

Differences between Mobile Shopping and Traditional Online Shopping

Rouven Schoppmann

University of Twente

P.O Box 217, 7500AE Enschede

The Netherlands

Abstract,

Purpose: This literature review aims at composing a list of the differences between mobile shopping and traditional online shopping, while taking a look into the future of mobile marketing. The reason for this review is to help to structure the available information in order to help understand why people are eager shop on mobile devices.

Design: In order to structure the information and to come up with a relevant overview, the methodology that was used is a critical literature review, which also aimed at revealing points on which the literature agrees or disagrees.

Findings: The findings of this review can be summarized as follows, the differences between mobile and traditional online shopping are originated in the characteristics of the devices they are done on. Furthermore the review has shown that the customers trust in the technology plays a great role, for the future it could be identified that mobile and traditional online shopping could work together in omni channel strategies.

Originality and Value: The review might be of value to someone who wants to find out more about mobile shopping and why it is currently generating less revenue than traditional online shopping, also the review can be of value to retail companies, which have the intention to integrate their physical stores into the world of online shopping. Additionally the reader will be able to find relevant articles of the field discussed in this review.

Graduation Committee Members:

Dr. Sjoerd de Vries

Msc. Tamara Oukes

Keywords: mobile shopping; online shopping; mobile marketing; digital marketing; omni channel; m-commerce

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1. INTRODUCTION

With the increasing number of mobile devices, like smartphones and tablets the need and use of mobile shopping is also rapidly increasing (Forrester, 2016 [10]). In 2015 US consumers spent more time on mobile applications than watching television according to Forrester 2016 [10]. With this widespread use of mobile applications, marketers gained a new platform where they can sell products and advertise. The demand for mobile shopping is not limited only to the developed countries, but also coming to the developing countries with for instance China and Malaysia as big markets (Chong, et al., 2012 [5]). Further the mobile marketing sector has been included in the research priorities 2016-2018 of the Marketing Science Institute 2016 [15]. Andrew Meola [16] stated via Business Insider in 2016 that U.S. adults spent in quartile two of 2015 approximately 59 percent of their internet time on mobile devices but only 15 percent of the money spent on online shopping was spent via mobile devices compared to desktop devices. Other studies state that about 17% of the people who use mobile devices while shopping use them to make a purchase (Cruz & McKenna, 2011 [7]). This difference in the amount of time that people spent on mobile devices and the amount of shopping they do on them underlines the importance of further research on the topic of mobile shopping. Another reason for the research is that it can help to understand the possibilities of mobile commerce and what strategies can be developed. As the adoption of mobile devices in general is making fast progress the adoption of the mobile devices as marketing channels and shopping platforms is lagging behind. The reasons for this slow adoption of the technology seem to lie in the perceived risk of the platform (Cozzarin & Dimitrov, 2015 [6]). Other articles suggest that mobile devices are not yet ready for a full adoption due to them lacking customizability and ease of use alongside with customer involvement and trust (Liébana-Cabanillas et al., 2017 [13]). By taking a look at the differences of mobile shopping and traditional online shopping, the overview can help to identify why mobile devices are mostly used for communication and entertainment (Nysveen, et al., 2005 [18]). With the theory of mobile commerce rivalling traditional e-commerce (Haghirian, et al., 2005 [20]) the need for further research in the field is justified. As the current literature is focussing on the adoption of mobile devices and mobile shopping, it becomes important to keep track of the fundamental differences between mobile devices and desktop devices. Ozok & Wei (2010) [19] suggest that traditional e-commerce might even be superior to mobile commerce. This should be the case due to interface related issues and current lack of trust of the customer in the technology. Haertfelder & Winkelmann (2016) [12] suggest that the use of so called omni channels where the customer goes into the physical store and compares prices on the mobile device can be the future of mobile shopping. The paper will provide an overview of the currently existing differences between mobile shopping and traditional online shopping while using the concept of a literature review in order to structure the available information.

1.1 Research Gap and Research Questions

The current literature is looking at the reasons of the slow adoption of mobile shopping and trying to find ways to speed up the process of the adoption. This raises the question of what makes mobile shopping different from traditional online

shopping. The answers to this question can help to understand the adoption process even more, but also show how mobile shopping is likely to develop itself in the future. Regarding the future the literature is currently covering multi and omni channel strategies in order to integrate mobile shopping into traditional online shopping and physical shopping. The goal of this paper is to compose a document that states where the fundamental differences in use between the shopping types are. And categorizing these into strengths and weaknesses can be of help for the marketers who want to get an omni channel strategy running. This alongside with the fact that the mobile sector is one of the fastest developing fields is the reason for this research.

With the term mobile shopping the action of the customer purchasing a product via a mobile device is meant. The product can be purchased either via a website or as an in app transaction, or even using the mobile device as a payment method for e-banking. This includes also the process of finding information and by that is meant to cover the whole customer journey. Traditional online shopping means that the customer is purchasing the product and searching information about the desired product via a desktop device. This leads to the following research question.

RQ: What are the differences between mobile shopping and traditional online shopping?

In order to find a starting point the first thing that had to be done was to look at the current situation. This means that the current state of mobile shopping and traditional online shopping was analysed in order to spot differences in their usage. This is not related to the characteristics of each of the types, but aims at looking at the current success of the type and how, or whether the user adopts to it. Venkatesh (2003) [24] suggests that mobile shopping still has a long ways to go in order to become profitable or widely used. This makes it important to see whether the same problems from 2003 still apply today.

1SQ: What is the current state of mobile shopping and traditional online shopping?

After the current situation is explored, the two shopping types have to be described in detail in order to have a basis of comparison. To do so the literature will be used in order to identify what each of the types offers for the customer and how he can use them. As Madden, et al. (2017) [14] state that mobile devices relax the geographical constraints the user underlies, it is important to find out what characteristics each type of shopping has. As they will have an influence on the usage of the shopping type by the customer and how companies can use them.

2SQ: What characteristics do mobile shopping and traditional online shopping have?

Based on the characteristics the next step that had to be done in order to come up with a profound comparison was to actually group these characteristics into strengths and weaknesses alongside with limitations and opportunities. Ozok & Wei (2010) [19] mention points where traditional online shopping is superior to mobile shopping, this leads to the need of finding out where each type has its strengths and weaknesses. These are based on an evaluation of the identified characteristics of the two types.

3SQ: What are the strengths and weaknesses of either mobile shopping or traditional online shopping?

The fourth question aims at giving a trend for what can happen with these two shopping types in the future. These trends will be based on the existing ways in which either of the two types is currently used. Haertfelder & Winkelmann (2016) [12] write about omni channel shopping and marketing, as this is one of the ways mobile shopping can be integrated into other shopping types, it leads to the question of what opportunities are there and how they may be used in the future, based on their strengths and weaknesses.

4SQ: Can mobile shopping be combined with traditional ways of shopping?

1.2 Methodology

The methodology that was used to come up with an answer to the research question is a critical literature review following a general structure that has been proposed in the writer's handbook of the University of Wisconsin (2017) [22]. The articles (See Reference list) that were used for this thesis have been chosen by searching databases like for instance Scopus and Web of Science for certain keywords. The articles were chosen according to the method of taking what is most cited or what has been released in the past few years. This is important in order to get articles which are relevant for the topic and do not contain outdated information. As mentioned before the articles have been collected through keyword searches in various databases, these keywords were targeting the mobile marketing sector and narrowing down to the adoption of mobile devices as shopping tools. The used keywords are, mobile shopping, m-commerce, e-commerce, online shopping and later on also omni channel marketing. The databases that were used are Scopus, Web of Science and Google Scholar. The searches were conducted in the timeframe starting from the 20th of April 2017 to 10th of May 2017, during this time 20 of the 29 sources were selected. The other nine sources that were used have been selected later on during the writing process in order to get more information about certain aspects of the topic. In order to decide which articles would be included in the thesis two different criteria have been used. The first criteria is the number of times an article has been cited in a different article, the second criteria is the relevance of the article which was classified as the release date of the article. This meant that unless the article provided substantial information for the basis of the topic it would not be chosen if it was older than six years. This was done as the mobile marketing sector and the field of online shopping are evolving quickly and changing too fast for writing a relevant thesis based on older articles. In total 23 sources have been chosen, because they are recent which meant that they were written in the past six years the other 6 sources were chosen due to them being cited often. The limitations to this literature review are that only secondary data is used and that this carries the risk of using a biased study to come up with results. Furthermore the literature that is used will only be a small representative part of all the literature that is available on the topic. The current literature has a main focus on the adoption of mobile services and tries to answer the questions of how companies can speed up the adoption of the new technology. This means that there is a lack of articles that provide an overview about the topic by looking at what has changed when mobile devices were introduced. This thesis aims at answering

the following research question with the help of four sub questions. The outcome of the thesis will be a summarizing table that contains all the differences between the two types which have been identified in the data analysis. The differences will be structured in an analysis of the strengths and weaknesses of each type, this will be done in the discussion and recommendation part in order to summarize all of the findings from the literature. The finding will also be summarised in a table. The differences can be seen when looking at where one type is favourable or not. By that the table will also help in understanding why the customers have difficulties with adopting to mobile shopping and can reveal reasons for the lower levels of perceived trust (Liébana-Cabanillas, et al., 2017 [13]). As the currently available literature (Venkatesh, 2003 [24]) is rather old compared to the topic of mobile shopping and mostly focusses on what companies have to take into consideration when they want to successfully use mobile shopping.

2. LITERATURE REVIEW

2.1 Current Adoption of Mobile Shopping and Traditional Online Shopping

In the year 2002 a Yankee Group [26] research stated that U.S. citizens do not think they need mobile services or mobile shopping, due to its complexity. Nearly fifteen years later it is predicted that about 1.5 billion smartphones will be shipped in 2017 (IDC, 2017 [21]). With this rapid growth in the sales number of the mobile devices also the importance of mobile shopping has increased. Mobile devices are mostly used for simple services, like communication and entertainment (Nysveen, et al., 2005 [18]) this suggests that the device owners did not yet fully adapt to the mobile shopping trend. A potential reason for this is that companies have to offer mobile versions of their websites in order to be relevant to the customer (Venkatesh, 2003 [24]). This is not yet the case for many companies, as marketers have been neglecting the opportunity of mobile marketing and shopping for years, even though mobile devices offer a high involvement environment for the customer (Grewal, et al., 2016 [11]). Even though 59 percent of the internet time of U.S. adults in 2015 was spend on mobile devices (Meola, 2016 [16]), only 15 percent of the money spend via online shopping was spend via mobile devices. This difference in the usage and purchase value might be explained, by different studies on the adoption of mobile devices. The perceived risk when buying on mobile devices is much higher than when people buy on desktop devices (Cozzarin & Dimitrov, 2015 [6]). The current studies focus on applying the TAM, DOI or UTAUT models to the case, but researchers suggest that this might not be enough in order to come up with solid results about why people do adapt so slowly to mobile shopping (Wang, et al., 2015 [25]). Traditional online shopping is widely accepted and used by the people. This can be explained through the bigger screen of the desktop device, which enhances the ease of use and perceived control the customer has (Liébana-Cabanillas, et al., 2017[13]). This altogether increases the level of trust, which is the ultimate inhibitor for buying via a mobile device. Also traditional online shopping via a desktop device has been around for a much longer time than mobile shopping which mostly started to get attention in the early 2000s (Venkatesh, 2003 [24]). With this longer time period the people have adapted to the ways of handling online shopping on desktop devices and also know the risks. Currently most people are

shopping online and they do it via desktop devices, because they trust their ability to control what is happening during the purchase process. When the iPhone from Apple, INC. was introduced in 2007 the customer gained full access to all websites via mobile devices (Chen & Aritejo, 2008 [4]), today this is a key requirement for mobile shopping to exist. It allows the customer to search information about the desired product online on their mobile device. In order to finally purchase the customer has the opportunity to use apps, such as the Amazon app to pay for the product. This allows for a full coverage of the customer journey (Van Bommel, et al., 2014 [22]). For traditional online shopping via desktop devices the customer does not have to download an app in order to smoothly purchase the product, but can just purchase on the website of the company. Here the customer also has the option to search for the desired product this means that desktop devices also offer a full coverage of the customer journey. When comparing the literature it can be seen that the authors agree on the statement that the customer has not yet fully adopted the opportunities mobile devices offer to the customer. Currently most researchers try to come up with solutions to this problem using the classical models of technology acceptance, like TAM, DOI or UTAUT but there are already some like Wang, et al. (2005) [25] who suggest that these models are not enough to come up with an answer. Furthermore the current literature still agrees on the point of mobile devices not being supported enough by websites in order to be used more widely for shopping. Venkatesh [24] in 2003 mentioned that mobile devices need to have access to websites in a way that is convenient to use for the customer, in 2010 Ozok & Wei [19] supported this statement by saying that the usage of mobile devices for shopping is reduced by the screen size. This was also again mentioned by a study of eMarketer in 2015 [9]. With that the researchers agree that mobile services have not yet reached their potential limit. Also the literature suggests that traditional online shopping has been widely adopted by the customer and that the customer has more trust into traditional online shopping. To close out this section the answer to the first sub question is, that mobile shopping is currently not used extensively. Whereas traditional online shopping is adopted by the customer and is widely used.

2.2 Characteristics of Mobile Shopping and Traditional Online Shopping

As can be deduced from the previous section the adoption of mobile shopping is not yet that far as the adoption of traditional online shopping. For this reason a look in the characteristics of the two shopping types will help to reveal the differences. For the reason to structure the differences a SWOT analysis (see Table 1), which only takes the strengths and weaknesses into consideration will be used for this and the following section 2.3. Traditional online shopping is done via a desktop device, this has the implication that it is reducing the potential mobility of the user. Furthermore desktop devices are not able to connect to the internet without WIFI or a certain USB-stick that provides the connection. This means that the customer is sitting at home and needs some time to boot up the system before he can go on with the shopping process. In contrast to that mobile devices do not underlie any geographical constraints and only need a few seconds to connect to the internet (Madden, et al., 2017 [14]). The implication is that mobile shopping is relaxing the temporal and geographical barriers for the customer. An example would be that the customer goes shopping in a physical store and sees

an item of which the desired colour is not in stock anymore. With mobile shopping he can purchase the item on the mobile device within minutes without having to go home (Haertfelder & Winkelmann, 2016 [12]). This is also supported by the feature that mobile devices are capable of accessing QR-codes and NFC tags, which allow the customer to quickly access specific websites and gain the desired information (Zagel, et al., 2016 [29]). Mobile purchasing is not just going into the internet and buying on Amazon or eBay, it also has the component of in-app purchases, which can be micro transactions or abonnements (Dinsmore, et al., 2017 [8]). The current trend for apps is that developers step away from paid downloads and deviate towards freemium version of the application or offer additional content that can be purchased. The most popular freemium program is not a mobile application but a storage system for documents and pictures that is mostly used on computers. Dropbox has spotted the market of mobile device users and is now offering free space to Samsung customers (Namrata, 2015 [17]). This strategy is a good depiction of what mobile devices and by that mobile shopping stand for, easy accessible, accessible from anywhere and at any time. Another characteristic of mobile devices is that they have a smaller screen than desktop devices and therefore offer less space to display information. This has to be taken into account when it comes to mobile shopping, because less space means that the customer will find it more difficult to read through longer texts. For desktop devices this problem does not exist. Another characteristic of mobile shopping is that it can have a higher customer involvement (Liébana-Cabanillas, et al., 2017 [13]). A plus point of traditional online shopping is the high level of trust the customer already has towards the process of purchasing products on websites. This comes with a high level of perceived privacy and security of personal information. Cozzarin & Dimitrov (2015) [6] state that when the perceived risk of customer is high the customer is more likely to purchase via desktop devices than via mobile devices. Also the amount of purchases done by the customer when the perceived risk is high is much larger for desktop devices than for mobile devices. This then leads to the conclusion that a characteristic of traditional online purchasing is the higher level of trust and lower level of perceived risk by the customer. The literature currently sees the mobility and flexibility that mobile devices offer as the most important characteristic. For mobile shopping this is the same. The literature also agrees on the point of traditional online shopping being done via a desktop device. The difference between the two shopping types is greatly characterized by the constraints in time and space that desktop device have and mobile devices lack. Haertfelder & Winkelmann (2016) [12] and Liébana-Cabanillas, et al. (2017) [13] also agree with their statements on the point that mobile devices can be characterized as highly individualized and that this has an influence on the shopping behaviour of the customer. In general this means that mobile shopping is more versatile and more flexible in its use for, as well the selling party as the customer. The answer to the second sub question is that the literature suggest that mobile shopping is all about saving time and shopping at any time and in any place, while having access to all relevant product information within seconds. For traditional online shopping the characteristics that are mentioned in the literature focus on security of the shopping process and ease of use, while being in one place and needing some time to complete a purchase.

2.3 Categorization of the Characteristics for Mobile Shopping and Traditional Online Shopping

This section builds up on the characteristics that have been identified in section 2.2 and categorizes them into strengths and weaknesses according to the literature (see Table 1). The flexibility that the mobile devices offer to the customer is certainly a strength and a point where mobile shopping is superior. By laying off the constraints of space and relaxing the constraints of time the purchasing of products becomes much more intuitive for the customer. The most important weakness of mobile shopping is currently the lack of trust the customer has in the available processes (Liébana-Cabanillas, et al., 2017 [13]). This has the implication that the greatest challenge for companies that strive towards making revenue via mobile commerce, is to generate trustworthy and relevant services. As trust is something that comes over time and with experience, this obstacle will take years to be overcome. A minor weakness is that websites have to be changed in order to be easily accessible from mobile devices. Mere shrinking of the web pages does not suffice to generate a comfortable shopping or browsing experience for the customer (Venkatesh, 2003 [24]). For traditional online shopping the strengths are the trust the customer has gained over the years of using this way of shopping and the higher perceived control due to the screen being bigger and therefore the customer having a better overview (Cozzarin & Dimitrov, 2005 [6]) (Nysveen, et al., 2005 [18]). For traditional online shopping which is done via a desktop device, the fact that the computer cannot be carried around as easily as a mobile device, becomes the greatest weakness. Furthermore the process of starting the computer and getting towards the website of the company and then purchasing an item takes much longer than on mobile devices. This has the implication that traditional online purchasing is not the most comfortable and best way to shop for a customer who is already at the end of the customer journey. For a customer who is not sure what type of product he wants to buy and still needs to gather a lot of information in order to make a buying decision the way of traditional online shopping is much more comfortable, due to the bigger screen of the desktop and the greater overview the customer can get. When it comes to customizable products the mobile devices can have an edge over the desktop device, because they can encourage the customer to make pictures and then use these to design their own product. A weakness of mobile shopping is that mobile devices have usability problems, when it comes to using websites easily (Ozok & Wei, 2010 [18]). The problem is that the user has to perform a lot of scrolling activities in order to navigate through the website and to access all the information that are depicted. Even though this problem has been partially solved by implementing mobile versions of the website to which users can switch when accessing the website, still many companies do not yet offer such mobile friendly websites. When talking about the mobility that mobile devices offer to the user when it comes to shopping it has to be mentioned that notebooks do offer mostly the same degree of mobility to the user. Ozok & Wei (2010) [19] suggest that shopping via mobile devices is strongly limited by the smaller screen and the therefore worse interface structure of the websites (eMarketer, 2015 [9]). This has the implication that shopping via desktop devices will be more widely used and preferred by the customer. Generally the literature agrees that the mobility and flexibility mobile devices

offer are a strength of mobile shopping. Also Cozzarin & Dimitrov (2005) [6]; Nysveen, et al. (2005) [18] and Venkatesh (2003) [24] agree that a strength of traditional online shopping is the bigger screen and therefore more convenient use of the desktop devices. Literature also agrees that the lack of mobility and flexibility of desktop devices is a weakness of traditional online shopping. Also that only 15% of all money online spent is spent via mobile devices (Meola, 2016 [16]) supports the findings of Liébana-Cabanillas, et al. (2017) [13], that mobile devices have a higher perceived risk when it comes to purchasing a product even though they are used more extensively by the customer. This section has summarized literature that helps classifying characteristics into strengths and weaknesses. With that the answer to the third sub question can be seen in Table 1.

2.4 Mobile Shopping and Traditional Online Shopping Working Together?

In the previous sections the strengths and weaknesses of the two types based on their characteristics have been identified. With that the question came up, if there are strategies that can compensate for the weaknesses of each type. This section will focus on the strategies that use both shopping types. Currently the two types are mostly used in standalone versions in which they are not used in any combination with different shopping types. As the customer has the opportunity to check online for product reviews and also can compare prices it has become more difficult for companies and especially retailers to attract new customers and to keep the current ones (Voropanova, 2015 [27]). This translates into the need for the retail companies to become more proactive and to catch the customer attention with advertisements and by getting good reviews. There are however theories and practical implementations of so called omni channel strategies. These have the advantage of having the capability of improving the customers shopping experience and being able to recommend more relevant products. Omni channel means that mobile shopping can be combined with a shopping experience inside a physical store. This has the advantage of enabling the customer to look at the product in the store and check for information about it online. This can include finding out whether the product is available in a different store or how it has been produced (Haertfelder & Winkelmann, 2016 [12]). This option is not available for traditional online shopping as desktop devices cannot easily be brought into physical stores. However they have the opportunity to stay superior towards mobile shopping when it comes to trust and usability (Haghirian, et al., 2005 [20]). Another key point is that a good customer service has to be established. This means that the customer has to be given the opportunity to contact the service personnel of the company quickly and easily via the mobile device. This can be done via chat windows or phone calls. For mobile shopping phone calls and chat windows have the disadvantage that they force the customer to close the website and by that lose access to the given product information. This problem does not arise when the customer wants to contact the customer service using a desktop device, however for phone calls the customer has to switch the device, which can make it inconvenient in the end. Another opportunity for mobile shopping is the option to scan QR-codes and to use the mobile device instead of a credit card as a payment method (Boxall, 2017 [3]). Mobile shopping also consists of the segment of in app purchases. This means that the customer can purchase virtual or physical items directly via the app they

currently use (Dinsmore, et al., 2017 [8]). This includes also the market of apps that can be bought in app stores for mobile devices. This is an example of how mobile shopping is currently used without any combination with other shopping types. The purchasing intention of customers via mobile devices can be stimulated by integrating the social media into the customer journey. Since the social media are highly individualized this offers the opportunity for marketers to specifically target advertisements to the users of the social network. As these networks are visited by a large number of people on a regular basis there is the potential to win customers (Grewal, et al., 2016 [11]). Even though social media can also be accessed via desktop devices, there the frequency of the visits is lower. With the factor of being able to easily connect to mobile internet the mobile devices have the potential of being the only online shopping medium that is used in rural areas. This means that the customer will not be able to buy a desktop device because it does not offer the needed flexibility to him. As it becomes more and more easy to buy with mobile devices this might be an opportunity for mobile devices to catch in the online shopping value. This potential is the greatest in rural Africa where mobile banking can also be an opportunity on which mobile shopping can thrive (Ayo, et al., 2012 [2]). Another opportunity where mobile shopping can shine is the usage of QR-codes and NFC tags in physical stores. This allows the customer to check online for product information quickly before making a buy decision (Zagel, et al., 2016 [29]). This technology is currently in use, but has the potential to increase in usage as the prices for NFC tags will drop with further development of the technology (Zagel, et al., 2016 [29]). When comparing the literature the idea to integrate mobile shopping into physical shopping experiences is widely spread. This leads to the implication that omni channel shopping will be the next step in the development of mobile shopping. Mobile shopping and traditional online shopping can also be combined together with physical stores in omni channel strategies (Yoshihiro, 2015 [28]). The main essence of omni channel marketing strategies is the goal to improve the shopping experience of the customer, as well in the store or in the online shop. This will be ensured by analysing the data of the customer and then coming up with the best fitting recommendations on which basis it will become more comfortable and convenient for the customer to purchase products (Yoshihiro, 2015 [28]). Literature also agrees that social media are of great importance for omni channel marketing, because they offer the retail companies a space where advertisements and recommendations can be placed. The challenge for marketers is to improve the shopping experience of the customer, this brings up the problem of properly connecting the different channels to each other. The customer should be encouraged to look up further information online when shopping in a physical store, but on the other side he should also be encouraged to visit the stores when looking for a product online. This together forms the task for the marketer to make sure that the transition from either a desktop device to a physical store and then to a mobile device feels smooth and convenient for the customer. This involves proper scaling of the website and leading the customer to the mobile version of the website when the customer accesses the website via either the QR-code or the NFC tag. With this section the fourth sub question can be answered, by stating that there are strategies that successfully use both shopping types and combine them with physical shopping. These omni channel strategies can be a way of implementing both shopping types by reducing the

weaknesses they have, by covering it up with the strengths of the other type.

2.5 Conclusions:

To conclude the literature findings, it can be mentioned that the current literature focusses on mostly two main points. The first one is the adoption of the mobile technology by the customer and how it can be achieved. The second point is, how can mobile devices and mobile shopping enhance the customer shopping experience and what possibilities do companies and marketers have. For the first topic the research seems not to have made much of a progress in the last years, since in the early 2000s Venkatesh (2003) [24] mentioned the same barriers for the adoption of mobile devices as shopping tools as Ozok& Wei [19] in the year 2010. In 2015 a study of eMarketer [9] again mentioned the same barriers of adoption. When talking about the future of mobile shopping and traditional online shopping the literature is not always going into the same direction. There is the suggestion that traditional online shopping will stay the more money generating type, due to the customer already having adopted to its use. But others suggest that the lack of mobility for the customer will ultimately increase the amount of shopping that is done via mobile devices. A practical example where the mobile the mobile devices offer gets used is Android Pay, where the user can send money to someone else via the app or pay for purchases using the phone and the app will subtract the amount of money from the bank account of the user. This works in stores as well as online or in apps (Boxall, 2017 [3]). However the literature suggests that this is likely to happen in a combination with physical stores in order to improve the shopping experience for the customer. The topics discussed in the literature are highly important for marketers in the future, this is due to the increasing use of mobile devices and the by that increasing demand for mobile shopping by the customer. What can be said is that especially the literature that goes into detail about how mobile shopping can be used in the future or what opportunities it has, is helpful for companies to plan their own future use of mobile shopping. Whether mobile shopping is rivalling or complementing traditional online shopping is something where the literature is not clear about. Haghirian, et al. (2005) [20] suggest that the two types are rivalling each other, this leads to the implication that one of them will not be used in the long term. However Cozzarin& Dimitrov (2005) [6] suggest that the lack of trust the customer has into the mobile technology regarding privacy and security will make the customer stay with traditional online shopping. This can be seen when looking at the U.S statistics for the year 2015 according to the Pew Research Center (Anderson, 2015 [1]) 73 percent of all U.S adults own a desktop device and 68 percent own a smartphone. However according to Meola [16] in 2015 only 15 percent of the online retail revenue was generated through mobile commerce. The conclusion that can be drawn from the literature regarding the future of both shopping types, but especially mobile shopping is that they can work together in omni channel strategies. These are mostly a way for retail companies to stay competitive against online shops and to find new ways to attract customers in to the stores. According to Voropanova (2015) [27] this is what retail companies have to do after the introduction of mobile devices in order to be proactive. This will help in getting new customers, which has become difficult as everybody is able to check reviews and prices online. Also the literature suggests that there is a lot more

research that has to be done in order to improve the customer experience and the quality of the omni channel strategies. The above mentioned points together with the information presented in Table 1 form the answers to the research question.

3. DISCUSSION AND RECOMMENDATIONS

Based on the literature an analysis of the strengths and weaknesses of each type will now be able to structure the information so that the differences become clearer. Afterwards a look into the literature about the future of mobile shopping within the omni channel approach will lead to the recommendations. It will become clear that the strength of one type is likely to be the weakness of the other, this has the implication that both types have situations in which they are advantageous. To start with traditional online shopping and with its strengths (see Table 1). As traditional online shopping is performed on a desktop device the first strength it has, is the overview the wide screen provides to the customer. With that comes, that it is possible to display more information at once on a webpage (Venkatesh, 2003 [24]). This has the implication that it becomes easier and more convenient for the customer to find the product information that are needed quickly. Also by the small amount of scrolling that has to be performed the customer keeps interested longer. The second strength is that most people have already purchased products online via desktop devices and are familiar with the procedure. By that customers have more trust into traditional online shopping and are more likely to purchase products even if they perceive a risk to be present Liébana-Cabanillas et al., 2017

is something that has been around for more than 20 years already. This also implies that the technology is relatively easy to use. Furthermore by being able to access much information quickly the desktop device is capable of guiding the customer throughout the whole customer journey. This means that traditional online shopping is great for people who do not know which product or even type of product they want. The customer will be able to narrow down the search based on suggestions, which of course will be displayed in a great number due to the big screen.

In contrast to the strengths of traditional online shopping are the strengths of mobile shopping (see Table 1). The most important strength here is the mobility that comes from the devices used. As mobile devices are small and can connect nearly everywhere to the internet it gives a mobility in space and time to the customer to purchase almost everywhere and at every time (Madden, et al., 2017 [14]). By this the customer has more freedom in what he does. Another strength of mobile shopping is that many people have a mobile device and regularly use it for social media. This translates into a strength than looking at the opportunity marketers have to target advertisements based on the social media profiles of customers. This is possible because mobile devices are also highly customizable. Building up on this customizable attribute comes that people download apps for their devices and by that have the possibility to do micro transactions in order to purchase in app products (Dinsmore, et al., 2017 [8]). Furthermore mobile devices are predetermined for the use of the freemium model which also comes often with apps. Producers of apps have the possibility to make money on the initial download of the application or by adding additional content for which has

Table 1. Strengths and weaknesses of mobile and traditional online shopping

Traditional online shopping		Mobile shopping	
Strengths	Weaknesses	Strengths	Weaknesses
<ul style="list-style-type: none"> -Ease of Use -The customer knows how it works -Covers the full customer journey -Provides a good overview to the customer -Perceived risk of use is lower -Wide screen due to the desktop device -Ability to display lots of information at once to the customer 	<ul style="list-style-type: none"> -Offers no mobility to the customer -Takes a long time before the customer can complete the purchase -Rather inhibits than supports spontaneous purchases by the customer due to the low flexibility in space and time 	<ul style="list-style-type: none"> -Offer great mobility to the customer -Flexibility in space and time -Supports spontaneous purchases -Is great for customer who are at the end of the customer journey due to the ability to quickly purchase products -Can connect almost everywhere and at any time to the internet -Regularly used for social media by the customer -Customizable and by that gives the opportunity to send targeted advertisements to the customer -In app purchases and micro transaction alongside the freemium model as revenue models for app producers 	<ul style="list-style-type: none"> -Small screen -Does not provide the best overview to the customer -The customer still has a lack of trust in the technology -High perceived risk in privacy and security inhibits purchases -Websites need to be adjusted for mobile phones in order to be used conveniently -Many companies still do not offer these mobile website versions

[13]). The trust also comes from the greater overview the customer has, this leads to more perceived control, meaning that the customer has the feeling that he is less likely to click something he did not want to click. Another strength in the current time is, that the customer does not have to adopt to the technology that is behind traditional online shopping, because it

to be paid. Also mobile shopping is fitting great for customers who are already at the end of the customer journey, due to the possibility of making a purchase quickly after logging into the devices and opening either the website or the app.

Now coming to the weaknesses of the two types again starting with traditional online shopping (see Table 1). As mentioned before the strength of one type is highly likely to be a weakness of the other. The greatest weakness of desktop devices is that they lack the mobility that mobile devices have. They are mostly stationary and even notebooks are still heavy and big compared to a smartphone or tablet device (Venkatesh, 2003 [24]). With this the customer loses the opportunity to complete a purchase online that was started in a physical shop, because he first has to get back home and then start the purchase process. Purchasing via a desktop device can all in all also be a relatively slow process. This makes it not the best option for customers who are already at the end of the customer journey and already know what they want to purchase.

The weaknesses of mobile shopping are first of all that the customer is not yet trusting the mobile shopping technologies fully (see Table 1). This means that the customer is likely to not purchase a product when the perceived risk is high (Cozzarin & Dimitrov, 2015 [6]). When it comes to the physical aspect of mobile shopping it has to be mentioned as a weakness that the screen of most mobile devices is small and therefore not capable to properly display a website (Ozok & Wei, 2010 [18]). Also currently many companies do not offer a mobile version of their website, which would allow the customer to access all the needed information about the product easily and quickly. However the number of mobile friendly websites is increasing.

In summary this means that the main difference between mobile shopping and traditional online shopping is the device used by the customer. The other differences in usage originate from the device used. The device characteristics are the cause for differences in the perception of control the customer has over what is happening and by that are the influence on the level of trust the customer has. The main differences in use are the mobility in time and space for mobile shopping and the lack of this mobility for traditional online shopping, combined with the technology to scan QR-codes and access NFC tags from a mobile device. Another difference lies in the ease of use, as most people have already done online shopping via a desktop device, they know how it works. This is not the case for mobile shopping, which is also perceived as more difficult due to the small screen size. There is also a difference in the level of customizability of the device by the user. As mobile devices are highly customizable by downloading apps and the high connectivity to social media, which are often one of the main usages of the mobile device. This has the implication that the mobile device is used much more frequently and at any time by the user, which allows for targeted advertisement through social media. The desktop devices which are used for traditional online shopping have boundaries in space and time, because the customer can only use the desktop device at home and will need time to start it and to begin with the search for products. A similarity of both shopping types is, that it is much easier for the customer to gain access to additional information about the desired product, which include reviews. This is a fundamental difference towards shopping in a physical store, where it is almost impossible to get reviews about products without using the mobile device and checking for it in the internet.

As suggested by the literature the future of mobile shopping might lie in omni channel shopping and marketing. This means that the mobile shopping experience gets integrated into

shopping in a physical store. In that case the customer will be able to avoid many of the weaknesses mobile shopping has. Based on the literature some guidelines can be identified on how to properly use mobile shopping integrated in omni channel shopping. Haertfelder & Winkelmann (2016) [12] mention six challenges and opportunities for retailers who want to integrate mobile shopping into their shopping experience. These opportunities involve using the mobility that mobile devices offer in order to draw customers into stores. As the customer will be able to check for information at anytime and anywhere. This includes the customer checking for product reviews and comparing prices prior to finalising the purchase. Also the customer has the possibility to quickly spread feedback or own reviews, which will be then used by others to make a decision on buying a product. Furthermore they propose the usage of social media as marketing channels even for local retail stores in order to address a broader audience. Helping the customer find what they want quicker and with less effort through the usage of recommendation agents is essential. Also analysing what the customer is searching for and what he does, as well online and in store is important, in order to gain insights into the behaviour of the customer. Use the data gathered in one channel to improve the marketing campaigns ran in another. Improve the shopping experience of the customer by giving more recommendations. To merge the online world with the physical store, QR-codes and NFC tags can be used in order to get the customer to visit the website and to spend time online (Zagel, et al., 2016 [29]). Zagel et al (2016) [29] propose that in order to increase the usage of such QR-codes and NFC tags by the customer, that it can be helpful to print the URL of the company website on the hangtag in order to encourage the customer to go online and access the additional information. This will also enable people who do not own devices that are capable of accessing NFC tags to get access to the information, by just typing in the URL in the browser. The customer uses the mobile device while shopping in a physical store often to compare the prices of certain products and to search for additional product information, also the most used lookup method were search engines (Zagel, et al., 2016 [29]). With mobile devices the customer has the opportunity to buy products online from one company and at the time purchase products in a physical store (Voropanova, 2015 [27]), this makes it easy for a customer to quickly switch to a competitor if he dislikes the products in the store he is currently in. Yoshihiro (2015) [28] mentions that it will be possible to target recommendations even better when taking into account the purchase history of the customer.

As with omni channel shopping this does not just include the online purchase history but also the physical purchase history, as all the purchases of the customer will be entered into a database and memorized for usage. This will only be the case if the customer creates an account at the store and agrees on saving these information. Furthermore the goal of omni channel marketing is to improve the shopping experience of the customer and to be able to keep the customer interested in the company and encourage him to purchase even more products, by giving targeted recommendations (Yoshihiro, 2015 [28]). As the omni channel approach also include traditional online shopping channels such as desktop devices it is important for the companies to keep in mind that the technology around them is changing and that this will have implications on the usefulness of strategy. As can be seen with desktop devices and mobile

devices for the omni channel approach, the technology adds to each other and is not overriding older marketing and shopping channels, but integrating them in a bigger picture that aims at the satisfaction of as many customers as possible. Omni channel strategies offer new ways to the retail companies to guide the customers throughout the whole customer journey. With the improved shopping recommendations it will become easier to attract the customer to buying products and also coming into the stores. According to Voropanova (2015) [27] this is what retailers have to do in order to stay competitive. As the customer has many options to gather information prior to purchasing a product the retailer has to catch the attention of the customer, in order to be able to sell a product.

The guidelines which can be derived from these articles are interpretations of the literature and theoretical. They are meant to help retail store managers, to think about omni channel strategies and whether they want to use such a strategy. Most importantly the retail store has to be sure that the customers are using the online shop enough in order to make it worth to set up a mobile version of the website and to hang out NFC tags. The second thing is that it is essential, to have a good structured website, where the customer can find any information about the product.

This is also the goal for the mobile version of the website and online shop. The third recommendation is to optimise the recommendations that are given to the customer by the online shop. This can be achieved by analysing the customers shopping history. Or taking into account the social media accounts of the customer to target advertisements. This will help to improve the recommendations the customer gets and by that encourage him to purchase more products. When the online environment of the shop is setup, it is important to also prepare the physical store, by starting to print either the URL of the shop website on the hangtag or printing QR-codes on the tags. NFC tags can also be used to get the customer to check online for more information. Use the social media as a channel for advertisements. To complement this strategy it is also possible to offer the opportunity to the customer to pay only with their phone in the physical store or the online shop, by using services like Android Pay. This would be a good fitting addition to the other channels and improve the customers shopping experience, because it remove the action of taking out the wallet and searching for cash or the credit card.

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