A Study on Factors Affecting the Behavioral Intention to use Mobile Shopping Fashion Apps in Sweden

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AUTHORS: Jelena Miladinovic, 940521-2128
                  Hong Xiang, 820526-7084
TUTORS: Elvira Kaneberg; Khizran Zehra
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Abstract

Mobile shopping is gaining increased attention in the mobile commerce research area. Trends show an increase in the development and usage of online shopping. Existing research has focused on mobile commerce and studied mobile shopping in general. This study addressed the present gap in the literature regarding the acceptance of mobile shopping applications for fashion goods (m-shopping fashion apps), by investigating the factors that affect users’ behavioral intention to use m-shopping fashion apps in Sweden. The purpose of this study is to identify the factors that affect the behavioral intention to use m-shopping fashion apps from a consumer perspective, where the consumers are the users of m-shopping fashion apps. The research model was proposed thought a literature review and incorporated the trust factor into the Consumer Acceptance and Use of Information Technology model (UTAUT 2) of Venkatesh, Thong and Xu (2012), as one of the in total eight proposed predictors of users’ behavioral intention to use mobile shopping fashion apps. A questionnaire was conducted to collect primary data and the study sample consisted of 110 respondents. Multiple linear regressions was applied to test the proposed hypotheses. The results revealed that Performance Expectancy, Habit, Facilitating Conditions and Hedonic Motivation affect the users’ behavioral intention to use m-shopping fashion apps. On a different note, Effort Expectancy, Social Influence, Price Value and Trust did not significantly affect the behavioral intention to use m-shopping fashion apps. These findings provide several managerial implications, namely the ways in which behavioral intention to use m-shopping fashion apps is needed to be taken into consideration in order to increase mobile shopping fashion apps’ usage. Moreover, this study’s research model can be used for future studies on mobile shopping fashion applications and mobile shopping.
Acknowledgement

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Jelena Miladinovic                      Hong Xiang

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1 Introduction

This chapter specifies on the background of the research, presents the problem realized and motivations behind the study. Subsequently the purpose of the work, research question, definitions of some key concepts and delimitations will be presented.

1.1 Background

Nowadays, accepting and using modern technologies is common practice, people are increasingly willing to adopt a new technology in their daily lives, making technology, now more than ever become a part of our everyday activities (Islam, Low & Hasan, 2013). Over the last two decades, mobile devices have brought a deep impact on the human’s daily life. The adoption of mobile devices grows quickly all over the world, and Europe has the highest mobile devices adoption rate in the world (Ecommercenews.eu, 2015). According to the latest statistics, global online sales are expected to grow over $280 billion in 2016 (Statista.com, 2015). However, only 13 % of all transactions are conducted via the mobile platform in Sweden in 2014 (Postnord.com, 2015).

The retail industry has recognized the potential of mobile technology, and started to provide mobile shopping to interact closer with their customers (Groß, 2015a). In general mobile shopping allows its users to browse or purchase products via mobile devices anytime, and anywhere (Groß, 2015a; Kim, Li, & Kim, 2015; Hung, Yang, & Hsieh, 2012). Mobile shopping transformed traditional consumer experiences and is a popular way for modern consumers to search, or pay for goods using the mobile platform (Hung, Yang, & Hsieh, 2012).

Moreover, mobile applications are a third-party software that can be installed on mobile devices (Grotnes, 2009). Users can install different kinds of mobile applications, such as game, music, shopping, bank payment applications and so forth, which are delivered by the third-party providers (Islam, Islam & Mazumder, 2010). By the installation of these applications, the functions of the mobile devices are expanded. The number of mobile apps has been rising, and this rise contributed to the increasing range of consumer needs that are being served by mobile apps (Kim, Yoon & Han, 2014).

Because of the disadvantages of websites due to their limited functionality, many companies, especially fashion retail companies provide mobile shopping apps to the customers (Magrath & McCormick, 2013). In order to take advantages of mobile shopping, fashion companies gradually invest into creating their mobile shopping apps because these apps foster discussion regarding the products; enable the consumers to recommend products to friends via social networks; enable the users to receive instant push notifications regarding special offers; obtain personalized information, in other words further enhance their shopping experiences (Magrath & McCormick, 2013). Compared to mobile websites, mobile applications are preferred by consumers primarily because they are perceived as more convenient, faster and easier to browse (Mobile
Apps: What Consumers Really Need and Want, 2016). Mobile shopping apps usage is growing faster comparing to most other categories of mobile apps (Khalaf, 2015).

The global fashion goods, especially apparel and footwear industry had a strong posting over 4% value growth in 2015, slightly up from 2014 (Tansel, 2016). Among the Nordic countries, Sweden spent the most on online shopping in 2015, and the second most online purchases were fashion goods (clothing and footwear) (Postnord.com, 2015). Mobile applications are soon to become a fashion retailer’s most vital sales and marketing channel, therefore it is required by researchers to increase the understanding of the consumer’s perceptions on the usage of these mobile applications (Magrath & McCormick, 2013).

Despite the benefits that mobile shopping provides to consumers and the increase in the availability of m-shopping applications, only every fifth e-consumer has engaged into mobile shopping in Sweden (Postnord.com, 2016). From this it can be inferred that m-shopping fashion apps have not yet received widespread acceptance in Sweden. What makes it especially challenging for mobile shopping in the context of fashion goods is that, for these goods it is of crucial importance for the consumer to be able to try on, and see the products one thinks of purchasing while the smaller screen of the m-devices and the asymmetrical information between the consumers and sellers can be a hindrance (Eliasson, Holkko-Lafourcade & Smajovic, 2009). Therefore it is beneficial to explain which factors lead users to accept mobile shopping apps for fashion goods (m-shopping fashion apps), and which factors stops users from using them. Being a relatively new technology (Kim et al., 2014) and trend in the traditional shopping (Kim et al., 2015), there has been no research done on the acceptance of m-shopping fashion apps. Hence, this study will be valuable to fill in the literature gap on what drives consumers’ behavioral intention to use m-shopping fashion apps in Sweden.

1.2 Problem Discussion

Due to the recent increase in fashion retail companies’ interest in providing mobile shopping applications (Magrath & McCormick, 2013), and the trend that fashion goods are one of the most purchased online goods in Sweden (Postnord.com, 2015), it is valuable to investigate which factors are fostering users to intent to use m-shopping fashion apps. Mobile applications are a recent technological development, there has been very little research conducted on them (Kim et al., 2014), and when it comes to mobile shopping applications with respect to a specific product, such as fashion goods there is no previous research done (Ko, Kim & Li, 2009).

Moreover, despite that there are some studies present which address the factors that affect the acceptance of mobile shopping in general, these studies did not apply the latest theoretical developments for understanding consumer’s acceptance of mobile shopping applications, such as the recently developed Consumer Acceptance and Use of Information Technology (UTAUT 2) by Venkatesh, Thong & Xu (2012).
Likewise there is no consistency in the research regarding the factors that affect the behavioral intention to use a certain technology. Moreover, different technologies have different factors that affect their acceptance (Gefen, Karahanna, & Straub, 2003). Venkatesh et al. (2012) have established the UTAUT 2 and support that the future research can build on their study by testing the UTAUT 2 model in the context of different technologies, and identify other relevant factors that may help increase the applicability of UTAUT 2 to a wide range of consumer technology contexts. Chang (2012) suggests that future work should explore factors that affect the acceptance of different technologies by adding factors linked to vendors, and that it would also prove interesting to posit the analysis of these variables for recent sales media. In consistence with these recommendations for further research, and as researchers have not previously addressed the factors that affect the behavioral intention to use m-shopping fashion apps, the present literature gap will be addressed. Therefore, the result of this study will be valuable to fill the literature gap, and future studies of other m-shopping apps can also benefit from this research.

1.3 Purpose

This paper aims to identify the factors that affect the behavioral intention to use m-shopping fashion apps. More explicitly, the external factors that directly determine the behavioral intention to use m-shopping fashion apps in Sweden from a consumer perspective.

*Keywords: Behavioral Intention, Mobile shopping applications, Mobile shopping fashion apps, Technology Acceptance, UTAUT 2.*

1.4 Research question

What are the factors that affect the users’ behavioral intention to use m-shopping fashion apps in Sweden?

1.5 Delimitation

In order to limit the research, this study will not focus on the factors of individual difference variables, such as age, gender, and experience which moderate the effects of factors that affect behavioral intention to use a technology. Moreover, as the study will investigate the predictors of behavioral intention from a consumer point of view, the study will not focus on business to business m-shopping and the non-users of m-shopping fashion apps. The consumers in our context are the users of mobile shopping fashion apps.
1.6 Definitions

The terms that are used throughout this study are presented, in order to clarify for the readers the concepts and reduce risk of misunderstandings.

Table 1.1 Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic commerce (e-commerce)</td>
<td>E-commerce refers to digitally enabled commercial transaction between and among organizations and individuals (Laudon &amp; Traver, 2014). It is important to note that electronic commerce takes place on a device that offers access to internet most frequently the computer (Yeh &amp; Li, 2009).</td>
</tr>
<tr>
<td>Mobile commerce (m-commerce)</td>
<td>Mobile commerce refers to the use of mobile devices (smartphones, tablets) to enable online transactions (Laudon &amp; Traver, 2014). Mobile commerce refers to the indirect or direct monetary transaction, such as banking, travel reservations, shopping, implemented through a wireless telecommunication network via mobile devices (Laudon &amp; Traver, 2014; Kleijnen, Ruyter &amp; Wetzels, 2007).</td>
</tr>
<tr>
<td>Mobile shopping (m-shopping)</td>
<td>M-shopping is defined as the use of the wireless Internet service for shopping activities via a mobile device (Ko, Kim &amp; Lee, 2009).</td>
</tr>
<tr>
<td>Mobile applications (mobile apps)</td>
<td>Mobile applications are software programs that can perform certain tasks for the users, and can be installed on the m-device (Wong, 2012; Islam, Islam &amp; Mazumder, 2010).</td>
</tr>
<tr>
<td>Mobile shopping fashion apps (m-shopping fashion apps)</td>
<td>The term m-shopping fashion apps will be used, by that that we mean mobile shopping applications that can be installed on the mobile device and which enable the user of the app to purchase and browse fashion goods on mobile devices.</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Technology acceptance</td>
<td>Technology acceptance is defined as an individual’s psychological state with his or her voluntary use of a technology (Islam, Chen &amp; Hasan, 2013).</td>
</tr>
<tr>
<td>Consumer Acceptance and Use of Information Technology (UTAUT2)</td>
<td>Consumer Acceptance and Use of Information Technology (UTAUT2) is a model and theory that integrates nine theories about user acceptance and user behavior. It explains technology acceptance in a consumer context where the consumer is the user of the information technology not in an organizational context (Venkatesh et al., 2012).</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>Behavioral intention is the individual willingness to use and continue to use a technology, and the factor that determines the usage of a technology (Venkatesh et al., 2012).</td>
</tr>
</tbody>
</table>
2. Frame of Reference

This chapter will enlighten previously conducted theory and research within relevant files of the study. Firstly, behavioral intention is introduced. Furthermore previous technology acceptance theories will be briefly presented and the Consumer Acceptance and Use of Information Technology will be explained as the evolution of these theories. Moreover, mobile shopping fashion apps will be introduced. Subsequently a focus on mobile shopping acceptance will be established where previous research will be introduced. Lastly the conclusion of frame of reference as well as the proposed research model and hypotheses will be presented.

2.1 Behavioral Intention

Behavioral intention has been defined in previous technology acceptance studies as the individual willingness to use a technology system (Venkatesh et al., 2012; Venkatesh et al., 2003; Davis et al., 1989). In accordance with Venkatesh et al. (2012) in our study we define behavioral intention as the individual willingness to use and continue to use a technology system, where the individuals are the users of technology, and the context is m-shopping fashion apps.

Moreover, there is consensus among researchers that intention to use a certain technology system is a strong predictor and determinant of the actual use of technology, and predicts users’ later usage. Due to this, the behavioral intention to use a technology is a central concept of the technology acceptance models (Venkatesh et al., 2003; Taylor & Todd, 1995; Ajzen, 1991; Sheppard et al., 1988). On the other hand, not much consensus is presented among researchers on the factors that determine the intention to perform a certain behavior, in our case use mobile shopping fashion apps. Different researchers point out different factors that affect the behavioral intention, and these factors differ depending on the context of the technology (Gfen, Karahanna & Straum, 2003; Venkatesh et al., 2003). This will be illustrated in the following sections by looking at several technology acceptance models and previous studies.

2.2 Technology Acceptance Theories and Models

The understanding of user’s acceptance of technology, more explicitly why users of technology tent to accept or reject a certain technology, what drives people to accept a technology has been a challenging issue (Davis, Bagozzi & Warshaw, 1989). Today because of the rapid and constant increase in new technology systems, it is a call for research to understand user’s acceptance of the latest technology such as the recent sales technology, the mobile platform with respect to a certain type of goods and include factors related to the vendors (Chang, 2012). Various theories and models have been developed to explain and measure the intention to use a technology, the technology acceptance theories and models have in common that they are based on the assumption that an intention to use a technology will result in actual usage of the technology, however different theories state different factors that affect the behavioral intention to
use a certain technology (Venkatesh et al., 2003). Moreover this study will use the Consumer Acceptance and Use of Information Technology (UTAUT 2) to investigate the factors that affect the behavioral intention to use m-shopping fashion apps as the UTAUT 2 was mainly developed from four previous technology acceptance models. These models are briefly introduced in the following sections in order to enrich the readers understanding of the UTAUT 2 model. Likewise the UTAUT 2 was developed specially for the consumer context of technology acceptance and empirically validated to outperform the previous technology acceptance models (Venkatesh et al. 2012).

2.2.1 Theory of Reasoned Action

The Theory of Reasoned Action (TRA) is a behavioral intention model and theory, which identifies individual’s voluntary behavior and has been developed by Fishein and Ajzen (1975). According to TRA, whether an individual performs a specific behavior or not, is determined by the intention of the individual to perform the behavior, known as behavioral intention. Furthermore, the behavioral intention is than determined by attitude towards the individual’s behavior and Subjective Norm. The attitude denotes the individual beliefs that applying a certain technology will have a positive outcome (Fishbein & Ajzen, 1975). On the other hand, Subjective Norm is the intention of the individual to use a technology based on the opinion of the social groups that are of importance to the individual and that suggest or not the technology (Fishbein & Ajzen, 1975). The figure 2.1 depicts the TRA model.

![TRA Model](image)

Figure 2.1 Theory of Reasoned Action Model (Fishbein & Ajzen, 1975).

2.2.2 Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is an extension of TRA, developed due to critics dealing with explaining behaviors for which an individual has incomplete volitional control (Ajzen, 1991). Hence, compared to TRA, TPB includes one more factor, which is Perceived Behavioral Control (PBC) and is a determinant of both intention to use and actual usage behavior. People’s behavior is strongly influenced by their individual
confidence in their ability to perform the behavior, PBC is defined as “people’s perception of the ease or difficulty of performing the behavior of interest” (Ajzen, 1991, p.183). TPB states that the higher the degree of perceived behavioral control, the higher intention to use. The higher intention to use then leads to a higher degree of usage behavior (Ajzen, 1991).

Moreover, in predicting the usage behavior there is a weak correlation between attitude and usage behavior. However, measures of intention have a close and relationship with behavior. The theory of planned behavior is built on this evidence (Ajzen, 1985). The TPB theory states that intentions generate the actual behavior, while attitudes, subjective norms and PCB affect these intentions. Figure 2.2 depicts the TPB model.

Figure 2.2 The Theory of Planned Behavior (Ajzen, 1991).

2.2.3 Technology Acceptance Model

The Technology Acceptance Model (TAM), first introduced by Davis (1989) is an information systems theory and models the users’ use and acceptance of technology. Davis, Bagozzi, and Warshaw, in 1989 revised the TPB and TRA, where the factor Perceived Usefulness (PU) and Perceived Ease of Use (PEU) where found the two most important factors that predict the intention to use technology. PU is defined as “the prospective user’s subjective probability that using a specific application system will increase his or her jobs performance” and PEOU is defined as “the degree to which the prospective user expects the target system to be free of effort” (Davis et al., 1989, p. 985). Furthermore one of their major conclusions is that the use of technology can be soundly predicted from the users’ intentions, which is consistent with the TRA and TBP, where users’ behavioral intention to perform a certain action is the main determinant of actual behavior. Figure 2.3 depicts the TPB model.
The Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT) developed by Venkatesh, Thong and Xu (2003), integrates eight models and theories of user acceptance, these consist of TRA, TAM, TPB, which were explained in the previous sections. The UTAUT was developed to investigate the acceptance of a technology in an organizational context use. Moreover the UTAUT model was empirically validated and proven to outperform each these eight individual models, which make it useful for researchers investigating the determinants of the acceptance of technology (Venkatesh et al., 2003).

The model consists of four determinants that predict the intention to use technology and the actual usage of technology. These are Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC). PE is defined as the degree to which using a technology provides benefits to individual users in performing certain activities; EE is the degree of ease associated with the individual users’ use of technology; SI is the extent to which individual users of technology perceive that important others believe they should use the technology; and FC denotes individual users’ perceptions of the resources and support available to perform a behavior (Venkatesh et al., 2003). More explicitly PE, EE, SI, influence the behavioral intention to use a technology, while facilitating conditions and behavioral intention to use a technology are determinants of actual technology use. Furthermore, those dimensions are affected by the moderator variables which are gender, age, experience and voluntariness of use (Venkatesh et al., 2003). Figure 2.4 below depicts the UTAUT model.
2.2.5 Consumer Acceptance and Use of Information Technology (UTAUT 2)

Since the UTAUT addresses employee technology acceptance, UTAUT 2 was specially introduced for the need to investigate consumer technologies, which are technologies that are targeted at consumers. Therefore the UTAUT to was extended to UTAUT 2 to suit a consumer context. Three constructs that were added to the theory are hedonic motivation (HM), price value (PV), and habit (HT).

HM has been shown to play an important role in determining technology acceptance in a consumer context and is defined as the fun or enjoyment resulting from using a technology (Venkatesh et al., 2012; Brown & Venkatesh, 2005). Moreover in a consumer setting consumers who use the technology are the ones who bear the monetary cost, hence PV affect the intention to use the technology. PV denotes the consumers’ cognitive trade-off between the perceived benefits of the technology and the monetary costs of using them (Venkatesh et al., 2012; Dodds, Monroe & Grewal, 1991). Habit has been defined as the extent to which individuals tend to perform behaviors automatically due to learning (Venkatesh et al., 2012; Limayem et al., 2007), the more the users are used to the technology the more they are willing to use it.

UTAUT 2 kept the constructs and definitions of PE, EE; SI and FC from the UTAUT adapting them to a consumer use context. In the UTAUT 2, HM, PV, HT, PE, EE, SI, and FC affect the behavioral intention to use a technology, while the behavioral intention to use a technology determines the use behavior, which is the individual actual usage of technology. In other words this theory states that the individual intention to use
the technology depends on if the technology is perceived as useful; easy to use; suggested by important others; the needed resources to use the technology are present; the technology is fun to use; the price value of the technology, and if the users have a habit to use the technology. Individual differences of age, gender, and experience, moderate the effects of these constructs on behavioral intention and technology use (Venkatesh et al., 2012). Figure 2.5 below shows the UTAUT 2 model.

The UTAUT 2 has an increased ability to explain the behavioral intention to use technology, as it consist of most external factors that affect directly the behavioral intention to use a technology compared to previous technology acceptance models. Moreover, UTAUT 2 has been validated, and due to the additional extensions of PV, HM, and HT this model further increased the predictive ability to explain consumer behavioral intention to use a technology compared to the original UTAUT (Venkatesh et al., 2012).

![Figure 2.5 UTAUT 2 (Venkatesh et al., 2012).](image)
### 2.3 Mobile Shopping Fashion Apps

E-commerce refers to digitally enabled commercial transaction between and among organizations and individuals (Laudon & Traver, 2014). It takes place on a device that offers access to internet most frequently the computer, on the other hand, mobile e-commerce, as an extension of electronic commerce, enables online transactions via mobile devices (smartphones, tablets) (Laudon & Travel, 2014; Yeh & Li, 2009). Mobile commerce is defined as any transaction, such as banking, travel reservations, shopping which is initiated and/or completed by using mobiles access to computer-mediated networks with the help of mobile devices (Tiwari & Buse, 2007; Kleijn, et al., 2007). Mobile commerce grew quickly in 2014, and the mobile access overtook the fixed internet access (Chaffey, 2016). Mobile shopping is becoming a popular approach for modern consumers to browse, order or pay for goods using a mobile device (Hung, Yang & Hsieh, 2012). M-shopping is defined as the use of the wireless Internet service for shopping activities via a mobile device (Ko, Kim & Lee, 2009).

Moreover, while pursing m-shopping, mobile users have two major venues to access online content, which are websites and mobile applications. Mobile applications are defined as software that can perform certain tasks for the users operating their mobile devices (Islam & Mazumder, 2011). Mobile applications differ from websites, as the user downloads them from the mobile application store, which is a database that allows the mobile user to discover and install available mobile applications (Wong, 2012). Likewise mobile apps are not the same as websites as they have the advantage over websites because the functionality of websites is more limited. For instance mobile applications can operate even without the internet; are directly displayed on the smartphone; they can leverage push notifications, full device functionality, i.e., location, camera, telephone, etc. (Murphy, 2011). Likewise, mobile applications load and perform faster; they have the potential to be bought via the mobile application store; and purchase and checkout process can be streamlined (Murphy, 2011). There are different mobile applications, some examples are tools and productivity (calendar, notes, flashlight, and alarms), games, music, and shopping applications (Amazon); shopping applications, which allow the purchasing and browsing of products (Bomhold, 2013).

In our study we look at the context of using mobile shopping apps for shopping activities related to fashion goods. In this study we will use the term mobile shopping fashion applications (m-shopping fashion apps) and by that we mean mobile shopping apps, that can be downloaded on the mobile device, and which enable the user of the application to purchase, browse fashion goods (clothes, footwear and accessories) via the mobile device. Moreover, m-shopping fashion apps have specific features that can make the shopping more convenient, such as the nearest store location map, push notifications about special offers, options to share items on social media, news and videos about the latest trends (Morris, 2016; Magrath & McCormick, 2013). Some examples of m-shopping fashion apps are H&M, Zara, Mango, Zalando, where users can browse and purchase fashion goods through these apps via their mobile device.


2.4 Technology Acceptance of Mobile Shopping

Since mobile shopping applications have recently emerged there is no previous study addressing specifically mobile shopping applications and m-shopping fashion apps, however there is some research present on the user acceptance of mobile commerce, and mobile shopping in general.

A research paper developed by Yang (2012) applied the TPB model to examine m-shopping adoption, and extended the original model by adopting two extensions which are perceived usefulness and perceived enjoyment. After the model was empirically validated the study concluded that perceived enjoyment, was the strongest determinant of mobile shopping adoption, and the TPB model was confirmed.

Moreover, another study conducted by Wei, Marathandan, Chong & Arumugam (2009), investigated the factors that affect the intention to use m-commerce in Malaysia, by applying the TAM model, and expanding it with factors of trust, social influence, and perceived cost. Likewise, Groß (2015b) used a modified TAM model to explore the acceptance factors of mobile shopping in Germany. The results of the study showed that in addition to the traditional TAM factors, perceived enjoyment and the trust in the m-vendor affect the consumer’s behavioral intention to use m-shopping.

Kiseol Yang (2010) investigated the determinants of US consumer m-shopping services adoption, using the UTAUT model. In the research paper the UTAUT model was empirically validated, and the additional construct of hedonic performance expectancy that was added to the UTAUT model, and found to be one of the critical determinants of US consumers’ intentions to use mobile shopping.

Previous researchers state that different technologies, and fields of studies, have different factors that affect the user acceptance of technology (Groß, 2015b; Venkatesh al., 2012; Gefen, Karahanna & Straub, 2003), therefore the same factors that affect the intention to use mobile shopping may not be valid for mobile apps and m-shopping fashion apps.

2.5 Conclusion

Most of the research work done on the acceptance of mobile commerce and mobile shopping was done by applying the TAM model, and expanding it by two or more factors, that affect the intention to use mobile shopping. However being a recent development, no previous research was using the UTAUT 2 model.

The UTAUT 2 model addresses the consumer technology acceptance and as m-fashion shopping apps are in this category this makes UTAUT 2 model especially beneficial for our study. The UTAUT 2 model consists of seven factors that determine the user intention to use a technology. Moreover, the UTAUT 2 model was empirically validated and proven to outperform the TAM, TPB, and other technology acceptance models
(Venkatesh et al., 2003), while due to the three additional factors added to the UTAUT 2, “substantial improvement in the variance explained in the behavioral intention” was achieved (Venkatesh et al., 2012, p. 157).

This indicates that UTAUT 2 being a more complete technology acceptance model is demanded for the successful investigation of the factors that affect the intention to use m-shopping fashion apps. Therefore, the UTAUT 2 is valuable for investigating the factors that affect the behavioral intention to use m-shopping fashion apps in Sweden and will be used as the foundation for the proposed research model of this study.

2.6 Proposed Research Model

This study aims to investigate the factors that are determinants and affect the behavioral intention to use m-shopping fashion apps. The research model for this study is based on the UTAUT 2 model developed by Venkatesh et al. (2012). Moreover, previous studies of technology acceptance stressed the importance of trust in the m-vendor in a m-shopping context (Groß, 2015b; Joubert & Belle, 2013; Wei et al., 2009), to make the model more suitable for our particular topic, this study expanded the model with one more external factor, Trust (trust in the m-vendor), which is related to affect directly the behavioral intention to use m-shopping fashion apps. The proposed research model is presented in Figure 2.6 The research model consists of eight independent factors that affect directly the dependent factor, behavioral intention to use m-shopping fashion apps.
2.7 Hypotheses

2.7.1 Performance Expectancy (PE)

Performance Expectancy is defined as “the degree to which using a technology will provide benefits to consumers in performing certain activities” (Venkatesh et al., 2012, p. 159). According to Venkatesh et al. (2012) the consumers are the users of the technology in a consumer user context rather than in an organizational user context (Venkatesh et al., 2012). This study adopts this definition of Performance Expectancy and consumers. Moreover, m-shopping fashion apps enable the users to purchase fashion goods, browse anytime, and get expert tips regarding fashion goods at anyplace (Morris, 2016). This factor is equivalent to Perceived Usefulness (PU) in the Technology Acceptance Model (TAM) (Venkatesh et al., 2003). In previous studies, PE has been proved to significantly affect the consumer behavioral intention in the context of m-commerce (Chong, 2013), mobile internet (Venkatesh et al., 2012). Thus, the following hypothesis is proposed:
**H1:** Performance expectancy affects the behavioral intention to use m-shopping fashion apps.

**2.7.2 Effort Expectancy (EE)**

Effort expectancy is defined as “the degree of ease associated with consumers’ use of technology” (Venkatesh et al., 2012, p. 159), and this study adopts this definition. Mobile apps are easy to operate users feel more in control with touchscreen m-devices because of the direct nature of touch (Brasel & Gips, 2014). Moreover, Effort Expectancy is equivalent to Perceived Ease of Use in Technology Acceptance Model (TAM) (Venkatesh et al., 2003). Effort expectancy has been a vital factor in previous studies on the technology acceptance, where the degree of the ease of use of the technology system affected significantly the behavioral intention of various technologies, such as 3G (Liao, Tsou & Huang, 2007), wireless internet (Lu, Yu, Liu & Yao, 2003), electronic commerce (Ha & Stoel, 2009) and m-commerce (Chong, 2013). Therefore, the following hypothesis is proposed:

**H2:** Effort expectancy affects the behavioral intention to use m-shopping fashion apps.

**2.7.3 Social Influence (SI)**

SI is defined as the extent to which consumers of technology perceive that people who are important to them (e.g. relatives, friends) think they should use the technology (Venkatesh et al., 2012), and this study adopts this definition. Moreover, SI is equivalent to subjective norm in the Theory of Reason Action and Theory of Planned Behavior, where it is an important factor that affects the adoption of a system (Venkatesh et al., 2003). Likewise since m-shopping fashion apps are not a mandatory technology, in the sense that the consumers have the free choice to use them, social influence has the potential to affect the behavioral intention to use m-shopping fashion apps. Chong (2013) found that SI is a significant determinant of the consumers’ behavioral intention to use m-commerce, and that social influence affects the consumer’s intention to use m-commerce in Malaysia. Hence, the following hypothesis is proposed:

**H3:** Social influence affects the behavioral intention to use m-shopping fashion apps.

**2.7.4 Facilitating Conditions (FC)**

Facilitating conditions is defined as “consumers’ perceptions of the resources and support available to perform a behavior” (Venkatesh et al., 2012, p. 159), and this study adopts this definition. Chong (2013) applied the UTAUT model in order to investigate the m-commerce adoption, and the study found that facilitating conditions had a significant influence on the user behavior intention to use m-commerce. Facilitating conditions in the context of m-shopping fashion apps relates to online supports and helps, m-devices, internet connection, and so forth (Hew et al., 2015; Margath & McCormick, 2013). If the
consumers have the necessary support and resources, they will have the intention to use a technology (Venkatesh et al., 2012). Hence, the following hypothesis is proposed:

**H4: Facilitating conditions affect the behavioral intention to use m-shopping fashion apps.**

### 2.7.5 Hedonic Motivation (HM)

HM is defined as “the fun or pleasure derived from using a technology” (Venkatesh et al., 2012, p. 161), and in previous technology acceptance studies it has been shown to be an important factor in determining the acceptance of technology (Brown & Venkatesh, 2005). Moreover, if a technology creates pleasure and fun while the user is using it, users are able to gain enjoyment, which influences their behavioral intention to pursue the technology (Lee, 2009). Venkatesh et al. (2012) proved HM as a significant factor that affects the behavioral intention to use mobile internet in a consumer context. Similarly in an m-shopping service context in a study by Yang (2010) it was concluded that hedonic factors are critical determinants of the m-shopping consumer usage, and that hedonic performance expectancy is gained by the users thought the fun obtained by using various features and functions in m-shopping technology. Hence, the following hypothesis is proposed:

**H5: Hedonic motivation affects the behavioral intention to use m-shopping fashion apps.**

### 2.7.6 Price Value (PV)

When it comes to the consumer use setting the main difference is that consumers are the ones who bear the monetary costs of the use of a technology. Therefore, as the technology is not provided for free by the organization unlike in the organizational use context, the cost of using the technology and pricing structure have significant impact on consumers’ technology use (Venkatesh et al., 2012). M-shopping fashion apps are mostly free to download as vendors of fashion products aim to attract more and more consumers to use the mobile shopping app and hence make purchases. Other costs for using m-shopping fashion apps are the cost of the internet, mobile device, mobile device maintenance (Wei et al., 2009). Price value in our study is defined as the as consumers’ cognitive trade-off between the perceived benefits of the mobile shopping fashion applications and the monetary cost for using them (Venkatesh et al., 2012; Dodds et al., 1991). The price value can be positive or negative; depending if the perceived benefits exceed the monetary costs of using the technology (Venkatesh et al., 2012). Wei et al., (2009) in their study claimed that cost can be a limitation to the successful development of m-commerce and that costs involved in m-commerce include cost of the device, internet, and certain applications. Hence, the following hypothesis is proposed:

**H6: Price value affects the behavioral intention to use m-shopping fashion apps.**
2.7.7 Habit (HT)

In previous studies, habit has been defined as the extent that individuals tend to execute behaviors automatically because of learning (Venkatesh et al., 2012; Limayem, Hirt & Cheung, 2007). In accordance with this definition we define habit, as the extent that individuals tend to use m-shopping fashion apps automatically. With increased experience in using a technology, the users start using the technology habitually (Venkatesh et al., 2012). Furthermore habit can predict one’s future behavior and people are more likely to have a good intention to perform acts they have performed often in the past (Ouellette & Wood, 1998). When habit is present people tend to rely more on habit compared to other external information and choice strategies (Gefen, 2003). Moreover, Venkatesh et al., (2012) found that habit affects the behavioral intention to use technology. Also, in a study conducted by Liao, Palvia and Lin (2006), it was found that habit influences the user’s intention to continue to use e-commerce. When a behavior has been done many times in the past, future behavior becomes automatic (Aarts, Verplanken & Knippenberg, 1998). Therefore, once the users have been using the app, this action becomes a routine and habit which influences the individuals to use the apps. Hence, the following hypothesis is proposed:

**H7: Habit affects the behavioral intention to use m-shopping fashion apps.**

2.7.8 Trust (T)

When it comes to situations that are perceived to have risks, trust is an important factor. Mobile shopping apps is a much newer technology, compared to mobile websites and e-commerce, and shopping via mobile apps for fashion products is recent trend, therefore users of mobile shopping fashion apps are exposed to new vulnerabilities and risks (Joubert & Belle, 2013; Magrath & McComick, 2013). Moreover, because personal information is being stored on users’ mobile shopping fashion apps in order to make the purchase of the fashion goods possible, the risks of privacy and security are quite high. Asymmetric information regarding the fashion product purchased by the user of the m-shopping fashion app and the vendor of the fashion product is present, because the user cannot physically try and see the fashion goods (Eliasson et al., 2009). Likewise in a mobile shopping context there is lack of physical interaction between in our case the vendor of the fashion products and the user of the mobile shopping fashion app; the user of the app has the risk regarding personal information stored and accessible by the app, therefore users need to have trust in order to have intend to use the mobile shopping (Vasileiadis, 2014; Chong et al., 2010; Wei et al., 2009).

Moreover, in a study by Luarn and Lin (2005) on mobile banking acceptance, it was found that issues related to security and privacy have more significant influence than the original TAM factors of perceived usefulness and perceived ease of use of the technology system. Research done in the context of online shopping by applying TAM, for example, Gefen, Karahanna and Straub (2003) showed that consumer trust in the m-vendor affects
their intentions to use mobile commerce; as trust significantly reduces the perception of risk which a consumer faces in the online commerce context. Furthermore trust in the mobile vendors was found to affect the behavioral intention to use m-shopping, as the more trust the consumer has in the m-vendors, the more it is willing to use m-shopping (Groß, 2015b).

In mobile shopping studies trust most often refers to the customer and mobile vendors relationships, and is defined as the consumer’s “willingness to rely on an exchange partner in whom one has confidence” (Groß, 2015b, p. 220; Moorman, Deshpande & Zaltman 1993, p. 82), and consequently denotes specific qualities of the mobile vendors in our case mobile fashion vendors, “including beliefs about their ability, competence, integrity and benevolence” (Groß, 2015b, p. 220; Zhou 2013; Lin & Wang 2006). In consistence with previous studies, we adopt this definition of Trust (trust in the m-vendors). The following hypothesis is proposed:

**H8: Trust affects the behavioral intention to use m-shopping fashion apps.**
3 Methodology

This chapter discusses the chosen research method of the study. The research philosophy, objective and approach will be addressed. Consequently quantitative research, and data collection will be conferred. Moreover, the research reliability and validity will be introduced. Lastly data analysis methods will be presented.

3.1 Research Philosophy

The research philosophy that is going to be adopted contains important assumptions about the way in which the researchers view the world. These assumptions underpin the research strategy and methods that researches choose as part of that strategy (Saunders, Lewis & Thorhill, 2009). This study implements the philosophy of positivism, adopting the philosophical stance of the natural scientist. This is because, the positivism philosophy consists of working with an observable social reality, where the end product of such research is law-like generalisations, similar to those produced by a natural scientist (Remenyi, Williams, Money & Swartz, 1998). When positivism scholars conduct the research, first they use existing theories and previous studies to develop hypothesis. Then, a research strategy for the collection of the data is generated, and the data is conducted. The hypothesis are then confirmed or rejected based on the data analysis (Saunders et al., 2009; Carson et al., 2001; Churchill, 1996). Moreover, the positivist view is based on the determining facts through observing and measuring reality, with quantitative methods. Thus, in consistence with positivism, this study measures scientifically the factors that affect the behavioral intention to use m-shopping fashion apps to test hypotheses that are developed from existing theory. Methods that are appropriate within positivism are quantitative with relatively large samples, thus the authors have chosen a quantitative method, and as sample of 106 respondents.

3.2 Research Objective

A research objective shows the researcher’s study direction and purpose. Maylor and Blackman (2005) suggested that research objectives should be specific, measureable, achievable, realistic and timely. This research adopts an explanatory approach, as explanatory research aims to study a situation, in order to explain the factors why something occurs, and the cause and effect relationship between variables (Saunders et al., 2009; Robson, 2002). The aim of this study is to investigate the factors that affect the users’ behavioral intention to use m-shopping fashion apps, which is a characteristic of an explanatory study. For explanatory research it is typical to adopt a statistics analysis. In consistence with this, a quantitative method will be adopted to determine which factors affect the behavioral intention to use m-shopping fashion apps in Sweden.
3.3 Research Approach

Deduction and induction are the two main research approaches. When deduction reasoning, testing of a theory, is conducted, an existing theory is adopted as a basis, then hypotheses are generated based on the theory, and finally the hypotheses are examined. Induction means a theory is developed after the data analysis (Saunders et al., 2009).

This study follows the deductive reasoning (depicted in Figure 3.1), which involves the developing of the research model based on theories. In our case technology acceptance theories and previous research is used to generate the research model and hypotheses. This study will test the eight proposed hypotheses, by collecting data using questionnaire, and statistics analysing will be used to confirm or reject the hypotheses.

![Figure 3.1 Deductive Reasoning](image)

3.4 Quantitative Research

Quantitative research implements objective measurements and the statistical, mathematical, or numerical analysis of data collected through questionnaires. It focuses on gathering numerical data and generalizing it across a population to explain a particular phenomenon (Saunders et al., 2009). Moreover, quantitative methodology employs models, hypotheses, or theories, which then are tested and explain the causality of the data (Saunders et al., 2009). Quantitative research is especially beneficial to fulfill the purpose and research question of this study as it enables accuracy, as well as the attainment and analysis of a large number of numerical data. This contributes to increased credibility of the conducted research and objectivism. Furthermore, other advantages of quantitative research are that it can generalize the research findings and it
is useful for testing and validating theories about why phenomena occur (Johnson & Christensen, 2014). Thus the quantitative research method is most appropriate for this research.

Moreover, in this study, quantitative research method is used to test the proposed research model and examine the relationship between the dependent variable, which is the behavioral intention to use m-shopping fashion apps and the eight independent variables, PE, EE, SI, FC, HM, PV, HT, and T. Through the internet-mediated self-administered questionnaire, the quantitative data will be collected, and further analysed through SPSS (statistical product and service solution). The SPSS results will determine the rejection or acceptance of the proposed hypotheses.

It is important to highlight that the operational definitions, which indicate how factors are measured in empirical studies, for the factors of the proposed research model were taken from previous research and adapted to the context of m-shopping fashion apps. Table 3.1 below shows the adopted operational definitions to the context of this study (m-shopping fashion apps), with corresponding references to the literature.

Table 3.1 Operational Definitions of Factors

<table>
<thead>
<tr>
<th>Factors</th>
<th>Type</th>
<th>Factor Measurement Definitions for this Study</th>
<th>Items</th>
<th>Adapted from the Following Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Expectancy (PE)</td>
<td>Independent, 7 point-Likert scale</td>
<td>The extent to which a user perceives that m-shopping fashion apps help improve their performance</td>
<td>3</td>
<td>Venkatesh et al. (2012); Venkatesh et al. (2003)</td>
</tr>
<tr>
<td>Effort Expectancy (EE)</td>
<td>Independent, 7 point-Likert scale</td>
<td>The extent to which a user perceive that m-shopping fashion apps are easy to use</td>
<td>4</td>
<td>Venkatesh et al. (2012); Davis et al. (1989)</td>
</tr>
<tr>
<td>Social Influence (SI)</td>
<td>Independent, 7 point-Likert scale</td>
<td>The extent to which a user perceives that important others (e.g., family and friends) believe</td>
<td>3</td>
<td>Venkatesh et al. (2012)</td>
</tr>
<tr>
<td>Variable</td>
<td>Dimension</td>
<td>Description</td>
<td>Source(s)</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td></td>
</tr>
<tr>
<td>Facilitating Conditions (FC)</td>
<td>Independent,</td>
<td>The extent to which a user perceives that resources and support are available to use m-shopping fashion apps</td>
<td>Venkatesh et al.(2012);</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 point-Likert scale</td>
<td></td>
<td>Venkatesh et al.(2003);</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Thompson et al. (1991)</td>
<td></td>
</tr>
<tr>
<td>Hedonic Motivation (HM)</td>
<td>Independent,</td>
<td>The extent to which a user experiences enjoyment and pleasure from using m-shopping fashion apps</td>
<td>Venkatesh et al. (2012)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 point-Likert scale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price Value (PV)</td>
<td>Independent,</td>
<td>The extent to which a user perceives the cognitive trade-off between the benefits of using the m-shopping fashion apps and the monetary costs of using them.</td>
<td>Venkatesh et al.(2012); Dodds et al.(1991)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 point-Likert scale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Habit (HT)</td>
<td>Independent,</td>
<td>The extent to which a user believes that using the m-shopping fashion apps is automatic</td>
<td>Venkatesh et al.(2012); Limayem et al.(2007)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 point-Likert scale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust (T)</td>
<td>(trust in the m-vendors)</td>
<td>The extent to which a user is willing to rely on m-fashion</td>
<td>Groß, (2015b)</td>
<td></td>
</tr>
</tbody>
</table>
3.5 Data Collection

Data collection involves the gathering of primary and secondary data (Hox & Boeije, 2005). Primary data means gathering data first-hand, for a specific research goal. This can involve experiments and questionnaires, but also interviews, observations or focus groups (Hox & Boeije, 2005). This data turns into secondary data when other researchers reuse this data in order to base their own research on it. Secondary data is defined as “preexisting data that was originally collected for a different research purpose or by someone other than the researcher” (Given, 2007, p. 803). This study will use both secondary and primary data collection.

3.5.1 Secondary Data Collection

A literature review was conducted in order to gather secondary data on the acceptance of technology and external factors that affect the behavioral intention to use technology. The Jönköping university library, Scopus, and Google scholar were used to gather the secondary data, which is in form of reports, journals, articles and books. Furthermore some of the keywords that were used are presented in the Table 3.2.

While doing the literature review there were very few articles related to m-shopping applications, and even fewer on m-shopping applications for fashion goods. However none of the articles addressed the mobile shopping applications acceptance, and there is no study that explored the external factors that influence the behavioral intention to use m-shopping fashion apps.

Table 3.2 Literature Review

<table>
<thead>
<tr>
<th>Theoretical Items</th>
<th>Search Word</th>
<th>Data</th>
<th>Selected articles and books</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-commerce &amp; M-shopping</td>
<td>“mobile commerce”, “m-commerce” “mobile-shopping” “m-shopping”</td>
<td>Primo (248); Google Scholar (6370); Scopus (155)</td>
<td>14 articles</td>
</tr>
</tbody>
</table>
### Technology Acceptance

<table>
<thead>
<tr>
<th>Technology acceptance</th>
<th>“Technology Acceptance” “Consumer Acceptance”</th>
<th>Primo (218); Google Scholar (12900); Scopus (183466)</th>
<th>25 articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTAUT</td>
<td>“UTAUT”, “UTAUT2”</td>
<td>Primo (3707); Google Scholar (87295); Scopus (20732)</td>
<td>5 articles</td>
</tr>
<tr>
<td>M-shopping apps &amp; M-shopping fashion apps</td>
<td>“mobile shopping applications”, “m-shopping applications”, “m-shopping fashion apps”, “mobile shopping fashion applications”</td>
<td>Primo (17); Google Scholar (50); Scopus (32)</td>
<td>0</td>
</tr>
</tbody>
</table>

#### 3.5.2 Primary Data Collection

In order to collect primary data, the selected population of this study, are all individuals in Sweden who use any m-shopping fashion app. The reason behind this selected population is that the UTAUT 2 model was constructed to be tested on users, for instance the model consists of factors such as Habit, that in order to be tested requires the respondents of the survey to have used the technology (Venkatesh et al., 2012). Also, the non-users of the m-shopping fashion apps have no knowledge and experience about these apps. They barely can form some expectations regarding these apps therefore it is hard to gain very meaningful information from the non-users. Likewise previous technology acceptance studies have gathered primary data on users, as they have experience with the technology that is being investigated (Venkatesh et al., 2012; Groß, 2015b; Hew et al., 2015).

The primary data is collected through a questionnaire. An internet-mediated self-administered questionnaire is chosen. The method chosen for data collection is non-probability sampling. Non-probability sampling are a group of sampling techniques that enable researchers to select units from a population they are interested in studying and are considered valuable for qualitative, qualitative and mixed research designs (Disseration.laerd.com, 2012). When it comes to non-probability samples, the probability of each respondent being selected from the total population is unknown (Saunders et al., 2009). Despite that some researchers view non-probability sampling techniques as inferior compared to probability sampling, there are strong practical and theoretical reasons for the use of non-probability sampling techniques (Disseration.laerd.com, 2012). When the population the researcher is interested in studying is unknown, hard to access, and a list of the population being studied cannot be obtained, the criteria for probability
sampling cannot be met, hence non-probability sampling should be used (Disseration.laerd.com, 2012). Since the population of m-shopping fashion app users in Sweden is not known, and the researchers could not obtain a list of the population, and not every m-shopping fashion app users in Sweden had the equal chance to participate, non-probability sampling is conducted. Even though we cannot meet the criteria of probability sampling our research design should not be simply abandoned as non-probability sampling offers a viable alternative that can be used (Disseration.laerd.com, 2012).

Convenience sampling is a non-probability sampling technique where data is collected from the population members who are easy to access and available to the researcher (Saunders et al., 2009). Convenience sampling is advised to be used in studies where a time constrain is present to collect the data, as the data collection can be achieved quickly (Saunders et al., 2009). This study used convenience sampling to collect the questionnaires. This sampling method is chosen due to the limited time available to collect the primary data and in order to ensure the sample size has been met to enable the hypotheses testing. On the other hand, convenience sampling can lead to over or under representation of particular groups within the sample (Saunders et al., 2009). However this study does not focus on investigating the effect of individual difference variables such as age, gender and experience that moderate the effect on the behavioral intention to use m-shopping fashion apps but aims to provide a general picture on the factors that affect the behavioral intention to use m-shopping fashion apps in Sweden. Despite the disadvantage of convenience sampling without the use of this technique the authors would not be able to collect primary data.

### 3.5.3 Sample Size

As this research investigates the factors that affect the behavioral intention to use m-shopping fashion apps in Sweden, the population of this study are m-shopping fashion app users in Sweden, who use any type of m-shopping fashion apps. There was no statistics found on the population of mobile shopping fashion app users in Sweden, hence the population of this study is unknown. Besides, it is not possible to gather data from the whole population of this study due to monetary and time limitations, hence sampling should be applied (Saunders et al., 2012). In this situation, Smith (2013) states that since there is no information about the population size, the sample size can be calculated by the saturation formula shown below, that calculates the necessary sample size. Saturation is defined as “The point in the data collection where no new or relevant information emerges, hence the researcher looks at this as the point at which no more data need to be collected” (Given, 2008, p. 196).

In order to decide on the sample size, confidence level, standard deviation and margin of error should be taken into consideration. According to the Central Limit Theorem it is suggested that the sample size should be larger than 30 in order to ensure that the sampling distribution for the mean is normally distributed (Saunders et al., 2007). As the
population is not known, but recognized as large, researchers suggest that the sample could be in some reasonable error range. The authors due to a time constrain want to ensure that the obtained necessary sample size is met. Hence, the selected margin of error is +/- 8%. Moreover the acceptable margin of error is between +/- 4% and +/- 8% (Medina & Portilla, 2015). Furthermore the chosen standard deviation is 0.5 as it ensures that the sample is relatively large enough (Smith, 2013). The most common confidence levels in research are 90%, 95% and 99% (Smith, 2013). In this study the assumed confidence level is 90%. The Z-score at 90% confidence level is 1.645. Moreover a higher confidence level was not used in the formula, as the authors aimed to obtain an acceptable and necessary sample size for the study. After entering the numbers into the formula below, it suggests that the sample size is 106 respondents.

\[
\text{Necessary Sample Size} = (\text{Z-score})^2 \times \text{StdDev} \times (1 - \text{StdDev}) / (\text{margin of error})^2
\]

\[= (1.645)^2 \times (0.5) \times (0.5) / (+/- 0.08)^2 \]

\[= 2.706 \times 0.25 / 0.0064 \]

\[= 106\]

3.5.4 Questionnaire

“The questionnaire is a measurement instrument, whose purpose is to operationalize the researchers’ information demand into a format which allows for statistical measurement” (Brancato, Macchia, Murgia, Signore, Simeoni, Blanke, & Hoffmeyer-Zlotnik, 2006, p. 2). Questionnaires are appropriate method to collect data for explanatory research (Saunders et al., 2009), therefore the authors have decided to use this approach. Moreover an Internet-mediated self-administered is chosen, which are questionnaires completed by the respondents and administered electronically using the internet (Saunders et al., 2009).

When selecting the questionnaire type it was to be kept in mind that a questionnaire that would enable quick collection of data and accurately transfer the collected data to excel and SPSS to facilitate the analysis process should be chosen. Thus, the authors decided to practice the Internet-mediated self-administered questionnaire, as they are convenient to fill in for the respondents, and enable the researchers to collect and analyze the responses with ease (Saunders et al., 2009). Moreover the questionnaire was administered via Google forms. This collection method is most appropriate to overcome the time constrain challenge, as Google forms consist of convenient templates for setting up questions, enables unlimited responses to be collected, and most importantly have an easy option to transfer the responses on an excel document which is SPSS friendly, hence, ensures that there is no typing error when transferring the data to SPSS.
Since the population of this study consists of all people that use any m-shopping fashion apps in Sweden, the online questionnaire was distributed by social media platforms. The survey link was posted on different Facebook groups in Sweden, which fostered the collection of respondents living from various places in Sweden. To increase responses the questionnaire was distributed face to face, via tablets and mobile phones. The face to face questionnaire was conducted in the city of Jönköping and Stockholm, such as the shopping centers, train stations and universities, where large number of people circulate. The respondents were asked if they were users of m-shopping fashion apps, and the definition of m-shopping fashion apps was provided as well some examples of these apps. This enabled that all the respondents had the knowledge that was required to answer the survey, and were users of these apps.

In order to ensure the content validity of the questionnaire scale used, it is highly recommended to adapt the survey questions (items) for each of the factors investigated from prior researches (Luarn & Lin, 2005). Hence, in this research, 31 survey items for eight factors in the questionnaire were developed from the past empirical studies, and are modified to fit the context of m-shopping fashion apps. All the questions in the survey are measured with the 7 point Likert-scale from strongly disagree to strongly agree in consistence with previous studies. More explicitly, the survey questions for all of the factors (BI, PE, EE, SI, FC, PV, HM, HT) except Trust were adopted from Venkatesh et al. (2012). The questions for the Trust factor were adopted from Groß (2015b). Table 3.3 shows the questionnaire questions of this study with references to the literature they were adopted form.

Moreover, apart from questions regarding the factors, the questionnaire also consists of demographic questions that about the usage of m-shopping fashion apps, age, gender and usage period of m-fashion shopping apps to gain better understanding of the respondents and aid the creation of deeper insights from the obtained data and findings. Appendix I displays the questionnaire.

Table 3.3 Questionnaire Questions and References in the Literature

<table>
<thead>
<tr>
<th><strong>Behavior Intention</strong> (to use m-shopping fashion apps)</th>
<th><strong>Performance Expectancy</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BI1</strong>: I intent to continue using m-shopping fashion apps in the future.</td>
<td><strong>(Venkatesh et al., 2012)</strong></td>
</tr>
<tr>
<td><strong>BI2</strong>: I will always try to use m-shopping fashion apps.</td>
<td><strong>(Venkatesh et al., 2012)</strong></td>
</tr>
<tr>
<td><strong>BI3</strong>: I plan to continue to use using m-shopping fashion apps frequently.</td>
<td><strong>(Venkatesh et al., 2012)</strong></td>
</tr>
<tr>
<td><strong>PE1</strong>: I find using m-shopping fashion apps useful.</td>
<td><strong>(Venkatesh et al., 2012)</strong></td>
</tr>
<tr>
<td><strong>PE2</strong>: To use m-shopping fashion apps helps me accomplish things more quickly.</td>
<td><strong>(Venkatesh et al., 2012)</strong></td>
</tr>
<tr>
<td><strong>PE3:</strong> Using m-shopping fashion apps increases my productivity.</td>
<td></td>
</tr>
<tr>
<td><strong>EE1:</strong> Learning how to use m-shopping fashion apps is easy for me.</td>
<td></td>
</tr>
<tr>
<td><strong>EE2:</strong> My interaction with m-shopping fashion apps is clear and understandable.</td>
<td></td>
</tr>
<tr>
<td><strong>EE3:</strong> I find m-shopping fashion apps easy to use.</td>
<td></td>
</tr>
<tr>
<td><strong>EE4:</strong> It is easy for me to become skillful at using m-shopping fashion apps.</td>
<td></td>
</tr>
</tbody>
</table>

| **SI1:** People who are important to me think that I should use m-shopping fashion apps. |
| **SI2:** People who influence my behavior think that I should use m-shopping fashion apps. |
| **SI3:** People whose opinions that I value prefer that I use m-shopping fashion apps. |

| **FC1:** I have the resources necessary to use the m-shopping fashion apps. |
| **FC2:** I have the necessary knowledge to use the m-shopping fashion apps. |
| **FC3:** M-shopping fashion apps are compatible with other technologies I use. |
| **FC4:** I can get help from others when I have difficulties using m-shopping apps for fashion goods. |

| **HM1:** To use m-shopping fashion apps is fun. |
| **HM2:** To use m-shopping fashion apps is enjoyable. |
| **HM3:** To use m-shopping fashion apps is very entertaining. |

| **PV1:** M-shopping fashion apps are reasonably priced. |
| **PV2:** M-shopping fashion apps are a good value for money. |

**Effort Expectancy** *(Venkatesh et al., 2012)*

**Social Influence** *(Venkatesh et al., 2012)*

**Facilitating Conditions** *(Venkatesh et al., 2012)*

**Hedonic Motivation** *(Venkatesh et al., 2012)*

**Price Value** *(Venkatesh et al., 2012)*
**PV3:** At the current price for using m-shopping fashion apps (such as internet, smartphone maintenance, price of apps…) good value for money is provided.

**HT1:** The use of m-shopping fashion apps has become a habit for me.

**HT2:** I am addicted to using m-shopping fashion apps.

**HT3:** I must use m-shopping fashion apps.

Based on my previous experience with fashion m-vendors…

**T1:** I think they are honest.

**T2:** I think they are trustworthy.

**T3:** I think they provide good customer services.

**T4:** I think they care about their customers and take their concerns seriously.

**T5:** I think they keep customers’ interests in mind.

<table>
<thead>
<tr>
<th>Habit</th>
<th>Trust (in the m-vendors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Venkatesh et al., 2012)</td>
<td>(Groß, 2015b)</td>
</tr>
</tbody>
</table>

### 3.6 Quantitative Data Analysis

Descriptive and inferential statistics are the main two methods of analyzing quantitative data obtained from surveys (Saunders et al., 2009). Descriptive statistics summarizes the data collected and allows the researchers to “provide another context, a richer picture or enhanced representation in which to examine the phenomenon of interested” (Given, 2008, p. 209). Hence, in order to obtain a more profound understanding of the behavioral intention of the users of m-shopping fashion apps, and to visualize the sample descriptive analysis will be applied for the demographic information collected in the questionnaire.

Inferential statistics enables the testing of hypothesis and uses the data to make inferences about population based on the sample (Geisler, 2004). Moreover, inferential statistics will be adopted, in order to make conclusions based on the data by testing the hypotheses. The statistical analysis software SPSS will be used to conduct all the analysis in this study.
3.7 Reliability and Validity

Reliability is defined as the consistency, and repeatability of the collected and analysed data (Given, 2008). Cronbach’s alpha is a most common method used for measuring internal consistency and reliability of the data (Saunders et al., 2009). Hence, it will be used in this study to test reliability. Internal consistency describes the “extent to which all the items in a test measure the same construct and hence it is connected to the inter-relatedness of the items within the test” (Tavakol & Dennic, 2011, p.53). Cronbach’s alpha is measured as a number between 0 and 1. Most of the researchers agree that the acceptable values of Cronbach’s alpha are above 0.7, while values below 0.7 are not satisfactory (Tavakol & Dennic, 2011; George & Mallery, 2003). A lower number of Cronbach’s alpha is due to not enough number of questions or poor inter-relatedness between the questions and factors tested.

When it comes to the validity of the questionnaire the content validity is to be considered. Content validity refers to “the extent to which the measurement questions in the questionnaire, provide adequate coverage of the investigative questions” (Saunders et al., 2009, p. 373). This study has taken survey questions for factors that are investigated, from previous studies that have been successful in proving the factors significant, to ensure content validity.

Prior to collecting data via questionnaire it is of important to conduct pilot test. The pilot test enables the researches to make sure that respondents have no problems in answering the questions and hence the recording of the data will go smoothly (Saunders et al., 2009). Moreover, before releasing the questionnaire, two pilot tests were done. The questionnaire was first pilot tested with 10 people. Participants were asked to evaluate whether the content is easy to understand. The first pilot results showed that the respondents find the questions clear. The second pilot was sent to a Swedish acquaintance to make sure the Swedish questionnaire is properly translated into Swedish.

3.8 Pearson Correlation Analysis

Moreover, before conducting multiple regression analysis, it is important that the data does not suffer from multicollinearity (Pallant, 2007). Multicollinearity problem occurs when the independent factors are too highly correlated with one another, which would lead to issues in understanding which independent factors affect the dependent factor (Hew et al., 2015). This study will look into Tolerance and VIF values, as well as conduct a Pearson Correlation Analysis to determine if the data suffers from a multicollinearity problem.

Furthermore in order to conduct a multiple regression analysis it should be checked via correlation analysis that the independent variables show at least some relationship with the dependent variable (Pallant, 2007). Hence the person correlation analysis will also be used to examine this.
3.9 Multiple Linear Regression

Regression analysis is a statistical tool for investigating the quantitative relationship between variables, and can prove the relationship between an independent and dependent variable (Sykes, 1993). Multiple linear regression analysis “is the technique that enables additional factors to enter the analysis separately so that the effect of each independent variable can be estimated. It is valuable for quantifying the impact of various simultaneous influences upon a single dependent variable” (Sykes, 1993, p. 8). Hankins, French & Horne (2000), in their article give statistical guidelines for studies on the technology acceptance models stated that these models can be tested with multiple linear regressions as the influence of several independent variables can be examined on one dependent variable (Hankins, et al., 2000).

Therefore as multiple linear regression enables the analysis of more independent variables’ effect on the dependent variable, this type of regression analysis will be used to examine the factors in the proposed research model, using the SPSS software. More explicitly if the independent factors (EE, PE, SI, FC, PV, HM, HT, T) affect the dependent factor, behavioral intention to use m-shopping fashion apps (BI).

Furthermore, as part of the multiple linear regression analysis at the end of the output the Normal Probability Plot of Regression Standardized Residual and the Residual Statistics table will be requested. The obtained Normal Probability Plot of Regression Standardized Residual should consist of points that lie reasonably straight diagonally lie from bottom left to top right. As, this would suggest no major deviations from normality (Pallant, 2007). The Residual Statistics table indicates that if the value of the Cook’s distance in the Residual Statistics table is more than 1 there is a potential problem in the data (Tabachnick & Fidell, 2001). Hence, this will be inspected to ensure that the results obtained of the multiple linear regression analysis are reliable.
4 Empirical Findings and Analysis

This chapter presents the empirical findings along with the quantitative data analysis. The results of the reliability analysis will be first presented, and followed by the descriptive analysis. Subsequently, correlation and multiple linear regression analysis results are portrayed. Lastly the results of the hypothesis testing will be reported.

4.1 Reliability Analysis

Cronbach’s alpha is used in this study to test the reliability and internal consistency of the individual factors of the proposed research model and the model as a whole. If the value of the Cronbach’s alpha is below 0.70 this would indicate that the reliability of the data is questionable (Tavkol & Dennic, 2011; George & Mallery, 2003). The nearer the Cronbach’s alpha coefficient value is to 1.0, the greater the internal consistency of the questions related to the factor which is tested. It is important to note that the authors have calculated the Cronbach’s alpha by taking the following rule into account. More explicitly researchers stated that it is a must to use summated questions for each factor, and not individual questions while calculating Cronbach’s alpha for a factor because “Cronbach’s alpha does not provide reliability estimates for single items” (Gliem, & Gliem, 2003, p.88).

<table>
<thead>
<tr>
<th>No.</th>
<th>Factors of the Proposed Research Model</th>
<th>Cronbach’s Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BI</td>
<td>0.845</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>PE</td>
<td>0.893</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>EE</td>
<td>0.896</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>SI</td>
<td>0.816</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>FC</td>
<td>0.757</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>HM</td>
<td>0.901</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>PV</td>
<td>0.900</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>HT</td>
<td>0.823</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>T</td>
<td>0.897</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Cronbach’s Alpha for overall model</td>
<td>0.944</td>
<td>31</td>
</tr>
</tbody>
</table>

Note: Number of items=110

In the primary data collection 110 valid responses were collected, which was slightly more than the necessity sample size suggested (see section 3.5.3 Sample size). After carrying out the reliability analysis, the obtained values for the Cronbach’s Alpha (see Appendix II) coefficient are summarized in Table 4.1 for each factor and as well for the overall model. Results of the Cronbach’s Alpha analysis show that all the factors, as well as the overall proposed research model are highly reliable, because all the results exceed
0.7. This indicates that the proposed research model is appropriate for the aim of this research, and the collected data is reliable.

### 4.2 Descriptive Analysis

A descriptive analysis is used to calculate the frequency of the demographic information collected with the survey, such as age, gender and usage period of m-shopping fashion apps. This enables the authors to form a more affluent understanding of m-shopping fashion users.

![Figure 4.1 Pie Chart Depicting the Gender Distribution of Respondents.](image1)

As the figure 4.1 indicates (see Appendix III), 59.1% of the respondents are female, and 40.9% are male. The collected data shows that there are more females using the m-shopping fashion apps than males. Which could indicate that in general female are keener on using these apps. However not a very drastic difference is present between the gender distribution of the respondents.

![Figure 4.2 Pie Chart Indicating the Respondent Age Distribution.](image2)

Figure 4.2 shows the age distribution of the respondents (see Appendix IV). As it can be seen from the pie chart, 61.8% of the respondents are aged from 20 to 30; 23.6% of the
respondents are less than 20 years old; 10.9% of the users are from 31 to 40; and the rest of the users who are more than 40 account for 3.6%. Therefore relatively young people, between 20 and 30, account for the majority of the m-shopping fashion app users (61.8%).

Figure 4.3 Pie Chart Indicating the Duration of Use of M-shopping Fashion Apps.

In the figure 4.3, shows the respondents’ usage period of m-shopping fashion apps (see Appendix V). As it is can be seen from this figure, 39.1% of users have used m-shopping fashion apps for 7-12 months, 11.8% of them have use it for 1-2 years, 4.5% of them use it more than 2 years, and 44.5% of the users have only used m-shopping fashion apps for several months, up to six months. The majority of the respondents in the survey use the apps less than one year, which shows that the m-shopping fashion apps are relatively new trend in Sweden.

4.3 Pearson Correlation Analysis

Moreover, a Pearson Correlation Analysis was conducted in SPSS to check if there is a linear relationship between the independent and dependent variables. A Pearson Correlation Coefficient is a measure of the linear correlation between two variables, where 1 denotes total positive correlation, 0 means no correlation, and −1 is total negative correlation.

As we can see from the table 4.2, which displays the results obtained from the Pearson Correlation Coefficient Analysis (see Appendix IX), all of our independent variables have a relationship with the dependent variable, as the value of the correlation is different from 0. This indicates that between our independent and dependent variables the linear relationship required is present to proceed with multiple linear regression analysis. Also the Pearson correlation coefficient is positive in all the cases, which indicates that there is a positive relationship between the independent factors and the dependent factor as all the independent factors.
Furthermore, multicollinearity refers to the moderately or highly correlated independent variables in a multiple regression model (Farrar & Glauber, 1967). The issue relating to multicollinearity arises if the coefficients between the independent variables are too high (Hew et al., 2015). Since the Pearson Correlation Coefficient between all of our independent variables (can be seen in table 4.2) is less than 0.7, this indicates that our data does not suffer from multicollinearity (Pallant, 2007).

Table 4.2 Pearson Correlation Coefficients Analysis Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>PE</th>
<th>EE</th>
<th>SI</th>
<th>FC</th>
<th>HM</th>
<th>PV</th>
<th>HT</th>
<th>T</th>
<th>BI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE</td>
<td>1.000</td>
<td>0.641</td>
<td>1.000</td>
<td>0.102</td>
<td>0.617</td>
<td>0.476</td>
<td>0.593</td>
<td>0.428</td>
<td>0.738</td>
</tr>
<tr>
<td>EE</td>
<td>0.641</td>
<td>1.000</td>
<td>0.152</td>
<td>0.050</td>
<td>0.102</td>
<td>0.490</td>
<td>0.019</td>
<td>0.334</td>
<td>0.541</td>
</tr>
<tr>
<td>SI</td>
<td>0.102</td>
<td>0.152</td>
<td>1.000</td>
<td>0.050</td>
<td>0.102</td>
<td>0.490</td>
<td>0.019</td>
<td>0.334</td>
<td>0.541</td>
</tr>
<tr>
<td>FC</td>
<td>0.617</td>
<td>0.050</td>
<td>0.050</td>
<td>1.000</td>
<td>0.617</td>
<td>0.089</td>
<td>0.050</td>
<td>0.354</td>
<td>0.656</td>
</tr>
<tr>
<td>HM</td>
<td>0.476</td>
<td>0.490</td>
<td>0.207</td>
<td>0.026</td>
<td>0.476</td>
<td>1.000</td>
<td>0.566</td>
<td>0.391</td>
<td>0.583</td>
</tr>
<tr>
<td>PV</td>
<td>0.593</td>
<td>0.437</td>
<td>0.019</td>
<td>0.050</td>
<td>0.593</td>
<td>0.566</td>
<td>1.000</td>
<td>0.333</td>
<td>0.656</td>
</tr>
<tr>
<td>HT</td>
<td>0.428</td>
<td>0.334</td>
<td>0.511</td>
<td>0.354</td>
<td>0.391</td>
<td>0.333</td>
<td>1.000</td>
<td>0.396</td>
<td>0.534</td>
</tr>
<tr>
<td>T</td>
<td>0.738</td>
<td>0.541</td>
<td>0.091</td>
<td>0.656</td>
<td>0.544</td>
<td>0.583</td>
<td>0.612</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>BI</td>
<td>0.541</td>
<td>0.091</td>
<td>0.656</td>
<td>0.544</td>
<td>0.583</td>
<td>0.612</td>
<td>0.534</td>
<td>1.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Also as suggested by Field (2009) if all VIF values are less than 10 and tolerance values are greater than 0.10, the multicollinearity problem will not exist. Appendix XIII Coefficients shows the VIF and tolerance values of the eight independent variables obtained with SPSS analysis. All the VIF values are less than ten, and tolerance values are greater than 0.10, which shows that our data does has a problem with multicollinearity, the same conclusion obtained from the correlation analysis.

4.4 Multiple Linear Regression Analysis

The results of the questionnaire were imported to Excel, and then from Excel to SPSS. First the sum of different group of questions related to each factor of the research model was computed. Then, the multiple linear regression analysis was run though SPSS with the computed values. After the multiple linear regression test the output was obtained and is shown in the Appendix VI Model Summary, Appendix VII ANOVA and Appendix VIII Coefficients.

R-squared indicates the proportion of the variance in the dependent factor that is
predicted from the independent factor (Saunders et al., 2009). However, “for multiple regression analyses, the quotation of $R^2$ is is not a measure of the adequacy of the model: adjusted $R^2$ is the more “honest” measure of explained variance” (Hankins et al., 2000, p.1 20). In multiple linear regression analysis it is important to report the Adjusted $R$-squared. The adjusted $R$-squared is a version of $R$-squared that is adjusted for the number of predictors in the model, it increases only if the predictor improves the model more than it would be expected by chance (Unwin, 2013). In other words, the adjusted $R^2$ measures the proportion of the total variability in the dependent variable (BI), which is explained by the independent variables of the model. In the Appendix VI Model Summary, the value of the adjusted $R^2$ is 0.66, converted into percentages, 66%. This shows that 66% of the variability in the behavioral intention to use m-shopping fashion apps is explained by the model’s independent factors. Therefore, the model of this study is useful to explain the factors that affect the behavioral intention to use m-shopping fashion apps.

The Appendix VII ANOVA, displays the ANOVA table obtained from the SPSS output. The Sig. in the ANOVA table indicates the p-value. If the p-value is smaller than 0.05 (which is the most common alpha value used in research), the model can significantly predict the dependent variable. In the ANOVA table the p-value is 0.000, which is lower than 0.05, and lower than 0.01. This directs that there is strong evidence that the model of this study has explanatory power and that the independent variables help to predict the dependent variable.

Table 4.3 SPSS Coefficients Results Summary

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Coefficient B</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Expectancy</td>
<td>.383</td>
<td>.000</td>
</tr>
<tr>
<td>Effort Expectancy</td>
<td>-.050</td>
<td>.402</td>
</tr>
<tr>
<td>Social Influence</td>
<td>-.105</td>
<td>.057</td>
</tr>
<tr>
<td>Facilitating Conditions</td>
<td>.205</td>
<td>.004</td>
</tr>
<tr>
<td>Hedonic Motivation</td>
<td>.166</td>
<td>.035</td>
</tr>
<tr>
<td>Price Value</td>
<td>.063</td>
<td>.408</td>
</tr>
<tr>
<td>Trust</td>
<td>.006</td>
<td>.924</td>
</tr>
<tr>
<td>Habit</td>
<td>.307</td>
<td>.000</td>
</tr>
</tbody>
</table>

Dependent Variable: Behavioral Intention

Table 4.3 displays and summarizes the most important results from the Appendix VIII Coefficients. If the Sig. value of the independent variable is smaller than 0.05 than it can be used to predict the dependent variable. By looking at Table 4.3 above, we can see that the Sig value, is lower than 0.05 for PE, FC, HM, and HT. Hence, each of these factors have a significant predicative ability for the dependent variable, and have an impact on the dependent variable.

However, for SI, PV, T, EE the Sig. value exceeds 0.05, which indicates that there is no significant linear relationship between these four independent variables and the
behavioral intention to use m-shopping fashion apps. This means that SI, PV, T, and EE cannot predict the behavioral intention to use m-shopping fashion apps.

B coefficient, means the increment in the dependent variable when a change is given to the independent variable, and all the other variables are held constant. Moreover, it expresses the relative importance of each independent variables in predicting the dependent variable. PE, followed by HT have the highest B coefficient value among all the other factors, 0.383, 0.307, respectively. Therefore these two factors have the strongest impact on the behavioral intention to use m-shopping fashion apps.

Moreover, the value of B coefficient also indicates if the independent variable is positively or negatively affects the dependent variable. Table 4.3 above indicates that the B coefficient values of all the significant factors are positive, therefore there is a positive relationship with the behavioral intention to use m-shopping fashion apps and the independent variables (PE; FC; HM; HT).

Moreover, as part of the multiple linear regression analysis at the end of the output the Normal Probability Plot of Regression Standardized Residual (see Appendix X) was obtained. The obtained Normal Probability Plot indicates that our data has no major deviations from normality as the points lie in a reasonably straight diagonal line (Pallant, 2007).

Residual Statistics table (see Appendix XI) shows that there is no presence of damaging outliers to our data. If the Cook’s distance in the Residual Statistics table is more than one there is a potential problem in the data (Tabachnick & Fidell, 2001). The Cook’s distance in the Residual Statistics table (see Appendix XI) is less than one, which indicates that our data does not has a problem. Hence the results obtained from the multiple linear regression analysis are reliable.

4.5 Hypotheses Testing

H1: Performance expectancy affects the behavioral intention to use m-shopping fashion apps.

The p-value of PE is 0.000, which is lower than 0.05, and 0.01, hence there is a significant linear relationship between performance expectancy and the user’s behavioral intention to use the m-shopping fashion apps. Therefore, the B coefficient of PE (0.383) is statistically significantly different from 0, and affects the behavioral intention to use m-shopping fashion apps positively. Thus, this hypothesis is accepted.

H2: Effort expectancy affects the behavioral intention to use m-shopping fashion apps.

The p-value of EE is 0.402, which is bigger than 0.05. Which illustrates, that there is no significant linear relationship between EE and behavioral intention to use m-shopping
fashion apps. Therefore, EE does not affect the behavioral intention to use m-shopping fashion apps. Thus, this hypothesis is rejected.

**H3: Social influence affects the behavioral intention to use m-shopping fashion apps.**

The p-value of SI is 0.057, which is bigger than 0.05. Which illustrates, that there is no significant linear relationship between SI and behavioral intention to use m-shopping fashion apps. Therefore, SI does not affect the behavioral intention to use m-shopping fashion apps. Thus, this hypothesis is rejected.

**H4: Facilitating conditions affect the behavioral intention to use m-shopping fashion apps.**

The p-value of FC is 0.004, which is lower than 0.05, hence there is a significant linear relationship between FC and the user’s behavioral intention to use the m-shopping fashion apps. Therefore, The B coefficient of FC (0.205) is statistically significantly different from 0, and affects the behavioral intention to use m-shopping fashion apps positively. Thus, this hypothesis is accepted.

**H5: Hedonic motivation affects the behavioral intention to use m-shopping fashion apps.**

The p-value of HM is 0.035, which is lower than 0.05, hence there is a significant linear relationship between HM and the user’s behavioral intention to use the m-shopping fashion apps. Therefore, The B coefficient of HM (0.166) is statistically significantly different from 0, and affects the behavioral intention to use m-shopping fashion apps positively. Thus, this hypothesis is accepted.

**H6: Price value affects the behavioral intention to use m-shopping fashion apps.**

The p-value of PV is 0.408, which is bigger than 0.05. Which illustrates, that there is no significant linear relationship between PV and behavioral intention to use m-shopping fashion apps. Therefore, PV does not affect the behavioral intention to use m-shopping fashion apps. Thus, this hypothesis is rejected.

**H7: Habit affects the behavioral intention to use m-shopping fashion apps.**

The p-value of HT is 0.000, which is lower than 0.05, and 0.01, hence there is a significant linear relationship between HM and the user’s behavioral intention to use the m-shopping fashion apps. Therefore, The B coefficient of HT (0.307) is statistically significantly different from 0, and affects the behavioral intention to use m-shopping fashion apps positively. Thus, this hypothesis is accepted.
**H8: Trust affects the behavioral intention to use m-shopping fashion apps.**

The p-value of T is 0.924, which is bigger than 0.05. Which illustrates, that there is no significant linear relationship between T and behavioral intention to use m-shopping fashion apps. Therefore, T does not affect the behavioral intention to use m-shopping fashion apps. Thus, this hypothesis is rejected.

Table 4.4 Summary of Results of Hypotheses Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Performance expectancy affects the behavioral intention to use m-shopping fashion apps.</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2: Effort expectancy affects the behavioral intention to use m-shopping fashion apps.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3: Social influence affects the behavioral intention to use m-shopping fashion apps.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4: Facilitating conditions affect the behavioral intention to use m-shopping fashion apps.</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5: Hedonic motivation affects the behavioral intention to use m-shopping fashion apps.</td>
<td>Accepted</td>
</tr>
<tr>
<td>H6: Price value affects the behavioral intention to use m-shopping fashion apps.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7: Habit affects the behavioral intention to use m-shopping fashion apps.</td>
<td>Accepted</td>
</tr>
<tr>
<td>H8: Trust affects the behavioral intention to use m-shopping fashion apps.</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
5 Conclusions

This chapter provides a summary of the research by relating to the purpose of the study, and answers it with the aid of the proposed research question.

The purpose of this research was to identify the factors that affect the behavioral intention to use m-shopping fashion apps in Sweden. Based on the previous technology acceptance studies and the UTAUT 2 model, this study developed the proposed research model (see Fig. 2.6) and hypothesized eight factors that affect the users’ behavioral intention to use m-shopping fashion apps. Quantitative analyses were implemented to test the eight hypotheses, and provide the source for answering research question and of this study. The tested research model is depicted in Figure 5.1 below, and Table 5.1 summarizes the factors that were proved to be significant.

Research question: What are the factors that affect the users’ behavioral intention to use m-shopping fashion apps in Sweden?

The results of the hypotheses testing show that Performance Expectancy, Habit, Hedonic Motivation and Facilitating Conditions directly affect and are determinants of the behavioral intention to use m-shopping fashion apps in Sweden. Moreover, results indicate that Performance Expectancy of m-shopping fashion apps has the strongest influence on the user’s behavioral intention to use m-shopping fashion apps. The second strongest factor that affects the behavioral intention to use m-shopping fashion apps is Habit. Consequently, the third most influential factor is Facilitating Conditions, and lastly, Hedonic Motivation. Furthermore, results also showed that PE; HT; HM; and FC, all affect positively the behavioral intention to use m-shopping fashion apps, which is in consistence with previous technology acceptance theories. The other four independent factors of the proposed research model, Effort Expectancy, Social Influence, Price Value and Trust were rejected to statistically significantly, affect the behavioral intention to use m-shopping fashion apps in Sweden.

Table 5.1 Summary of Significant Factors

<table>
<thead>
<tr>
<th>Variables</th>
<th>B coefficient</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance expectancy</td>
<td>.383</td>
<td>.000</td>
</tr>
<tr>
<td>Habit</td>
<td>.307</td>
<td>.000</td>
</tr>
<tr>
<td>Facilitating conditions</td>
<td>.205</td>
<td>.004</td>
</tr>
<tr>
<td>Hedonic motivation</td>
<td>.166</td>
<td>.035</td>
</tr>
</tbody>
</table>

Note: B coefficient is the increment in Behavioral Intention to use m-shopping fashion apps for a change in a corresponding independent factor, when all the others independent factors are held constant. Sig. is the indicator that tells which factor has a significant impact on Behavioral Intention to use m-shopping fashion apps (if the Sig. value is less than 0.05, then the factor has a significant impact).
Figure 5.1 Proposed Research Model after Hypotheses Testing.
6 Discussion

This chapter first discusses and reflects upon the results of this study. Furthermore, the research implications are recognized. Moreover the method adopted of the study is discussed, followed by the recognition of strengths and weaknesses of the conducted research. Lastly, suggestions for future research are presented.

6.1 Discussion of Results

This study has proposed eight hypotheses based on conducting a literature review. By statistically analyzing the collected data four of the hypothesis were supported and proved to affect the behavioral intention to use mobile shopping fashion apps, and four rejected. The factors that were found to affect the behavioral intention are Performance Expectancy, Habit, Facilitating Conditions, and Hedonic Motivation. All the factors that have been proven in this study to significantly affect the behavioral intention to use mobile shopping fashion apps, have a positive influence on behavioral intention, which in accordance with technology acceptance theories (Venkatesh et al., 2012; Venkatesh et al., 2003; Davis et al., 1989; Ajzen et al., 1985).

Moreover this study has rejected four hypotheses, as the statistical analysis for Social Influence, Effort Expectancy, Price Value and Trust showed that these factors do not statistically significantly affect the behavioral intention to use m-shopping fashion apps. This was to an extent expected as this study investigates the behavioral intention to use m-shopping fashion apps in Sweden, which is a context that has not been addressed before in previous research. Likewise previous technology acceptance research suggest that different cultural and technological contexts are to generate different factors that affect the acceptance of a particular technology (Venkatesh et al., 2012; Gefen et al., 2003), which means that identical factors that were identified to influence the acceptance of m-commerce and m-shopping (Yang 2012; Wei et al., 2009), mobile internet (Venkatesh et al., 2012), in previous research do not influence the behavioral intention to use m-shopping fashion apps in Sweden.

6.1.1 Performance Expectancy

Among all the other factors that affect behavioral intention, this study’s results indicate that Performance Expectancy, is the factor that has the strongest influence on behavioral intention, and hence is the strongest predictor the behavioral intention to use m-shopping fashion apps. This induces that the more people find m-shopping fashion apps useful, (as they increase the productivity in performing shopping activities for fashion goods), the more they will have the intention to use these apps. This finding is consistent with the research done by Davis, Bagozzi and Warshaw (1989), their aim was to find the most important factors that affect people’s intentions to use technology, their investigation concluded that perceived usefulness of the technology is the strongest determinant of people’s intentions to use the technology.
6.1.2 Habit

After Performance Expectancy, this study reveals that Habit is the second most important factor in predicting the user behavioral intention to use m-shopping fashion apps. This result is similar to the studies conducted by Venkatesh et al. (2012), Liao et al. (2006). Also, Hew et al. (2015), which studied technology acceptance in the context of mobile applications, found that Habit is the most important factor, which affects the intention to use mobile applications. When the using of m-shopping fashion apps becomes frequent, habit emerges and becomes a force that increases the behavioral intention to continue using the mobile applications (Hew et al., 2015). Also, in today’s Swedish society m-devices have become a part of people’s everyday life, which makes the users automatically reliant on mobile applications too. Since our results indicate that performance expectancy is the most important factor in determining the intention to use the m-fashion apps, it can be inferred that, due to users prior use of m-shopping fashion apps because they are useful, users will continue to use these apps. As people continue to use the apps, this fosters unplanned use of the apps. Here behavior evolves into Habit, and users find that they must use m-fashion shopping apps. Therefore, in the context of m-shopping fashion apps Habit plays a very important role in determining the behavioral intentions to use the app.

6.1.3 Facilitating Conditions

Facilitating conditions has been proven to statistically significantly affect the behavioral intention to use m-shopping fashion apps, which is consistent with previous work done by Chong (2013), Venkatesh et al. (2012). This implies that consumers find it important to have the necessary support and help while using m-shopping fashion apps, and the more support, and guidelines they have the more they are willing to use m-shopping fashion apps.

6.1.4 Hedonic Motivation

Likewise hedonic motivation significantly affects the behavioral intention to use m-shopping fashion apps which is in alignment with Hew et al. (2015), Venkatesh et al. (2012), Yang (2010). Therefore, from the results of this study it can be inferred that if the users of m-shopping fashion apps find the various features and functions in m-shopping fashion apps fun, the users have the intention to use these apps, and the intention to use will increase the more they find the m-shopping fashion apps entertaining. Hence, Hedonic Motivations plays a factor of importance in when it comes to determining the intention to use m-shopping fashion apps.
6.1.5 Social Influence

In this study social influence relates to the degree to which significant others (friends and relatives) believe that the user should use m-shopping fashion apps. The results of this study indicate that social influence does not affect the behavioral intention to use the m-shopping fashion apps. Yang (2013) and Hew et al. (2015) investigated mobile application’s acceptance and found that social influence could not affect the behavioral intention to use mobile apps, which is in alignment with our results. Therefore users are not influenced by the opinions and suggestions of family and friends who think they should or should not use m-shopping fashion apps. This may be because app reviews and expert opinions are made available online, hence users can make decisions if to use the app based on these reviews without having to consult relatives and friends. Likewise m-shopping fashion apps are a relatively new technology (Kim et al., 2014), many of the people the users perceives important, could be not even using the m-shopping fashion apps, and the user would not be influences significantly by family and friends surrounding the him/her.

6.1.6 Price Value

The results of this study indicate that in Sweden the Price Value factor for m-shopping fashion apps does not influence the willingness to use these apps. This finding is supported in the study conducted by Hew et al. (2015) on the acceptance of mobile apps, in which the Price Value factor did not affect the behavioral intention to use mobile apps. On the other hand, the empirical research done by Venkatesh et al. (2012) proved the Price Value factor as significant by conducting empirical research in China. However the people contrary to Sweden could be more price sensitive in China, for instance due to lower GDP per capita than in Sweden (Data.worldbank.org, 2016). This could be an underpinning reason why this factor did not prove to be significant in the context of m-shopping fashion apps in Sweden.

Moreover, users’ who are willing to use m-shopping fashion apps in Sweden are not influenced by the Price Value but by other factors, that proved to be significant, such as if the m-shopping fashion app is useful (Performance Expectancy), if the app is entertaining (Hedonic Motivation), the users are used to the apps (Habit), and if there is support and necessary resources to use the app (Facilitating Conditions). Therefore as long as the m-shopping fashion app is useful, fun to use…etc., people are willing to use m-shopping fashion apps without taking into consideration the Price Value.
6.1.7 Effort Expectancy

Effort Expectancy was found to have an insignificant effect on the user behavioral intention to use m-shopping fashion apps in Sweden, which is in contrast with prior technology acceptance studies and models (Chong, 2013; Venkatesh et al., 2012; Davis et al., 1989). However this result is consistent with the study on m-commerce acceptance of Tsu Wei et al. (2009), which concluded that there is no significant relationship between the perceived ease of use of m-commerce and consumer intention to use m-commerce.

Additionally, the results of this study show that Facilitating Conditions affects the behavioral intention to use m-shopping fashion apps, while Effort Expectancy does not have a significant effect. This could indicate that providing Facilitating Conditions are present, which means people have access to the resources necessary to use the apps, (there are satisfactory online and offline support made available), than the difficulty level of using the apps, is not a hindrance in the intention to use the m-shopping fashion apps. Hence Effort Expectancy does not affect the behavioral intention to use m-shopping fashion apps.

Moreover, most of our respondents are relatively young, aged between 20 and 30 (see Appendix IV), and therefore are used to technology and capable of learning how m-shopping fashion apps work. Furthermore, since mobile devices are the second most preferred medium for online shopping, and among the Nordic countries Sweden spent the most on online shopping in 2015 (Postnord.com, 2015), it can be inferred that people in Sweden are experienced with technology and have a good foundation of knowledge on how to use the technology and mobile apps. Hence, they find it relatively easy to learn how to use m-shopping fashion apps. Therefore the difficulty level of using the apps is not a significant predictor of the behavioral intention to use m-shopping fashion apps in Sweden.

6.1.8 Trust

An interesting finding in our study is that Trust resulted to have an insignificant effect on the behavioral intention to use m-shopping fashion apps in Sweden. However this result is coherent with the study conducted by Tang and Chi (2016), who found that consumer’s trust did not influence significantly the consumers’ intention to use an online store.

Likewise Trust in our study was defined as the willingness to rely on the m-fashion vendors in whom the individual has confidence (Groß, 2015a; Moorman et al.,1993). One reason underpinning these finding could be that the trust in the m-fashion vendor does not influence the intention to use m-shopping fashion apps because the individuals in Sweden have already gained trust in the online vendors from establishing the a good relationship from previous experience with them. This was obtained first through practicing fashion shopping with the vendors via the computer platform (e-commerce),
then through m-websites and finally with m-shopping fashion apps. In other words, people in Sweden are used to shopping online, have experience with online vendors from e-commerce and therefore they have overcome the trust concerns regarding relying on m-fashion vendors.

Moreover most of our respondents have been using the apps less than one year (see Appendix V), which indicates that m-shopping fashion apps are a relatively new trend. Also, only 13% of all conducted transactions is via the mobile platform in Sweden (Postnord.com, 2015). From this it can be inferred that m-shopping fashion apps being part of the mobile platform are not widely accepted. Hence, the users of these apps are likely to be part of the relatively earlier adopters of innovativeness in a social system. “Adopter categories are classifications of the members of a social system on the basis of innovativeness, the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than other members of a system” (Rogers, 2003, p. 22). The relatively earlier adopters of innovativeness in a social system also differ from later adopters as they are characterized by a greater ability to cope with uncertainty and risk (Rogers, 1995), which can be an additional explanation why trust does not play an important role in predicting the willingness to use m-shopping fashion apps.

Furthermore, Groß (2015b) empirically verified that the trust in the m-vendor affects the intention to use m-shopping in Germany. Another reason why trust does not affect the behavioral intention to use m-shopping fashion apps in Sweden could be that Swedish society due to cultural differences is less concerned compared to Germany on uncertainty avoidance. Sweden scores much lower on Hofstede’s uncertainty avoidance dimension of national culture compared to Germany (Geert-hofstede.com, 2016; Hofstede, 1991). Geert Hofstede (1983) by studying how values in the work place are influenced by national culture, founded a model of national culture that consist of four dimensions: power distance, uncertainty avoidance, individualism-collectivism, and masculinity-femininity. The dimension of uncertainty avoidance is useful in enlightening why trust does not play a significant role in influencing the willingness to use the apps in Sweden. Uncertainty avoidance refers “to the degree to which a society prefers predictability, security and stability” (Gooderham & Nordhaug, 2003, p. 132). Sweden scores relatively low on the Hofstede’s uncertainty avoidance index comparing to Germany, were the trust factor was empirically validated. Most importantly, countries with weak uncertainty avoidance are characterized by having more willingness to take risks and perceiving uncertain situations as rather acceptable (Gooderham & Nordhaug, 2003).
6.2 Managerial Implications

The managerial practical implications from this research are that managers and marketers should pay special attention to Performance Expectancy, Habit, Facilitating Conditions and Hedonic Motivation factors, and should ensure that these factors are met, in order to increase the acceptance and usage of m-shopping fashion apps.

Since Performance Expectancy is the most significant factor in affecting the intention to use m-shopping fashion apps it is important that marketers and retailers when designing their m-shopping fashion app focus on features that will make m-shopping fashion apps useful for the users, provide them with quality information about fashion products and trends, exploit to the fullest the unique features of mobile apps such as the ability to shop and browse anytime, anywhere, use the bar scanner, locate the nearest stores, receive personalized notifications regarding the latest fashion products and so on. Because the better the m-shopping fashion apps will support the users fashion shopping activities the more will these apps be attractive. Managers should make sure the m-shopping fashion apps add value to their users by ensuring that they help them increase their performance, by helping them save on shopping time, obtain promotion information, and receive customized fashion products information. Furthermore Habit is an important factor therefore managers when designing m-shopping fashion apps could refer to the similar design of prevalent computer software, and popular shopping websites, as the more people are used to using a certain technology, it becomes quickly a routine and habit. Also, facilitating conditions is a factor that should not be neglected. Marketers should provide online and offline help and support for using the apps, tutorials, FAQs as this facilitates the usage of the apps. Likewise, when it comes to Hedonic Motivation managers could enforce functions on the m-shopping fashion apps that would create enjoyable and entertaining shopping experience. For instance, Hedonic Motivation can increase by adding animated features, fun content, and interaction to the m-shopping fashion app.

6.3 Discussion of Method

The proposed research model is reliable which was proved though statistical analysis. However not all the independent factors of the proposed research model were found to have a significant linear relationship with the independent variable, and four hypothesis were rejected. Therefore the findings of this research do not fully correspond to the original UTAUT 2 model, which was expected till an extent as this study investigated the behavioral intention factor for a different context (m-shopping fashion apps), that was not addressed previously by studies.

Due to the time constrain the authors prioritized getting sufficient number of respondents to be able to carry out statistics analysis, and hence the convenience sampling method was used. Moreover, if the survey contained less questions the number of respondents could have been increased. However it was not possible to delete some of the survey questions, as they had their own factor they corresponded to, and were taken from
previous research. In these previous research, these survey questions had been proved to be significant for their given factor. Thus, deleting some questions would result in lower reliability and validity of the collected data. Moreover, the majority of the respondents are of relatively young age (see Appendix IV), however this study did not pursue the investigation on the effect that the moderating variables (such as age, gender...etc.) have on the behavioral intention to use m-shopping fashion apps, as a larger sample and more time was required to be able to efficiently conduct such a research.

6.4 Strength and Weakness of the Research

This research work contributes to a theoretical understanding of the factors that drive the intention to use of m-shopping fashion apps. Therefore the purpose of this study has been fulfilled. Some of the strengths of this study are that, the multiple linear regression analysis (see Appendix VI Model Summary) showed that 66% (adjusted $R^2$=0.666) of the total variability in the behavioral intention to use m-shopping fashion apps is explained by the independent factors in the research model. This indicates that the model of this study is useful, and has good predictive value for the behavioral intention to use the m-shopping fashion apps from a consumer’s perspective. Therefore the model of this study can be applied for further studies on m-shopping fashion apps. Also other mobile shopping applications studies could make use of this research’s model for future research.

Moreover this study identified four factors that affect the behavioral intention to use m-shopping fashion apps in Sweden. And the results indicate that performance expectancy is the factor that has the strongest influence on the behavioral intention to use m-shopping fashion apps. Another advantage of this study is that it examined m-shopping fashion apps’ technology acceptance, which is a context that the research has not previously addressed despite that the mobile applications now more than ever play an important part of our everyday life (Kim, et al., 2014). Likewise the study was conducted by applying the UTAUT 2 model developed by Venkatesh et al. (2012) as a base for the proposed research model, while previous technology acceptance studies applied older technology acceptance models. This study was conducted in Sweden, which is one of the leading countries in online shopping (Postnord.com, 2015). Hence it was benefical to study the factors that affect users’ behavioral intention to use m-shopping fashion apps in a country that uses online shopping however m-shopping fashion apps and the mobile platform is not yet widely accepted (Postnord.com, 2015). Moreover this research provides implications for management, and future research.

However, there are also some weaknesses present in the study. The study used non-probability sampling, which is an inferior method compared to probability sampling. This method however was perceived as necessary for the authors due to the population of the study being unknown, and a limited time frame that the primary data collection had to be gathered. This method enabled the authors to conduct the study on m-shopping fashion apps and collect the necessary sample size. The collection of the questionnaire was
extremely challenging because to access the users of m-shopping fashion apps in Sweden took a lot of time.

Even though 110 surveys have been collected, if more surveys were collected the credibility of the findings could have been increased further. Furthermore, the results of the study are limited due to the differences in the demographic variables (eg. age, gender…etc.) of the respondents. Moreover the predictability of the research model could have been increased if more independent factors have been proposed in our research model to affect the behavioral intention to use m-shopping fashion apps. However, more factors would make the questionnaire longer and made the respondents less willing to answer the questionnaire making the primary data collection less manageable.

6.5 Suggestion for Further Research

Apart from the managerial implications, this study provides some implications for scholars too. This study proposed a model for measuring the behavioral intention to use m-shopping fashion apps based on the UTAUT 2. By conducing reliability analysis, testing the proposed research model empirically, it has been proved that the model is valid and reliable for m-shopping fashion apps. Therefore the research model of this study could be applied to investigate the factors that affect the behavioral intention to use other m-shopping applications and for future studies on m-shopping fashion apps.

This study shed light upon the factors that affect the behavioral intention to use m-shopping fashion apps in Sweden, hence it is recommended to explore the proposed research model and results in other cultural contexts. Furthermore, researchers could study the acceptance of same technology in different countries to explain the role that the factor of national culture plays in the acceptance of technology. Future research could address how factors that affect the behavioral intention to use m-shopping fashion apps differ for different age, gender and experience groups. Likewise it would be interesting to address the investigation of how the acceptance of technology differs among users and non-users of a certain technology.

Likewise, future studies should strive to optimize the UTAUT 2 model by expanding it with additional variables that either directly or indirectly impact the behavioral intention to use a technology or are moderating variables. More factors that affect the acceptance of m-shopping fashion apps should be developed, and tested. It would be useful that future studies would interview the users of m-shopping fashion apps, to develop additional factors that affect their acceptance, as there is a gap in the literature when it comes to m-shopping fashion apps and mobile applications in general.
References


Murphy T. (2011). App vs. Website: Banks offering mobile banking services face a choice: Should they develop mobile applications, a mobile website or both? Bank Technology News, 24(06), 39.


**Suggested Readings**


Appendices

Appendix I Questionnaire

We are a bachelor thesis group doing research on mobile shopping fashion apps. Please help us by filling out this short survey with total of 35 questions. Thank you for your answers and support.

In this survey, by m-shopping fashion apps we mean mobile shopping applications for buying and browsing fashion goods, which can be installed on the mobile devices, some examples are the H&M, Zalando, Mango, Zara apps and so on.

1. Do you use m-shopping fashion apps?
   ○ Yes

2. How long have you been using m-shopping fashion apps?
   ○ 1-6 month(s)
   ○ 7-12 months
   ○ 1-2 years
   ○ More than 2 years

3. Your age is
   ○ below 20
   ○ 20-30
   ○ 31-40
   ○ Above 40

4. Your gender is
   ○ Female
   ○ Male

For each question below, please select the answer that presents how you feel about the m-shopping fashion apps you have been using.
5. I intent to continue using m-shopping fashion apps in the future.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

6. I will always try to use m-shopping fashion apps.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

7. I plan to continue to use m-shopping fashion apps frequently.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

8. I find using m-shopping fashion apps useful.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

9. To use m-shopping fashion apps helps me accomplish things more quickly.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

10. Using m-shopping fashion apps increases my productivity.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

11. Learning how to use m-shopping fashion apps is easy for me.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

12. My interaction with m-shopping fashion apps is clear and understandable.

1 2 3 4 5 6 7
13. I find m-shopping fashion apps easy to use.
   1 2 3 4 5 6 7

14. It is easy for me to become skillful at using m-shopping fashion apps.
   1 2 3 4 5 6 7

15. People who are important to me think that I should use m-shopping fashion apps.
   1 2 3 4 5 6 7

16. People who influence my behavior think that I should use m-shopping fashion apps.
   1 2 3 4 5 6 7

17. People whose opinions that I value prefer that I use m-shopping fashion apps.
   1 2 3 4 5 6 7

18. I have the resources necessary to use m-shopping fashion apps.
   1 2 3 4 5 6 7

19. I have the necessary knowledge to use m-shopping fashion apps.
   1 2 3 4 5 6 7
20. M-shopping fashion apps are compatible with other technologies I use.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

21. I can get help from others when I have difficulties using m-shopping fashion apps.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

22. To use m-shopping fashion apps is fun.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

23. To use m-shopping fashion apps is enjoyable.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

24. To use m-shopping fashion apps is very entertaining.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

25. M-shopping fashion apps are reasonably priced.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

26. M-shopping fashion apps are a good value for money.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

27. At the current price for using these apps (such as internet, smartphone maintenance, price of apps...), good value for money is provided.
28. The use of m-shopping fashion apps has become a habit for me.

29. I am addicted to using m-shopping fashion apps.

30. I must use m-shopping fashion apps.

31. Based on my previous experience with fashion m-vendors, I think they are honest.

32. I think they are trustworthy.

33. I think they provide good customer services.

34. I think they care about their customers and take their concerns seriously.
35. I think they keep customers’ interests in mind.

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ Strongly agree

Congratulations! You have completed the survey! We appreciate your answers and thank you!

Appendix II Reliability Statistics

<table>
<thead>
<tr>
<th>Overall Reliability Statistics</th>
<th>Cronbach's Alpha</th>
<th>Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
<td>.944</td>
<td>.949</td>
<td>31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Behavioural Intention Reliability Statistics</th>
<th>Cronbach's Alpha</th>
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<th>N of Items</th>
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### Effort Expectancy Reliability Statistics

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### Social Influence Reliability Statistics

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### Facilitating Conditions Reliability Statistics

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### Hedonic Motivation Reliability Statistics

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### Price Value Reliability Statistics

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### Trust Reliability Statistics

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## Appendix III Respondent Gender Distribution

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<th>Valid Percent</th>
<th>Cumulative Percent</th>
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<tr>
<td>Valid</td>
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<td>65</td>
<td>59,1</td>
<td>59,1</td>
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<tr>
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<td>male</td>
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## Appendix IV Respondent Age Distribution

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<td>below 20</td>
<td>26</td>
<td>23,6</td>
<td>23,6</td>
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<tr>
<td>20-30</td>
<td>68</td>
<td>61,8</td>
<td>61,8</td>
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<td>31-40</td>
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## Appendix V Duration of Use of M-shopping Fashion Apps

<table>
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<th>Duration</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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<td>Valid</td>
<td>1-6 months</td>
<td>49</td>
<td>44,5</td>
<td>44,5</td>
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<tr>
<td></td>
<td>7-12 months</td>
<td>43</td>
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<td>1-2 years</td>
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<td>95,5</td>
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Appendix VI Model Summary

Model Summary

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<th>R</th>
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<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
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<tr>
<td>1</td>
<td>.831 a</td>
<td>.691</td>
<td>.665</td>
<td>1.58155</td>
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a. Predictors: (Constant), Habit, Price Value, Effort Expectancy, Social Influence, Hedonic Motivation, Facilitating Condition, Performance Expectancy, Trust

b. Dependent Variable: Behavioral Intention

Appendix VII ANOVA

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
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<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<tr>
<td>1</td>
<td>Regression</td>
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<td>70,507</td>
<td>28,138</td>
<td>.000 b</td>
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<td>101</td>
<td>2,501</td>
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<td>Total</td>
<td>109</td>
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</table>

a. Dependent Variable: Behavioral Intention

b. Predictors: (Constant), Habit, Price Value, Effort Expectancy, Social Influence, Hedonic Motivation, Facilitating Conditions, Performance Expectancy, Trust

Appendix VIII Coefficients

Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Correlations</th>
<th>Collinearly Statistics</th>
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<td></td>
<td>R</td>
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<td>Beta</td>
<td>t</td>
<td>Correlations</td>
<td>Collinearly Statistics</td>
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<tr>
<td>1</td>
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<td>.093</td>
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a. Dependent Variable: Behavioral Intention
### Appendix IX Correlations

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<th>Ef</th>
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<td>0.332</td>
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<td>0.571</td>
<td>0.334</td>
<td>0.436</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<td><strong>Trust</strong> Pearson Correlation</td>
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<td>0.568</td>
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<td>0.00</td>
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<td><strong>Behavioral Intention</strong> Pearson Correlation</td>
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</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
*+ Correlation is significant at the 0.01 level (2-tailed).

---

### Appendix X Normal P-P Plot of Regression Standardized Residual

**Dependent Variable: Behavioral Intention**

![Normal P-P Plot of Regression Standardized Residual](image)
## Appendix XI Residuals Statistics

<table>
<thead>
<tr>
<th>Residual Statistics$^a$</th>
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<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<td>1,063</td>
<td>.000</td>
<td>1,000</td>
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<tr>
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<td>.644</td>
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<td>.120</td>
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</tr>
<tr>
<td>Predicted Value</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted Predicted Value</td>
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<td>16,1107</td>
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$^a$ Dependent Variable: Behavioral intention