” and “XXL Facebook Page”. For all those dependent behavior variables our models have explanatory value. Shifting our focus on the other model specific indicators however quickly shows that the explanatory power is comparably small. The Nagelkerke R² is only above the 0,2 threshold in case of “XXL Facebook Page” with the second closest variable being “Sending Screenshots” at 0,152. Comparing the Block 0 values with the Block 1 values also expresses the relatively small amount of additional explanatory power our independent variables have. On the other hand the values of Block 1 are above 0,6 in all but one case, so our model can predict the outcome of the behavior variables in pretty good manner. Besides that, there are various significant coefficients in most of the regressions which means our independent variables do indeed make a difference.

For behavior variable number 2 “Searching for more technical info on other websites” our results show 5 significant variables. The biggest magnitude has Traffic2 which means compared to respondents landing on the XXL website via the newsletter (reference group) the ones who come via other websites are 3,87 times more likely to also consult other websites for additional product texts. The same holds also for direct traffic and for social traffic compared to newsletter traffic, and men are 1,83 times more likely to do so than women. Besides that, mobile users are significantly less likely to check other websites than computer users as the odd for device is 0,66 which is clearly below 1.

With regards to “Reading product reviews” there is only one significant difference coming from independent variable traffic2. Respondents coming via other websites are 3,46 times more likely to read product reviews in the web.

Comparing prices gives us more significant variables. On the one hand computer users (reference group) are far more likely comparing prices than mobile users and on the other hand 3 out of 5 traffic sources have a higher likelihood of performing a price comparison than newsletter traffic. Respondents coming from other websites are the ones, who seem to be the most price sensitive as the odd is 6,3.

Online vouchers are searched far more often by 18-34 year old costumers than by other age groups. Other than that there are no further significant variables with regards to this dependent variable. Speaking about "Sending screenshots" there is a significant difference in age and gender. It is rather female customers who use screenshots as a way of communication while shopping and equally it is rather 18-34 year old costumers than those older than 34. Likewise it is predominantly mobile users and users who land on the XXL webpage via social media.

Older age groups are significantly less likely to check the return policy and that is also valid for direct traffic compared to newsletter traffic.

Eventually our best model relates to the behavior variable "Visiting XXL Facebook page". Older costumers are less likely to perform this activity, whereas new customers as well as mobile shoppers are more likely to visit the company's Facebook page. Again there are some differences with regards to traffic source.

Overall the 9 regressions confirm the findings of our cross tables in chapter 4c. Results such as women are more likely to send screenshots and shop more socially whereas men have a higher interest in technical information, or mobile shoppers are more likely to visit the XXL Facebook page in contrast to computer shoppers, who are therefore more often performing price checks have been coincident by using both methods. Of course the additional variance explained by our independent variables is not as high as we would wish for, however it is very obvious that there are plenty of significant differences within all attribute variables.

e. Clustering the Respondents according to their Behavior

The final step of this thesis should address research question 3 RQ3: *Is it possible to generate a typology of shoppers by clustering the respondents?*. The fitting method for doing exactly that is the so called cluster analysis, referring to a technique which can be

used to group respondents into segments based on commonalities. (Craig et al., 2005; Backhaus et al., 2008) In this thesis respondents are clustered according to their behavior, thus our cluster variables will be the 9 behavior variables. In the end this will give us the chance to circle out some segments and analyze their behavior as well as their attribute expressions.

Various model specifications are possible in terms of the cluster analysis and the most common methods will be used in this thesis. First and foremost a hierarchical clustering will be performed, which links together the most similar objects and continues doing so until there is only one big cluster remaining. Secondly a combination of the Ward-linkage method and the binary squared Euclidian distance will be put in place. The reason for selecting Ward is mainly due to its characteristics of generating clusters from similar size, and the most paired measure for the Ward-linkage method is the squared Euclidean distance. Since all the behavior variables are binary no standardization is necessary.

The dendrogram suggests either a 3, 4 or a 5 cluster solution. According to the agglomeration plot in figure 14 a 3 cluster solution would technically make the most sense.

Agglomeration Schedule						
Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
652	4	17	619.430	640	635	655
653	6	7	650.876	650	500	657
654	1	2	682.849	648	651	656
655	3	4	716.770	646	652	658
656	1	12	762.097	654	644	659
657	6	8	813.285	653	649	658
658	3	6	905.441	655	657	659
659	1	3	1121.274	656	658	0

Figure 14: Agglomeration Plot Ward Linkage

Due to interpretational reasons however, a 5 cluster solution is favored, as this leads to some highly interesting insights which would be lost in case of a 3 cluster solution. It must be noted here that the clustering method usually does not result in one correct clustering solution but rather recommends several options. After testing a 3 segment, a 4 segment and a 5 segment approach the 5 segment approach has been selected due to the reasons mentioned above.

Thanks to our good amount of respondents there are enough costumers in each cluster, despite an uneven distribution across the segments. In each of the clusters 1-3 there are roughly 25% of respondents, clusters 4 and 5 are significantly smaller with only 11,8%

and 7,6% of respondents. This means group 5 is our smallest group consisting out of 50 costumers. Figure 15 combines the results of 9 cross tables and depicts the percentage of respondents performing a mobile shopping behavior for each cluster. Where the percentage of respondents reading the XXL product text is very evenly distributed across all clusters the other 8 behavior variables show big differences between clusters.

Cluster 1 can be considered very product focused as they not only to a big part read the products text, but also visit other webpages for seeking additional technical information and reading product reviews. Also do they check prices with a percentage of 82,3%, which is the second highest percentage when comparing the 5 clusters.

Cluster 2 consists out of respondents with the lowest overall activity. In 5 behavior variables it shows the lowest, and in the remaining 3 the second lowest percentage of respondents performing a mobile shopping activity. Only in case “Reading product text” and “Checking delivery terms” more than half of the respondents ticked the yes box. It is fair to say that the shoppers in cluster 2 are fast shoppers, who do not care much about price, social opinion or too detailed product information



Figure 15: Percentage of cluster- members performing a mobile shopping behavior

The most remarkable feature about cluster 3 is its high activity in the variable “Checking return policy”. With 91,8% of group members having a look at the return conditions it is far above the average of 53,6%. Similarly the percentage of respondents checking the delivery terms is very high, adding to the impression that cluster 3 makes use of the return culture. For the other 7 behavior variables cluster 3 shows very low activity.

Cluster 4 are the social shoppers. In both “Sending screenshot” and “Visiting the XXL Facebook Page” the group has by a huge extent the highest percentages, with 62,8% in case of the former variable and 60,3% in case of the latter. This is particularly huge when compared to the averages of all clusters together, which is 17% and 14,7%. Very surprisingly members of the cluster do not read product reviews very often and also price checks and the return policy are from minor importance.

Finally there is cluster 5, which has the highest percentage in 6 out of 9 variables. Every single member conducted a price check and searched for an online voucher, expressing an unmatched degree of price sensitivity.

Besides analyzing the clusters in terms of their activity level in the 9 behavior variables, a look at the attribute variables even deepens the understanding of the 5 clusters.

Again 5 cross tables have been conducted, pairing attribute variables and Ward clusters. All of the following cross tables are significant at 0,05 level. As our data sample included an unbalanced distribution between the various expressions of each attribute variable, the percentage sums were used to balance the data and make them more graphically sound and better to interpret. To clarify this, take gender as example. Table 2 shows the cross table combining gender and Ward-clusters. Percentages are summed line wise, which means with regards to gender. It is already stated earlier that there are many more male respondents than female ones, resulting in a somewhat unbalanced sample. To artificially balance the sample the column percentages are normalized to equal 100% in order to make up for differences in respondent size between the 5 Ward-clusters. This step makes it possible to interpret the data as if there were equal numbers of respondents in each ward group and as if there were an equal amount of male and female respondents. Table 3 shows the normalization process. In case of cluster 1 this means that the line percentages of the cross table are summed up in order to calculate the relative share of male and female respondents in

cluster 1: 20,5% + 30,2% = 50,7% → 20,5 / 50,7 = 40% & 30,2 / 50,7 = 60% .

This procedure is conducted for each of the 5 attribute variables “Gender”, “Age”, “NewsReturning”, “SearchDevice” and “TrafficSource” leading to figure 16.

Gender of respondent * Ward Method			Kreuztabelle					
			Ward Method					
			1	2	3	4	5	Gesamt
Gender of respondent	Female	Anzahl	39	50	54	31	16	190
		% innerhalb von Gender of respondent	20,5%	26,3%	28,4%	16,3%	8,4%	100,0%
	Male	Anzahl	142	143	104	47	34	470
		% innerhalb von Gender of respondent	30,2%	30,4%	22,1%	10,0%	7,2%	100,0%
Gesamt		Anzahl	181	193	158	78	50	660
		% innerhalb von Gender of respondent	27,4%	29,2%	23,9%	11,8%	7,6%	100,0%

Table 2: Gender against Ward-Clusters

Gender	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Women	20,5	26,3	28,4	16,3	8,4
Men	30,2	30,4	22,1	10	7,2
	50,7	56,7	50,5	26,3	15,6
Women	40%	46%	56%	62%	54%
Men	60%	54%	44%	38%	46%

Table 3: Normalization of column to 100%

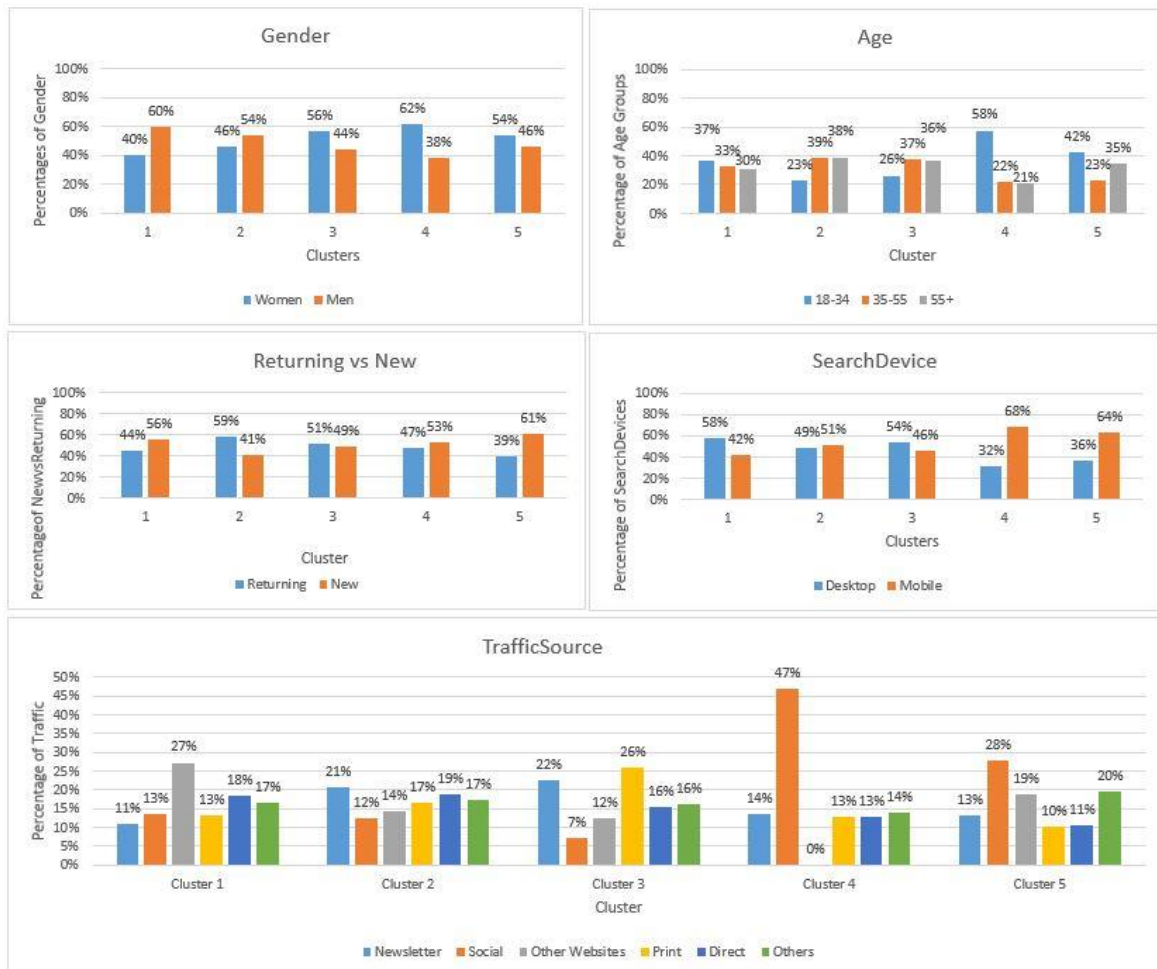


Figure 16: Attribute expressions in 5 Ward-clusters

Concerning gender, clusters 1 and 2 are men dominated, whereas clusters 3 to 5 have a bigger share of women. The biggest differences occur in cluster 1 and cluster 4. The former segment contains much more men as opposed to the latter one consisting out of much more women. These results totally match the expectations we had after checking the behavior variables for each cluster. On the one hand cluster 1, as product focused cluster is predominantly male, on the other hand clusters 3 and 4 as return heavy and socially characterized groups are more female dominated.

What stands out when looking at the age variable, is the huge percentage of young respondents in cluster 4. With 58% more than half of members are aged 18-34. Cluster 1 and Cluster 5 are also dominated by young costumers, however to a lesser extent. Cluster 2 and Cluster 3 therefore only have very small shares of young people and in both segments the age group 35-54 has the biggest percentage. It does not come as surprise that cluster 4 has a high share of young people, as sending screenshots and checking Facebook is an activity mostly performed by younger respondents. Cluster 5 shows that the price sensitive are either very young or very old. This mirrors the fact that lots of younger customers, maybe students as well as very old customers, maybe retirees do not have that much money left for sporting goods. Cluster 2, which can be considered as fast shopping segment consist to a big extent to the age group 35-54 what reflects that they most likely have a job which on the one hand gives them money but on the other hand limits their time.

Focusing on the variable "NewvsReturning" shows that cluster 2 and cluster 5 have the biggest imbalances between the two groups. Cluster 2 has been described as fast shopper cluster already and since there are a lot of returning costumers in there, the underlying reason could be trust. Since those costumers shopped already at least once before at XXL they trust XXL to have the cheapest price and good product texts and that is why they do not put so much effort into the shopping process any more. The logic runs the other way round in cluster 5, which has a strong new customer base. Here the costumers do not have prior experiences with XXL and therefore they want to make up for this lack of experience by thorough research.

The product focused Cluster 1 predominantly uses computers as search device, which is in accordance to the prior finding that customers using computers are more likely to visit other websites for additional product information. The social cluster 4 and the

price sensitive cluster 5 mainly use mobile devices as means for online shopping, what does not come as surprise either.

Eventually attribute variable 5, which is traffic source, is the hardest to interpret. There is a heavy imbalance between the clusters with regards to social traffic. In Cluster 4 and 5 the major parts come from social ads, whereas in clusters 1-3 social traffic takes an inferior role. Lots of traffic in cluster 3 comes from XXL print ads and in clusters 2 and 3 the newsletter turns out to be quite big. Finally in cluster 1 lots of respondents come from other webpages.

To conclude and summarize the results of figure 15 and figure 16 it is possible to term the 5 clusters according to their most striking features in terms of behavior as well as attribute variables.

Cluster 1: The product focused shoppers

Respondents of this cluster are very likely to not only read the XXL product text but also source additional information on other websites, check for product reviews and compare prices. Most likely a member of this group is male, between 18 and 34 years, uses a computer and is a new customer.

Cluster 2: The fast shoppers

Cluster 2 shows the lowest percentage of activity in almost all variables. The reason for this is that the predominately older shoppers have already purchased at XXL before and therefore already trust XXL.

Cluster 3: The returners

The most noteworthy feature of this segment is its high percentage of respondents checking the delivery terms as well as return policy. Other than those two variables the activity level is comparably low. Respondents of this group are mostly using computers as search device and are more likely a female than male.

Cluster 4: The social shoppers

Cluster 4 is clearly women dominated and what distinguishes this segment from others is the high likelihood of sending screenshots and visiting the XXL Facebook page. A big majority of members is below 35 years, uses a mobile device and comes on the XXL webpage through social media ads.

Cluster 5: The price sensitive shoppers

Respondents of this cluster always perform a price comparison and check if an online voucher is available in order to get the products as cheap as possible. Apart from that they also always check the delivery terms to make sure that they are not spending too much on delivery costs either. The segment is female dominated and most of the costumers of this group have never ordered at XXL before. Aged either below 35 or above 55 the major shopping device is mobile devices.

5. Conclusion

Within just a couple of years mobile shopping has gained enormous momentum in today's retail world by emerging as one of the most promising and dominant sources of sales growth. Needless to say it is more important than ever to get a better understanding of mobile shopping related topics and this master thesis aims to do that. At the heart of the thesis are 9 binary behavior variables and 5 costumer attribute variables, which have been sourced via the order confirmation of a sports retailer. Several Cross tables, a set of 9 logit regressions and a cluster analysis guarantee that the valid data base is used in the most beneficial way and provide valuable insights into mobile shopping behavior patterns.

First and foremost some descriptive analytics show how often the 9 mobile shopping behaviors at question are performed. Beside some expected results, such as the high number of respondents reading the XXL product text or checking the delivery terms, some more surprising results have been uncovered too. 1 out of 2 respondents checking the return policy before ordering, shows the deeply rooted return culture existent in central Europe and the fact that almost 60% of respondents conducted a price comparison pre-purchase stresses the importance of offering the cheapest market price. Perfect competition, for a long time nothing more than a theoretical construct, gets more of reality making firms price takers for the first time.

Apart from that the thesis shows that mobile shopping behavior varies between individuals with regards to certain attributes. 45 cross tables, matching the 9 behavior variables with the 5 attribute variables quantify some significant differences not only between genders and age groups but also between new and returning costumers,

various traffic sources and used search devices. A set of 9 logistic regressions bolsters lots of the cross tables' findings and also circles out how much of the variance in the several dependent variables are explained by our attribute variables. On the one hand there is indeed a significant impact on the 9 behavior variables but on the other, it is equally clear that there must be some decisive factors missing in the model as our Nagelkerke R^2 is rather small in many cases.

In the last stage of the thesis a cluster analysis has been performed, leading to 5 clusters and some very interesting results. In one cluster for example, each and every customer performs a price check and it turns out that this cluster mainly consists out of females, which are either very young or very old and who are purchasing at XXL mostly for the first time. By eventually terming the clusters according to their most striking behaviors a mobile shopper segmentation is done.

Despite a data sample only representative for the sporting goods industry, the thesis provides valuable insights into the nature of mobile shopping for all ecommerce businesses. On the one side understanding what customers do pre-purchase certainly has some implications on how ecommerce business is done and how a company's webpage could look like. With every third customer reading product reviews it could be wise to integrate a critique box into the webpage and with so many people checking prices it is now more important than ever to have a proper price comparison tool in place.

On the other side knowing about the discrepancies between several attribute variables or also between clusters could potentially turn targeting or other marketing related things upside down. As men are more interested in technical information it may be a good idea to integrate more descriptive texts into newsletters sent to men, whereas a sharing button could be a nice tool in a newsletter sent to women, since they are shopping more socially.

To sum that up, the managerial implications of the study are manifold and the results could be a good starting point for companies to further increase their mobile sales.

With its quantitative research design, the biggest strength of the thesis also causes some major limitations. Most notably only 9 behavior variables and only 5 attribute variables have been part of the study. Everything other than that remains in the dark. Particularly in terms of the attribute variables there is lots of room for further research. As the

logistic regressions show, there should be many other variables who could have explanatory power. What pops into mind here is for example a differentiation between income groups and other socioeconomically variables, or also between low and high involvement products for example, as it seems natural that more expensive products urge for a more thorough search and information behavior than low involvement products. With regards to the 9 behavior variables the most popular according to literature have been selected. However this does not at all mean that there are no other behavior patterns shown by costumers, or that in the time of writing this thesis some other major activities develop.

Another very serious limitation is the fact that only converting costumers have been part of the study and a model with the dependent variable of conversion/not conversion could be a very rewarding one to be tested. Lastly there are some minor limitations relating to the used variables which can be mentioned here as well. With regards to the age variable it could of course make sense to form more than only three age groups as the behavior between 18-24 year old and 25-35 year old could vary significantly. Also a finer definition of "Other website traffic" would be wise.

Any way the thesis is the first scientific literature to quantitatively research the field of mobile shopping behavior and due to the recent developments this is huge not only for filling the literature void a bit, but also for providing scientific foundations to companies. The study and also its limitations point towards plenty interesting empirical questions to discover in future research, and that is exactly what this paper aimed to do from the very beginning.

Literature

Agrebi, S. and Jallais, J., 2015. Explain the intention to use smartphones for mobile shopping. *Journal of Retailing and Consumer Services*, 22, pp.16-23.

Backhaus, K., Erichson, B., Plinke, W. and Weiber, R., (2008) *Multivariate Analysemethoden – Eine anwendungsorientierte Einführung*, 12. Auflage. Berlin

Bae, S., Lee, T., 2011. Gender differences in consumers' perception of online consumer reviews. *Electron Commerce Res* (2011) 11: 201-214.

Bell, G., 2006. The age of the thumb: A cultural reading of mobile technologies from Asia. *Knowledge, Technology & Policy*, 19(2), pp.41-57.

Bhattacharjee, A., 2000. Acceptance of e-commerce services: the case of electronic brokerages. *IEEE Transactions on systems, man, and cybernetics-Part A: Systems and humans*, 30(4), pp.411-420.

Bhattacharjee, A., 2001. Understanding information systems continuance: an expectation-confirmation model. *MIS quarterly*, pp.351-370.

Business Insider, 2016. Returning costumers are far more valuable to online retailers than new costumers. <http://www.businessinsider.com/e-commerce-report-shows-returning-customers-are-more-valuable-than-new-ones-2016-3?IR=T>

Craig, Samuel and Douglas, Nicholas 2005. *International Marketing Research*. Wiley, pp. 197

Davis, F.D., 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, pp.319-340.

Drossos, D.A., Giaglis, G.M., Vlachos, P.A., Zamani, E.D. and Lekakos, G., 2013. Consumer responses to SMS advertising: Antecedents and consequences. *International Journal of Electronic Commerce*, 18(1), pp.105-136.

Edelman, B., Jaffe, S. and Kominers, S.D., 2016. To groupon or not to groupon: The profitability of deep discounts. *Marketing Letters*, 27(1), pp.39-53.

EMarketer, 2018. Worldwide retail and ecommerce sales: eMarketer's updated forecast and new mcommerce estimates for 2016-2021

Fuentes, C. and Svingstedt, A., 2017. Mobile phones and the practice of shopping: A study of how young adults use smartphones to shop. *Journal of Retailing and Consumer Services*, 38, pp.137-146.

Garbarino, E. and Strahilevitz, M., 2004. Gender differences in the perceived risk of buying online and the effects of receiving a site recommendation. *Journal of Business Research*, 57(7), pp.768-775.

Gigerenzer, G. and Selten, R. eds., 2002. *Bounded rationality: The adaptive toolbox*. MIT press.

Goh, K.Y., Chu, J. and Wu, J., 2015. Mobile advertising: an empirical study of temporal and spatial differences in search behavior and advertising response. *Journal of Interactive Marketing*, 30, pp.34-45.

Grant, I. and O'Donohoe, S., 2007. Why young consumers are not open to mobile marketing communication. *International journal of advertising*, 26(2), pp.223-246.

Groß, M., 2015. Mobile shopping: a classification framework and literature review. *International Journal of Retail & Distribution Management*, 43(3), pp.221-241

Groß, M., 2015a. Exploring the acceptance of technology for mobile shopping: an empirical investigation among Smartphone users. *The International Review of Retail, Distribution and Consumer Research*, 25(3), pp.215-235.

Green Atkins, K. and Kim, Y.K., 2012. Smart shopping: conceptualization and measurement. *International Journal of Retail & Distribution Management*, 40(5), pp.360-375.

Hernández, B., Jiménez, J. and José Martín, M., 2011. Age, gender and income: do they really moderate online shopping behaviour?. *Online information review*, 35(1), pp.113-133.

Holmes, A., Byrne, A. and Rowley, J., 2013. Mobile shopping behaviour: insights into attitudes, shopping process involvement and location. *International Journal of Retail & Distribution Management*, 42(1), pp.25-39.

Hung, M.C., Yang, S.T. and Hsieh, T.C., 2012. An examination of the determinants of mobile shopping continuance. *International Journal of Electronic Business Management*, 10(1), p.29.

IAB Report, 2016. A Global Perspective of Mobile Commerce. *The Interactive Advertising Bureau*, (accessed 8.4.2018)

Ingene, C.A., 1984. Productivity and Functional Shifting in spatial retailing-private and social perspectives. *Journal of Retailing*, 60(3), pp.15-36.

Investopedia, 2018. Mobile Marketing. (accessed 8.4.2018)

<https://www.investopedia.com/terms/m/mobile-marketing.asp>

Ko, E., Kim, E.Y. and Lee, E.K., 2009. Modeling consumer adoption of mobile shopping for fashion products in Korea. *Psychology & marketing*, 26(7), pp.669-687.

Kotler, P. and Armstrong, G., 2010. *Principles of marketing*. Pearson education. pp 177-181

Kim, H.S., 2006. Using hedonic and utilitarian shopping motivations to profile inner city consumers. *Journal of Shopping Center Research*, 13(1), pp.57-79.

Kim, J., Jin Ma, Y. and Park, J., 2009. Are US consumers ready to adopt mobile technology for fashion goods? An integrated theoretical approach. *Journal of Fashion Marketing and Management: An International Journal*, 13(2), pp.215-230.

Kumar, A. and Mukherjee, A., 2013. Shop while you talk: Determinants of purchase intentions through a mobile device. *International Journal of Mobile Marketing*, 8(1), pp.23-37.

Lai, J.Y., Debbarma, S. and Ulhas, K.R., 2012. An empirical study of consumer switching behaviour towards mobile shopping: a Push–Pull–Mooring model. *International Journal of Mobile Communications*, 10(4), pp.386-404.

Larivière, B., Joosten, H., Malthouse, E.C., Van Birgelen, M., Aksoy, P., Kunz, W.H. and Huang, M.H., 2013. Value fusion: The blending of consumer and firm value in the distinct context of mobile technologies and social media. *Journal of Service Management*, 24(3), pp.268-293.

Larsson, Tanner, 2016. Ecommerce Evolved: The Essential Playbook to Build, Grow & Scale A Successful Ecommerce Business. www.BuildGrowScale.com

Lian, J.W. and Yen, D.C., 2014. Online shopping drivers and barriers for older adults: Age and gender differences. *Computers in Human Behavior*, 37, pp.133-143.

Li, Y.M. and Yeh, Y.S., 2010. Increasing trust in mobile commerce through design aesthetics. *Computers in Human Behavior*, 26(4), pp.673-684.

Li, M., Dong, Z.Y. and Chen, X., 2012. Factors influencing consumption experience of mobile commerce: A study from experiential view. *Internet Research*, 22(2), pp.120-141.

Lu, H.P. and Yu-Jen Su, P., 2009. Factors affecting purchase intention on mobile shopping web sites. *Internet Research*, 19(4), pp.442-458.

Matthews, T., Pierce, J. and Tang, J., 2009. No smart phone is an island: The impact of places, situations, and other devices on smart phone use. *IBM RJ10452*, pp.1-10

McFarland, D.J. and Hamilton, D., 2006. Adding contextual specificity to the technology acceptance model. *Computers in human behavior*, 22(3), pp.427-447.

MMA (2006a), Mobile Marketing Industry Glossary, available at www.mmaglobal.com/glossary.pdf, accessed April 14.42018.

Nysveen, H., Pedersen, P.E. and Thorbjørnsen, H., 2005. Intentions to use mobile services: Antecedents and cross-service comparisons. *Journal of the academy of marketing science*, 33(3), p.330.

Newzoo, 2017. Global Mobile Marketing Report 2017. (accessed 28.3.2018)
<https://newzoo.com/insights/trend-reports/global-mobile-market-report-light-2017/#>

Park, J., Yoon, Y., Lee, B., 2009. "The Effect of gender and Product Categories on Consumer Online Information Search". *NA-Advances in Consumer Research Volume 36*, pp.362-366.

Seock, Y.K. and Bailey, L.R., 2008. The influence of college students' shopping orientations and gender differences on online information searches and purchase behaviours. *International Journal of Consumer Studies*, 32(2), pp.113-121.

Shankar, V. and Balasubramanian, S., 2009. Mobile marketing: a synthesis and prognosis. *Journal of interactive marketing*, 23(2), pp.118-129.

Shankar, V., Venkatesh, A., Hofacker, C. and Naik, P., 2010. Mobile marketing in the retailing environment: current insights and future research avenues. *Journal of interactive marketing*, 24(2), pp.111-120.

Smith, A., Anderson, M., 2016. Online Shopping and E-Commerce. New technologies are impacting a wide range of Americans' commercial behaviors, from the way they evaluate products and services to the way they pay for things they buy. PewResearchCenter

Spaid, B.I. and Flint, D.J., 2014. The meaning of shopping experiences augmented by mobile internet devices. *Journal of Marketing Theory and Practice*, 22(1), pp.73-90.

Statcounter, 2018. Desktop vs Mobile vs Tablet Market Share Worldwide - February 2018. (accessed 28.3.2018) <http://gs.statcounter.com/platform-market-share/desktop-mobile-tablet/worldwide/#monthly-201802-201802-bar>

Statista, 2016: Reasons for mobile shoppers to purchase products via smartphone or tablet as of 2016. (accessed 8.4.2018) <https://www.statista.com/statistics/614673/mobile-smartphone-and-tablet-shopping-reasons-worldwide/>

Statista 1, 2018: Annual Revenue of Alibaba Group from 2010 to 2017. (accessed 28.3.2018) <https://www.statista.com/statistics/225614/net-revenue-of-alibaba/>

Ström, R., Vendel, M. and Bredican, J., 2014. Mobile marketing: A literature review on its value for consumers and retailers. *Journal of Retailing and Consumer Services*, 21(6), pp.1001-1012.

- Sultan, F., Rohm, A.J. and Gao, T.T., 2009. Factors influencing consumer acceptance of mobile marketing: a two-country study of youth markets. *Journal of Interactive Marketing*, 23(4), pp.308-320.
- Tsang, M.M., Ho, S.C. and Liang, T.P., 2004. Consumer attitudes toward mobile advertising: An empirical study. *International journal of electronic commerce*, 8(3), pp.65-78.
- Turel, O., Serenko, A. and Bontis, N., 2010. User acceptance of hedonic digital artifacts: A theory of consumption values perspective. *Information & Management*, 47(1), pp.53-59.
- Voropanova, E., 2015. Conceptualizing smart shopping with a smartphone: implications of the use of mobile devices for shopping productivity and value. *The International Review of Retail, Distribution and Consumer Research*, 25(5), pp.529-550.
- Wang, Y.S. and Liao, Y.W., 2008. Understanding individual adoption of mobile booking service: An empirical investigation. *Cyberpsychology & Behavior*, 11(5), pp.603-605.
- Wang, R.J.H., Malthouse, E.C. and Krishnamurthi, L., 2015. On the go: How mobile shopping affects customer purchase behavior. *Journal of Retailing*, 91(2), pp.217-234.
- Wu, J.H. and Wang, S.C., 2005. What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information & management*, 42(5), pp.719-729.
- Yang, K., 2012. Consumer technology traits in determining mobile shopping adoption: An application of the extended theory of planned behavior. *Journal of Retailing and Consumer Services*, 19(5), pp.484-491.
- Yang, K. and Kim, H.Y., 2012. Mobile shopping motivation: an application of multiple discriminant analysis. *International Journal of Retail & Distribution Management*, 40(10), pp.778-789.
- Zickuhr, K. 2010. Generations 2010. PewResearchCenter



200 EURO Einkaufsgutschein gewinnen

Seite 1

Sehr geehrter Kunde!

GEWINNEN Sie jetzt einen 200 Euro XXL Einkaufsgutschein!

Nehmen Sie sich einfach 3 Minuten Zeit, um die folgenden 9 Fragen zum Thema Mobile Shopping zu beantworten und schon nehmen Sie am GEWINNSPIEL teil!

Viel Spaß!

1) Haben Sie gerade das erste Mal bei www.xxlsports.at bestellt? *

- ☐ ja
- ☐ nein

2) Mit welchem Gerät haben Sie den Kauf getätigt? *

- ☐ Mit einem mobilen Gerät (Smartphone/Tablet)
- ☐ Mit einem Computer (Laptop/PC)

3) Wodurch sind Sie auf Ihr gekauftes Produkt aufmerksam geworden? (Falls Sie mehrere Produkte gekauft haben, denken Sie an Ihr Hauptprodukt) *

- ☐ Durch den XXL NEWSLETTER
- ☐ Durch XXL Werbung auf SOZIALEN NETZWERKEN(Facebook, Instagram...)
- ☐ Durch XXL Werbung auf ANDEREN WEBSITEN (Orf, Willhaben, Google, Geizhals, Kelkoo, Idealo, ...)
- ☐ Durch das XXL FLUGBLATT in der Zeitung
- ☐ Sie haben einfach so auf unserer Webseite vorbeigeschaut
- ☐

Seite 2

4) Welche Aktivitäten haben Sie im Vorfeld des Kaufes durchgeführt? *

	Ja	Nein
Ich habe den PRODUKTTEXT auf www.xxlsports.at gelesen	☐	☐
Ich habe mich auch auf anderen Webseiten zu TECHNISCHEN DETAILS des Produkts informiert	☐	☐
Ich habe im Internet nach ERFAHRUNGSBERICHTEN zum Produkt gesucht	☐	☐

5) Haben Sie auch folgendes gemacht? *

	Ja	Nein
Ich habe im Internet PREISE VERGLICHEN	☐	☐
Ich habe im Internet nach GUTSCHEINCODES für www.xxlsports.at gesucht	☐	☐
Ich habe einem Bekannten ein FOTO oder einen SCREENSHOT des Produktes GESENDET, um ihn nach seiner Meinung zu fragen	☐	☐

6) Und zu guter Letzt, wie sieht es hiermit aus? *

	Ja	Nein
Ich habe mich bezüglich der LIEFERKONDITIONEN von XXL informiert	☐	☐
Ich habe mich informiert, wie viel das RETOURNIEREN von Produkten kostet	☐	☐
Ich habe vor dem Kauf die FACEBOOK/INSTAGRAM Seite von XXL besucht	☐	☐

7) Welche Geräte haben Sie für die oben erwähnten Aktivitäten mehrheitlich verwendet? (Gemeint sind die Aktivitäten von Frage 4-6) *

- ☐ Mehrheitlich mobile Geräte (Smartphones/Tablets)
- ☐ Mehrheitlich Computer (Laptops/PCs)

Nur noch 2 kleine Fragen auf der nächsten Seite und schon haben Sie die Chance den 200 Euro Gutschein zu GEWINNEN!

8) Sie sind? *

☐ Weiblich

☐ Männlich

9) Wie alt sind Sie? *

☐ 18-34 Jahre

☐ 35-54 Jahre

☐ 55+ Jahre

Damit wir Sie im Falle eines GEWINNES verständigen können, bräuchten wir noch kurz IHRE EMAIL Adresse.

Jetzt nur noch schnell auf FERTIG klicken und schon nehmen Sie Gewinnspiel teil!

Vielen Dank,
Ihr XXL Sports & Outdoor Team

» **Umleitung auf Schlussseite von Umfrage Online** ([ändern](#))