Identification of Factors Influencing the Adoption of Mobile Payments

A qualitative research study on the Swish mPayment App
Abstract
Information Communication Systems (ICT) has brought about a change in the way people handle transactions. The payment systems have undergone an incredible evolution over the passing years from physical transfer of cash to exchanging money in a digital form. Mobile Payment (mPayment) which is a branch of mobile commerce is one of the areas that is becoming more and more popular these days. In Sweden, there is a growing success of mPayment system such as SEQR, Swish amongst others. However, a huge chunk of the population is yet to adopt the system. Hence, there is a need to identify factors that influence peoples’ decisions to adopt or not to adopt the mPayment system like Swish. This study aimed at identifying the factors that influence the adoption of mPayment system amongst the consumers in Sweden.

The research question was: what factors influence the adoption of Swish mobile payment app among the consumers in Sweden? A qualitative research was conducted. A semi-structured interview was used as the data collection method. This data collection method was used because this research work seeks to identify the feelings, opinions and experiences of people and this method fits best into the research work. The thematic analysis approach was used for the data analysis.

The study showed that impact of the system on day-to-day activities, speculation of risk and trust of the system, integration to lifestyle, speculation of user friendliness and flexibility, age and peer influence are the factors that influence the adoption of swish mobile payment app amongst the consumers in Sweden. Furthermore, the research was viewed through the lens of the UTAUT by comparing the findings of the study and how it relates to the determinants and moderating factors of the model.

In conclusion, this study has contributed to the field of ICT specifically the mobile technology field. The conceptual model that was built will be useful for developers and researchers to be able to know the areas to put in more efforts and areas to keep maintaining. Furthermore, this research was conducted within a country that has experience with m-payment apps. Hence, this study can serve as an example for other countries moving towards higher smartphone and application usage.

Keywords
ICT, mPayment, P2P, qualitative, semi-structured interviews, swish, thematic analysis, UTAUT
Acknowledgement
My success story won’t be complete without appreciating my husband who was a great support system to me especially during my exams and deadlines. I am also grateful to my beautiful daughter, Teniola, for being understanding and patient with me especially during the late midnight readings. Her smiles kept me going and I feel so blessed to have these two in my life.

Many thanks to my two supervisors, Elissavet Kartaroglou and Despina Fyntanoglou. They were very helpful with tips and support throughout the course of my thesis. Their comments, suggestions and feedback kept me going and made me better in my chosen research area.

Overall, I am grateful to my lecturers, colleagues, group members and friends for their moral support and words of encouragement. Those were my driving forces each day till I finally completed the programme.
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<tr>
<td>B2B</td>
<td>Business to Business</td>
</tr>
<tr>
<td>B2C</td>
<td>Business to Consumer</td>
</tr>
<tr>
<td>B2G</td>
<td>Business to Government</td>
</tr>
<tr>
<td>CSS</td>
<td>Clearing and Settlement System</td>
</tr>
<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
</tr>
<tr>
<td>IDT</td>
<td>Innovation Diffusion Theory</td>
</tr>
<tr>
<td>ME</td>
<td>Mobile Everywhere</td>
</tr>
<tr>
<td>mPayment</td>
<td>Mobile Payment</td>
</tr>
<tr>
<td>NFC</td>
<td>Near Field Communication</td>
</tr>
<tr>
<td>P2P</td>
<td>Person to Person/ Peer-to-Peer</td>
</tr>
<tr>
<td>POS</td>
<td>Point of Sale</td>
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<td>RFID</td>
<td>Radio Frequency Identification</td>
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<tr>
<td>TAM</td>
<td>Technology Acceptance Model</td>
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<tr>
<td>TPB</td>
<td>Theory of Planned Behaviour</td>
</tr>
<tr>
<td>TRA</td>
<td>Theory of Reasoned Action</td>
</tr>
<tr>
<td>UTAUT</td>
<td>Unified Theory on Acceptance and Use of Technology</td>
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</tbody>
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1. Introduction

This chapter provides an introduction of what the study is about and the motivation behind the research. It is divided into four parts: Background, Problem Discussion, Research Questions and Purpose Statement.

1.1 Background

The concurrent rise of Information Communication Technology (ICT) has brought about a change in the way people handle transactions. The payment systems have undergone an incredible evolution over the years passing from a physical transfer of cash to exchanging money in a digital form. E-commerce is the use of current and emerging information communication technologies (ICTs) to conduct business (Gharegozi et al., 2011). E-commerce involves selling goods and products either from Peer to Peer (P2P), Business to Consumer (B2C) or Business to Government (B2G) without physical interaction. The overall growth of e-commerce has been drastic alongside providing a cost effective method of buying and selling (Gharegozi et al., 2011). Driven by the widespread and understanding of the Internet’s capabilities, the power of electronic commerce, and advances in wireless technologies and devices, mobile commerce (m-commerce) emerged and it is rapidly approaching the business forefront (Senn, 2000). This method of transactions refers to one type of e-payment, performed through mobile device(s) (such as mobile phones, smartphones, pads, tablets, etc.) for payments or money transfers (Vizzarri and Vatalaro, 2014). The emergence of m-commerce has brought about new sales opportunities online. Furthermore, customers can interact with the brand much easier regardless of location or hour (Pavel and Vlad, 2016).

Mobile Payment (mPayment) is a branch of m-commerce which is also emerging and an important application of mobile commerce. It refers to payments for goods, services, and bills using a mobile device through the adoption of wireless and other communication technologies (Dahlberg et al., 2008). This system has been suggested as a solution to facilitate micro-payments in electronic and mobile commerce world. It also provides an alternative for the diminishing use of cash at POS (Begonha et al., 2002). According to Zhang et al (2013), using mobile devices to pay for products and services not only eliminates traditionally cumbersome payment methods but also enables consumers to make payment anytime, anywhere. According to eMarketers (2016), worldwide smartphone usage will grow by 61.1% in 2018. This corresponds to a total of 4.57 billion people using smartphones for their day-in, day-out activities. As the worldwide usage of smartphones has explosively increased in the recent years, mobile application software (apps) has had the same considerably growth in popularity (Hsiao et al., 2016). It is therefore not surprising to see that mPayment system has become popular and also gaining ground.

In recent times, there have been a growing number of successful mobile payment platforms around the world such as SEQR and Swish in Sweden, Square Cash in the US, mPesa in Kenya, as well as global services such as Apple Pay and Google Wallet. In 2012, a cooperation between six of the biggest banks in Sweden led to the launching of a new mobile app that was offering easy and fast transfer between different individuals’ bank accounts (Getswish, 2016). Danske Bank, Handelsbanken, Länsförsäkringar, Nordea, SEB, Swedbank and Sparbankerna were the original banks that offered this service to their customers and also the owners of the company Getswish AB. Later, Skandia, Ica Banken, Sparbanken Syd and Sparbanken Öresund joined the group.
The app has been developed further and today it is also possible for companies, associations and other organizations to receive payments from their customers or members. All that is needed to be able to use the app is a smartphone and a mobile banking identification, which the customers can order from their bank’s webpage. Over the years, the Swish mobile app has emerged the dominant mobile payment system and it is experiencing rapid adoption and growth by retailers and customers. According to Arvidsson (2013), Sweden is gradually shifting to being a cashless society.

Furthermore, the trend towards app usage and cashless society makes mPayment a topic of great interest especially when considering the fact that this technology is gaining users. However, in Sweden, while millions of people are reportedly using Swish for payments, a huge chunk of the populace are yet to adopt the platform (Gustavsson, 2016). Hence, it will be beneficial to identify factors that inform the decisions of consumers to adopt or not to adopt the mPayment system like Swish. This study aims at identifying the factors that motivate or prohibits consumers from using the mPayment technology specifically the swish app in Sweden.

1.2 Previous Related Work
Mobile payment technology is an emerging innovation in ecommerce world. Though there are limited research work that has been done in this area. However, in order to gain further insight into the system, few prior literatures on mobile payments adoption have been reviewed.

Yang et al. (2012) studied the adoption of mobile payment services overtime in China using a model that reflects the characteristics and usage contexts. The model was empirically tested by using structural equation modeling on datasets consisting of 483 potential adopters and 156 current users of a mobile payment service in China. The results showed that behavioral beliefs in combination with social influences and personal traits are all important determinants for mobile payment services adoption and use, but their impacts on behavioral intention do vary across in different stages.

Chen and Wu (2017) investigated the factors affecting users’ satisfaction with mobile payments. The study was based on technology acceptance model to explore the impact of external variables. The data analysis methods used in this study were descriptive statistical analysis, reliability and validity analysis. Pearson correlation analysis and regression analysis were also used to verify their hypotheses. The results of the study showed that mPayment users’ perception of convenience in mPayment is high. Furthermore, the compatibility of mobile payment has a significant effect on perceived usefulness and perceived ease of use.

In addition, Alm (2016) presented a report on an on-going study that seeks to determine what consumers and retailers think about mobile payment systems in Sweden. The author introduced an extended co-design model for studying consumers’ purchase and payment behaviour using digital tools. Findings from the initial analysis showed that consumers look for convenience while retailers look for improved cash flow and lower transaction fees. The results showed that the adoption of mobile payment systems like SEQR and others are still low.
Furthermore, Tian and Dong (2013) investigated the theoretical constructs involved in the acceptance of innovation especially mPayment services. A research model was built based on Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB) and Innovation Diffusion of Theory (IDT). The outcome showed that perceived usefulness, personal innovations and compatibility has a direct influence on users’ attitude while opportunity cost and perceived risks have direct negative effect on the acceptance of the service.

Factors affecting the successful introduction of mPayment system was investigated by Van der Heijden (2002). Participants in Sweden and Netherlands were interviewed for this research work. The results showed that while many factors affect the successful introduction of mPayment system. Ease of use and perceived risk topped the list from the consumer’s perspective while transaction fees and ease of use were the major determinants from the merchant’s perspective.

Most of the previous related studies, drifted towards a specific aspect of mPayment system such as the adoption of mPayment services overtime in China. Other research work also focused on the experience of people who are using or have adopted the system. In addition, according to Kabir et al., (2015), even though this research area is still new, majority of the studies were conducted through quantitative studies. The consumer acceptance can be better understood if applied from a different lens. Therefore, this study aimed at identifying the factors that influence consumer acceptance of the mPayment system using a qualitative approach.

1.3 Problem Discussion
A number of research work that have been carried out on mPayment system as explained in the previous related work above, all had differing focuses. Some addressed specific aspects of mobile payment adoption (Chen and Wu, 2017; Liu, 2012; Van der Heijden, 2002 & Schierz et al., 2010), some focused on users who already have mobile payment systems (Alm 2016), while some predicted future users’ intention towards mPayment (Berrado et al., 2013), the application adoption in specific countries such as China (Yang et al. 2012) including strategies that banks can adopt to mPayment systems in order to make the system remain competitive (Jakobsson 2017). Furthermore, according to Liu et al., (2015), mPayment is an ever changing industry, hence this area of study requires continued research. Heng (2004) also stated that even though there has been an introduction of innovative methods in the mPayment world, the majority of novel e-payments are still rejected by consumers failing to gain acceptance. Therefore, there is a need to understand the reasons why these systems are yet to gain acceptance by consumers.

In addition, in Sweden, even though there is a trend that cashless policy might soon take over the country (BBC News 2017), not a lot of research work have been done to know the opinions of the consumers in relation to what factors motivate their choice or otherwise. The few research work done, was either to seek what consumers think about the system in Sweden (Alm 2016) or comparison between the mPayment system and online banking (Jakobsson, 2017). Markendahl and Apanasevic (2013) in their research investigated the trends in mPayment market in Sweden, they analyzed mPayment systems and looked into the activities, roles and responsibilities of different actors.
This shows that more research work still needs to be done in the area of mPayment system in relation to the consumers. It is important that this research work is done in order for the the mPayment providers such as banks and merchants to understand the demands of their consumers and also increase the demand of the system. Hence this research work aims to identify the factors that influence the adoption of mPayment system within the context of Swish mobile app in Sweden. The focus of this research work is in Sweden due to the relevance of cashless payment in the country.

1.4 Purpose and Research Question

It is important to study and understand the factors that influence the adoption of mPayment system among the consumers. This area of study is an important research topic area because there is still a lack of research work done in this area as many still focus on other E-payment methods such as online banking. Although this area is new, it is important to note that this research will incorporate similar context of technology adoption but through the qualitative lens. This will shed more light on the topic and also give a deeper understanding to this research area. These factors when identified, will be useful to organizations, companies and most importantly financial institutions on the factors that are important to their consumers and on the other hand an eye opener on the reasons why some consumers are yet to adopt the system.

The main aim of this research study is to identify the factors that influence the adoption of mPayment system like Swish among the consumers in Sweden.

In order to achieve the aim and objective of this research study, the research questions that would be explored in this study is:

~ What factors influence the adoption of Swish mobile payment app among the consumers in Sweden?

1.5 Topic Justification

It is important to investigate both the factors that motivate people or otherwise to adopt the mPayment system because it is an important application of mobile commerce which has grown to some extent and is still growing. According to Zhou (2011), mPayment is an emerging technology that has not yet received widespread acceptance. Furthermore, Arvidsson (2013) in his research mentioned that, Sweden is gradually shifting to being a cashless society. Also, Sveriges Rikbank (2014) in a report stated that people in Sweden are beginning to forgo the use of cash in favor of card payments and other cashless means of payment. In addition, just as the mPayment system has been experiencing a huge adoption rate, it is still facing a lot of challenges such as strict regulatory policies, lack of widespread merchant acceptance, and perceived risks (Mallat, 2007). Hence a study on these contributing factors is essential. This study will be beneficial to both the consumers and the providers of mPayment systems like Swish. For example, providers of mPayment systems can use the findings to improve the design of their systems while the consumers will be able to make more informed decisions about the adoption and use of mPayment systems.
1.6 Scope and Limitations
The scope of this study was to investigate the factors that influence the choice of the consumers to adopt or not to adopt the swish mPayment app in Sweden. The attention of this research work was directed to the people who were familiar with the Swish App.

The limitations of this research work was that the study mainly focused on the consumers’ perspective (Person to Person, P2P) and not the retailers’ (Business to Business, B2B and Business to Consumer, B2C). Also, the interview that was conducted to identify these factors was done and analyzed based on the consumer’s point of view. In addition, only the mPayments done specifically through the Swish mobile application was looked into and not other types of mPayments such as mobile wallet, Paypal or Serve.

In relation to the choice of theory, there is a wide spectrum of technology that has been utilized in the previous research. However, this research work will only be adopting the theory that is most relevant to the research topic and specifically in relation to the Swish App.

1.7 Disposition of the Thesis
The rest of the thesis is organized within its five chapters as follows:

**Chapter 2 – Literature Review**
This chapter presents the literature review that this research is based on. Mobile payment applications, mobile payment system in Sweden, the swish app, theoretical background and the conceptual framework model that will be built and used in this research were also discussed in detail here.

**Chapter 3 – Methodology**
In this chapter, the philosophical tradition and methodological approach of this research work were presented here. Furthermore, the research setting, data collection procedure and research strategy were discussed in detail. There is also the data analysis and the chapter was concluded with the reliability, validity and ethical considerations of the study.

**Chapter 4 – Empirical Findings**
In this chapter, the empirical findings from the interviews were presented. The chapter was concluded with an overview of the empirical findings and themes.

**Chapter 5 – Discussion**
In this chapter, the findings of the study were thoroughly discussed based on the research question. Here the aims and objectives of the research was put into consideration and the outcome of the research work was presented.

**Chapter 6 – Conclusion**
This chapter dealt with the summary of the study. The contribution of the researcher and suggestions for future research work were also presented here.
2. Literature Review

This chapter explains the theory and terminologies behind this research coupled with an explanation of the proposition that will be used to carry out the research purpose.

2.1 Mobile Payment Applications

Mobile payment is the use of mobile phones to conduct a transaction. The process involves money being transferred from a payer to a receiver directly via a mobile app. M-payments can be considered as substitutes for cash, credit cards and online banking (Kim et al., 2010). mPayment is in its early stage was cooperated by banks, companies, wireless carriers amongst others. The adoption of Smartphones has led to the online banking and online shopping consumer before its transition into using Smartphone for transactions.

In the early 21st century, mobile banking originated from the SMS text messaging, which was supported by the 2G mobile technology. SMS mobile banking was a way to make the user’s cellular phone a banking tool through text messaging of push and pull messages (Rotimi et al. 2007). However, with the advent of 3G mobile technology, users started to conduct internet banking with their internet enabled mobile devices. This method is very similar to internet banking/internet payment. Mobile users use wireless internet access for their payment. According to a report by comScore (2014), a leading digital market analysis company, U.S Smartphone penetration rate was 65% at the end of 2013.

Over the years, a new payment method emerged called the mobile wallet. This involves using the mobile phone as a wallet which includes all financial information like: credit card numbers, bank account numbers, loyalty card numbers, and prepaid card numbers. A popular example is Google Wallet. According to Shin et al (2014), the mobile phone acts as a credit card, not by swiping the phone, but by tapping or just approaching credit card reader terminals. Near Field Communications technology like RFID (Radio Frequency Identification) is used in this method. RFID technology allows readers to capture this information simultaneously through Near Field Communication (NFC). However, due to the popularity of smartphones, the newest forms of mPayments are now developed in conjunction with smartphones. Smartphone users can now transfer money to a friend, family or even buy items by just knowing the phone number of the recipient. SEQR and Swish in Sweden, Square Cash and Chase Quickpay in the US, mPesa in Kenya and Kakao Talk in Korea are examples of some finance industries implementing this system. These applications enable monetary transfers to individuals or businesses based on mobile platform but some of them can also adopt the function of a credit card, scanning a QR code or using the NFC technology (Markendahl and Apanasevic, 2013).

Mobile payment system is becoming popular. It enables the user not only to pay in store and online, but also functions as a substitute of a wallet filled with coupons, loyalty cards and bank statements. They also provide convenience, flexibility and feasibility in terms of mobile commerce, which should lead to increased usage and therefore further enhancement of m-payments in the future (Mallat, 2007). However, despite the popularity and proliferation of mobile phones in everyday use, mPayment still suffers from varying levels of popularity in every age group or social category (Kolaki, 2017). According to Blöchlinger (2012), the advantages mPayment system are increased speed, increased convenience, flexibility, convenience, decrease of physical cash, generation of new revenues and cost saving.
However, while there are so many usefulness and advantages of this system, it also has disadvantages such as loss of mobile phone, security concerns, slow diffusion, technological complexity amongst others (Blöchlinger, 2012).

This shows that despite the flexibility, convenience and other advantages that the system provides, it is not a perfect system and still lacks wide usage and acceptance. Hence, more research study still needs to be done to make this system more relevant and acceptable amongst the consumers. Otherwise, it may not have an impact on consumers’ payment behaviour in the nearest future.

2.2 Peer-to-Peer (P2P) Mobile Payment

Peer to Peer or Person to Person mobile payment acts like a middleman. It helps people transfer money from their account to another person’s account by using a software application.

The typical P2P money transfer process as depicted in Figure 2.1 involves two persons, the Sender and the Receiver, the Issuing bank with whom the Sender holds an account with an associated mobile phone number, the Acquiring bank with whom the Receiver holds an account with an associated mobile phone number, the Clearing and Settlement System (CSS) as well as the mPayment System platform. Both Sender and Receiver also installs the mPayment App on their mobile phone and register with their phone number and bank account information.

![Diagram of P2P mPayment Process]

*Figure 2.1: Picture above shows the P2P mPayment Process sketched by me*
To carry out a transfer, the Sender will initiate a transaction to transfer X amount to the Receiver via the mPayment App on their mobile by specifying the phone number of the Receiver. The request is transmitted through the mPayment system to the CSS. The CSS issues a request to the Issuing bank to debit X amount from the Sender’s account into a temporary account. Once the CSS receives an acknowledgment from the Issuing bank, it then makes a request to the Receiver’s bank, the Acquiring bank, to credit the Receiver’s account with X amount. After the acknowledgment, the CSS notifies the Sender via mPayment App on their mobile phone that the transfer is successful while the Receiver also receives a notification stating that they have received a new transfer. The mobile money transfer transaction is now complete.

2.2.1 Mobile Payment Systems in Sweden
In Sweden, a number of mobile payment solutions provide an opportunity to make P2P money transfer such as swish, mobile banking, universal mobile everywhere, ME, WyWallet and SEQR. All these systems provide the opportunity to transfer money via the mobile phone. In Table 2.1, some of the various types of mPayment system that exist in Sweden, the company that provides these mPayment service, the supported payment type as well as other parties involved have been presented.

Swish is a P2P mobile app that allows real time transfer by using mobile phone numbers which are linked to corresponding bank accounts (Getswish, 2016). Mobile banking is provided by all banks and allows money to be transferred directly between personal bank accounts. Universal Mobile Everywhere (ME) is independent of mobile network operators (Accumulate, 2013). ME is managed by Accumulate company. They provide direct relation with the end consumers and mobile payment interface. Here, the bank manages and perform the money transfers. WyWallet, was launched by 4T Sweden, a joint venture of the main Swedish mobile operators Telia, Tele2, Telenor, and Three (Clark, 2012). The payment solution is based on Accumulate’s ME mobile financial service platform (Clark, 2012). In order to perform a P2P transfer, a mobile phone number would be required. SEQR developed in August 2012 (Seamless, 2012) also gives the opportunity for P2P payment. Consumers have to register a credit account at a financial service company collector. Within SEQR application, the specified amount of money is directly transferred to the money recipient’s bank account by specifying the corresponding mobile phone number (Seamless, 2012). Collector withdraws money from the sender’s billing account.

However, in this research study, Swish mPayment system will be chosen to be investigated over the other mPayments systems in Sweden. This is because millions of people are reportedly using the system for payment (Gustavsson, 2016) over other existing systems. Hence, it is expected that using Swish will be a representative of the state of mPayment system in Sweden.
Table 2.1 – Existing mPayment Systems in Sweden (Adapted from: Markendahl, 2013, p. 7)

<table>
<thead>
<tr>
<th>Mobile Solution</th>
<th>Payment Service Provider</th>
<th>Payment Type</th>
<th>Other Parties Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swish</td>
<td>Danske bank, Handelsbanken, Länsförsäkringar Bank, Nordea, SEB, and Swedbank</td>
<td>Bank Account</td>
<td></td>
</tr>
<tr>
<td>Mobile Banking</td>
<td>Provided by all banks</td>
<td>Bank Account</td>
<td></td>
</tr>
<tr>
<td>ME</td>
<td>Accumulate</td>
<td>Bank account Bank card</td>
<td>Point (VeryFone company)</td>
</tr>
<tr>
<td>WyWallet</td>
<td>4T Sweden (Tele2, Telia, Telenor and 3)</td>
<td>Transfer between WyWallet accounts</td>
<td>PayEx and Accumulate</td>
</tr>
<tr>
<td>SEQR</td>
<td>Seamless</td>
<td>Transfer between SEQR accounts</td>
<td>Collector (billing)</td>
</tr>
</tbody>
</table>

2.2.2 Swish

Swish is a P2P money transfer mobile app created by Nordic Financial Institutions. In 2012, a co-operation between six of the biggest banks in Sweden led to the launching of the mobile app that offered easy and fast transfer between different individuals’ bank accounts (Getswish, 2016). Danske Bank, Handelsbanken, Länsförsäkringar, Nordea, SEB, Swedbank and Sparbankerna were the original banks that offered this service to their customers and also the owners of the company Getswish AB. Later, Skandia, Ica Banken, Sparbanken Syd och Sparbanken Öresund joined the group. The app has been developed further and today it is also possible for companies, associations and other organizations to receive payments from their customers or members. According to Getswish (2016), the app has around 5m of users. Transfer is instant, free of charge and it only works with SEK.

The Swish app has four features:

- **Events** – Where all received and sent transactions are saved for easy accessibility.
- **Favorites** – Where you save the number of people that you frequently swish to.
- **Say it to Swish** – Here, you can surprise a friend in form of a package. To see the amount, the recipient must open the package.
- **QR Codes** – With this feature, the information of the recipient will be filled in automatically when you scan the code. All you need to do is to approve the payment.

To use the service, one needs a smartphone, a bank ID, a Swedish bank account, the swish app and the phone number of the receiver. In order to be able to make use of the app to make payments, there is a step by step procedure (See Figure 2.2). First, when the swish app is launched, the first interface is the landing page. The sender will click on “betala” which means to pay. This will lead the sender to the next page where the amount to be sent will be specified as well as the phone number of the receiver with a description message option if need be to explain to the receiver the reason for the mPayment transfer.
After this stage, the mobile bank ID app opens to authenticate payment i.e. the bank account that the sender has linked with the Swish app will be opened so that the sender can grant permission. After the authentication, confirmation message will appear to indicate that the payment is successful and payment is transmitted without a fee instantly.

At its inception, Swish was primarily used for transfers between two persons who wanted to split the bill or for paying back debt in everyday life. Quite quickly, small businesses started using the app as it was convenient to use and free of charge. In July 2014, Swish expanded its coverage to businesses. For companies, the app costs between 1.5 and 2 SEK per transaction. After conquering the Consumer to Consumer transaction market, Swish has now been working to expand to eCommerce.

After a launch in January 2016, the Company had to pause its eCommerce solution due to technical difficulties. However, Swish relaunched its eCommerce app in January ’17 (Medium, 2017).

![Swish: Step by Step Payment](image)

Figure 2.2 – The Step by Step Payment Procedure of Swish. (Adapted from: Medium, 2017)

### 2.3 Theoretical Background

A number of theories/models have been introduced to explain computer-usage behaviour. Amongst the popular ones are Technology Acceptance Model (TAM), Innovation Diffusion Theory (IDT), Unified Theory on Acceptance and Use of Technology (UTAUT). This section explains the theory that will be used for the research study. The theory chosen has to be in accordance to the research question and objectives of the study.

#### 2.3.1 Technology Acceptance Model

The theoretical background of this study is mainly drawn from the Technology Acceptance Model (TAM). This model is mainly used to predict users’ acceptance of information systems and understand the motives and likely problems facing users of the system. It is a model that combines the Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB) by developing a generalized framework (Davis, 1989).
TAM has a far-reaching influence on followers who study individual adoption of innovation. Researchers usually build extended models by adding factors and modifying the constructs of the original model according to the specific situation and characteristic of research problems (Tian, 2013).

TAM is regarded as a model that explains usage intention better than others (Kim et al., 2010; Schierz et al., 2010). According to Davis (1989), among the many variables that may influence system use, previous research suggests two determinants that are especially important. First people tend to use or not use an application. This variable is referred to as perceived usefulness. i.e. the degree to which a person believes that using a particular system would enhance his or her job performance (Davis 1989, p. 320). This implies that mPayment systems needs to have a competitive advantage for it to be accepted.

Secondly, even if potential users believe that a given application is useful, they may at the same time believe that the system is too hard to use and the performance benefits are outweighed by the effort of using the application. This variable is referred to as perceived ease of use. i.e. the degree to which a person believes that using a particular system would be free of effort (Davis 1989, p. 320). This implies that the less effort required to use an mPayment app, the higher the likelihood of its adoption/acceptance. Even though the initial intention of TAM model was built for workplace but many researchers (Gefen et al, 2003; Moon and Kim, 2001 & Venkatesh and Davis, 2000) have applied TAM to different information systems and technologies. They found out that the user’s perception of knowledge and ease of use really affect the acceptance of information technology.

Although, the TAM model has various benefits such as excellent measurement properties, conciseness, generic to users’ and empirical soundness (Schierz et al., 2010) but the limitation of this model according to Assegaff (2015) is that it provides general information about ease of usefulness and it has also been criticized by many researchers for its parsimony.
2.3.2 **Innovation Diffusion Theory**

The second model that is also commonly used to explain and analyze the adoption rate of a new technology is the Innovation Diffusion Theory (IDT). The theory was introduced by Rogers (2003). Rogers defines Innovation diffusion as: diffusion is the process by which an innovation is disseminated through certain channels over time among social system members; an innovation is an idea, a practice, or an object that is considered new by individuals or other units.

Rogers (2003) proposed five stages that a potential adopter will go through (Figure 2.3). The stages are: Relative Advantages, Complexity, Triability, Observability and Compatibility.

1. **Relative Advantages** - The degree to which an innovation is seen as better than the idea, program, or product it replaces.
2. **Complexity** - How difficult the innovation is to understand and/or use.
3. **Triability** - The extent to which the innovation can be tested or experimented with before a commitment to adopt is made.
4. **Observability** - The extent to which the innovation provides tangible results.
5. **Compatibility** - How consistent the innovation is with the values, experiences, and needs of the potential adopters.

![Figure 2.4 – Innovation Diffusion Theory (Adapted from: Rogers, 2003)](image)

One criticism against the diffusion model has been its pro-innovation biasness. Diffusion theorists believe that the innovations should be adopted by all members of a social system or society, in a quick time frame and that such innovations should not be rejected or re-invented (Parakum and Ferdous, 2017). Furthermore, this model has some limitations such as it is a non-participatory approach, the negative impacts of the theory was not considered, it assumes adoption of innovation is always desirable (normative), it tends not to evaluate innovations from an end-user perspective and there are few systematic evaluations of the adoption and diffusion model, research on model does not tend to focus on systemic change (changes to the social system), rather the focus is on discrete technical changes (Van den Ban and Hawkins, 1998).
2.3.3 Unified Theory on Acceptance and Use of Technology Model

Unified Theory on Acceptance and Use of Technology (UTAUT) was formulated by Venkatesh et al. (2003). The model proposes that performance expectancy, effort expectancy, and social influence predict behavioral intention towards the acceptance of information technology (Taiwo and Downe, 2013). The theory further proposes that facilitating conditions and behavioral intention predicts use behavior in the acceptance of information technology (Taiwo and Downe, 2013). Ever since its inception, the theory has been assessed using different applications, and it has become a de facto model of measuring user acceptance.

Furthermore, according to Wasitarini and Tritawirasta (2015), the theory of the acceptance of information technology or UTAUT (Unified Theory of Acceptance and Use of Technology) is based on theories of technology-use behaviour and technology acceptance. This theoretical model aims to explain the interests of users for using information system and the behaviour of next users. The model explains some variables, such as performance expectancy, which is an act in which a person believes that using information system will help one achieve gains in performance. Effort expectancy is a level of convenience associated with the use of a system; Social influence is the degree to which an individual perceives the importance of working-environment factors (in this case the social sphere) in the use of the new system; so, it will influence or convince the individual that he or she also has to use the new system. Facilitating condition refers to a person's belief that organizational and technical infrastructure facilities are available to support the use of the system. Use behaviour is the intensity or frequency of users in using information technology.

![Unified Theory on Acceptance and Use of Technology](Adapted from Venkatesh et al., 2003, p. 447)
The model consists of four main independent variables – performance expectancy, effort expectancy, social influence and facilitating conditions. As shown in figure 2.5, behavioral intention and use behavior are treated as the dependent variables while, gender, age, experience and voluntariness of use are considered as factors that directly influence the relationship between the dependent variables and the independent variables. Although this model can be used to predict expectancy, intention and attitudes towards the acceptance of technology, it is a bit complicated as it encapsulates eight other research models predicting IT usage behavior and it has also been criticized for having many citations without actually using it (Foon and Fah, 2011 & Taiwo and Downe, 2013).

2.3.4 Conceptual Framework Selection

As described above, all the three models are relevant for predicting users’ acceptance of an information system. However, it has also been seen that all these models have their limitations and drawbacks. Hence the selection of the model that was used for analysis in this research work was based on the model which fits best the aim and objectives of the research study.

The UTAUT model was used for analysis over TAM and IDT in this research work. This is because of the versatility of UTAUT over TAM and IDT model such as the moderating factors that was introduced into the model as in age, experience, gender and voluntariness of use from the perspective of social psychology. These moderating factors will help address the problems of inconsistency and the weak power of previous models. It will also explain the behavioral differences of different groups of people. For m-commerce, these factors are especially important (Jun et al., 2008). Furthermore, one of the motives behind the creation of UTAUT was to overcome the drawbacks of the previous models and to arrive at a comprehensive understanding better than the previous models (Alharbi, 2014). Since UTAUT model incorporated various factors, it is the most comprehensive one with extensive inclusion of factors and powerful explanations. It is also considered as the most important theory for IT adoption research in IS fields in the future (Jun et al., 2008).

Furthermore, this selection of the theoretical framework according to Klein and Myers (1999, p.75) suggests that this model can be used as a “sensitizing device”. In other words, this model was used as a lens for which the research and data was viewed through. Although theoretical models such as UTAUT is predominantly associated with quantitative research methods, its utility to qualitative research can also be argued for. Stewart and Klein. (2016, p. 615) suggests that the use of theory for both quantitative and qualitative research is that it provides rationale for the study and defines the aim and research questions. It is also of use to develop data collection and provide a framework for analysis and interpretation of the data (Stewart and Klein, 2016, p. 615). The ability of theory to connect pieces of research data and generate findings that can be fitted into a larger framework of other studies is the same for quantitative and qualitative research (Stewart and Klein, 2016, p. 615). This means that by using theory it is possible to compare your findings to other, similar studies. UTAUT is not perfect and in order to apply it, modification and revisions are needed as recommended by Venkatesh et al (2003). Hence, the UTAUT model that was used for this research work, was modified to create a conceptual model based on the outcome of the mPayment research study.
3. Methodology

This chapter explains the method used in this research, paradigm, the data collection strategy, data analysis as well as research ethics that was considered during the study.

3.1 Research Philosophy

Research philosophy encompasses beliefs, assumptions, perceptions and the nature of reality and truth, which is fundamentally different for each individual, and will most likely unconsciously influence the research design (Saunders et al., 2009). The research philosophy is a major consideration before conducting research in order to understand, expose and minimize biased research (Saunders et al., 2009). In the field of Information Systems, there are three philosophical traditions or paradigms namely positivist, critical and interpretive (Orlikowski and Baroudi, 1991). These paradigms rely on different epistemological assumptions based on knowledge acquisition. Firstly, on the understanding of knowledge, secondly on how valid knowledge can be obtained (Hirschheim, 2008), and thirdly, ontological assumptions, which have to do with the essence of the world in which we live and the reality (objective or subjective) that the researchers choose to look at (Orlikowski and Baroudi, 1991).

In addition, according to Myers (1997), positivism assumes that reality is objective and can be described by measurable properties which are independent of the observer (researcher) and his or her instruments. Positivist studies generally attempt to test theory, in an attempt to increase the predictive understanding of phenomena. The critical paradigm on the other hand, assumes that social reality is historically constituted and that it is produced and reproduced by people. Although people can consciously act to change their social and economic circumstances, critical researchers recognize that their ability to do so is constrained by various forms of social, cultural and political domination. The main task of critical research is seen as being one of social critique, whereby the restrictive and alienating conditions of the status quo are brought to light. Critical research focuses on the oppositions, conflicts and contradictions in contemporary society, and seeks to be emancipatory. Interpretive paradigm starts out with the assumption that access to reality (given or socially constructed) is only through social constructions such as language, consciousness and shared meanings. The philosophical base of interpretive research is hermeneutics and phenomenology. Interpretive studies are generally used to understand the context of the information system and the information systems influence on the context (Klein and Myers, 1999). In interpretive research, which context to retell is very much up to the researcher and what story he/she wants to tell the audience (Klein and Myers, 1999).

Seeking meaning and interpretation of a study is one of the key tasks of an interpretive research. The core of this study is about exploring the factors that influence the adoption of the swish mPayment app amongst the consumers. Hence, this study was conducted within the frame of interpretive paradigm. Furthermore, Klein and Myers (1999) suggest that interpretive research is understanding human thought and action. Also, to attain deep insights to how information systems come about and is sustained, a view that suits this research study’s purpose and aim. It was with this view this research was performed. In addition, according to Creswell (2014, p 37), the goal of of an interpretive research is to rely as much as possible on the participants’ views of the situation being studied. Also, the questions become broad and general so that the participants can construct the meaning of a situation.
Although no research can be said to be without bias, however, this research work was carried out with an open mind by giving the participants the opportunity to express themselves. The researcher also listened attentively while making necessary jotting and recordings and then reflecting and relating their responses to the aim and purpose of the study.

3.2 Research Approach
There are two major approaches that a researcher can use to describe, explain or interpret data, qualitative and quantitative research. Quantitative data take the form of numbers. They are associated primarily with strategies of research such as surveys and experiments, and with research methods such as questionnaires and observation (Denscombe, 2014, p 242). On the other hand, qualitative data takes the form of words (spoken or written) and visual images (observed or creatively produced). They are associated primarily with strategies of research such as case studies, grounded theory, ethnography and phenomenology, and with research methods such as interviews, documents and observation (Denscombe, 2014, p 273).

The qualitative approach was used in this research. The selection of this research approach is based on the fact that this approach provides tools for researchers to study complex phenomena within their contexts (Baxter and Jack, 2008). Rather than a presumption that there must be, in theory at least, one correct explanation, this approach allows for the possibility that different researchers might reach different conclusions, despite using broadly the same methods (Denscombe, 2014, p 304). This ensures that a research problem is not explored through one lens, but rather a variety of lenses which allows for multiple facets of the phenomenon to be revealed and understood. Furthermore, this approach allows the researcher to seek or understand better a situation from the view of participants (Creswell, 2014, pp.48) and also gives room for the in-depth study of a focused area. Since this research seeks to identify factors that influence the adoption of mPayment system which can be related to seeking more understanding of a situation in a focused area (mPayment). Hence the qualitative approach best fits this research study.

3.3 Selection of Participants (Sampling)
The choice of participants, depends on the research approach the researcher has taken on. With a quantitative approach selection is done using statistical methods to attain a representative and random sample of the population, “probability sampling” (Lewis and Ritchie 2003, p. 77). However, with the qualitative approach the sample is more the case of what you chose to study and what perspective or whose story you chose to tell. This is also called “non-probability sampling” and is more appropriate for the qualitative research approach (Lewis and Ritchie 2003, p. 78). In non-probability sampling participants are purposively chosen to “reflect particular features within the sampled population” (Lewis and Ritchie 2003, p. 78). The sampling, or choosing of participants, in qualitative research is not meant to be statistically representative, instead the sample is chosen due to to their characteristics (Lewis and Ritchie, 2003).

Since this research study aims to explore and better understand what influences people to adopt a mobile system, the major consideration for choice of participants were people who uses mobile technology for their day to day activities especially in relation to financial activities. In order to allow for contextual framework, the purposive sampling technique was used for this study.
This technique was used because the researcher intends to interview people who already have a prior knowledge about the mPayment system, mobile technology apps and mobile banking. The purposive sampling according to Denscombe (2014, p. 34), gives the best information while focusing on hand-picked people on the basis of knowledge and relevance to the study.

The participants used for this research were purposely chosen from friends/families presently living in Umeå Sweden. Both male and female participants were considered but minors were not qualified to participate in this research (people less than 18 years). This is because the researcher believes that these set of people will not be able to give concrete/suitable answers in relation to the study. Also, in a qualitative research, according to Sargeant (2012), participants are selected based on their knowledge/understanding about the phenomenon of the research in study. Hence it is important to select appropriate participants who would be able to give the best responses in relation to the goals of the study. Furthermore, in order to ensure a diverse sample, the researcher interviewed 6 participants between the age ranges of 19-45 years old. This age range best fit this kind of research because these set of individuals are known to be socially active and will also be capable of giving useful and appropriate answers that the researcher seeks to find. In addition, the researcher also considered the people who are presently using the mPayment app, the people who have used the app before and stopped using it and the people who have never used it. This will give this research study a wider view of the factors that influence people’s opinion to adopt the mPayment system. Also, this choice of participants and their inputs will serve as an eye opener in the ICT world especially now that mPayment has become popular. Developers can be aware of some of the lapses in the mPayment system and also suggest ways to improve on them while maintaining the already established ones.

In conclusion, the sample size for this study were at an early stage set to a range of 6-8 participants. Before the selection of the participants, the author ensured that the candidates chosen for the interview as stated earlier were people who met the requirements for the study i.e. people who had prior knowledge about the Swish app and people who were willing to participate in the research after being briefed about what the study entailed. The researcher determined the eligibility of participants by asking few questions about the Swish app from these people. The feedback that the researcher got, determined the people that were qualified to participate in the research or otherwise. After the eligibility test, 6 people out of the initially 8 intended were qualified/willing to participate in the study. The researcher then decided to proceed with these 6 people. Ritchie and Lewis (2003, pp. 83-84) mentioned three reasons to justify keeping sample size small in qualitative research. Firstly, phenomena only need to appear once to be part of the analysis so an increasing sample might not contribute that much more. Secondly, frequency is not an area of interest in qualitative research. Thirdly, the type of information that the researcher collects through qualitative methods are so rich in detail that a larger sample would not be possible to manage and process. Hence, the researcher proceeded with the 6 participants that were adequately fit and also will be able to give a rich detail in relation to the research study.

3.4 Data Collection Method
Given the qualitative approach of this research while also considering the purpose and objective behind this study, an interview was selected as the data collection method. When the researcher needs to gain insights into things such as people’s opinions, feelings, emotions and experiences, then interviews will almost certainly provide a more suitable
method – a method that is attuned to the intricacy of the subject matter (Denscombe, 2014, p 174). In addition to generating rich data, they allow face-to-face contact, enable a researcher to follow up immediately on unclear or ambiguous answers, gain access to information that a respondent would not reveal on paper, and give the researcher the flexibility in administering the interview according to the needs of individual respondents or situations (Randolph 2008, p 78). In this research study, the semi structured face-to-face interview method was adopted. The researcher deemed this method the most appropriate because this research aims to identify specific factors that influences people to adopt a system. In this situation there is a need to know the opinions, experiences and feelings of people about this system. The semi structured interview method works in a way that the interviewer has a series of questions to be asked. However, the interviewer will be flexible and perhaps let the interviewee develop ideas and speak widely on the issue raised by the researcher (Denscombe, 2014, p 175). This method of data collection streamlined the discussion to the research area and the researcher was also able to obtain answers that were relevant for the study.

3.4.1 The Interview Procedure

The author started the interview with participants in the neighbourhood. Four of the participants lived in the neighbourhood. A scheduled time was given to the researcher and the interviews were conducted in an agreed venue. The interviews were conducted in English utilizing the interview guides (see Appendix 1) and were all recorded as the participants had consented to that. The interviews were performed between March 20th and 25th, 2018. The duration of the interviews varied from forty-five minutes to an hour and thirty minutes. The remaining 2 participants were a couple (husband and wife) and we agreed to meet in the Utopia mall in Umeå on a fixed date. The interviews were also conducted in English utilizing the interview guides (see Appendix 1) and were also recorded as the participants had consented to that. This 2 interviews were performed on April 2nd, 2018. Generally, before the interviews started, the researcher ensured that the participants were aware about the aims and objectives of the research work. Additionally, the consent form was presented to the participants and they were urged to review all the terms. In order to ensure truthfulness, the participants were assured that all information given would be kept confidential and would only be used for research purposes. Furthermore, the participants were also informed that they could withdraw anytime if they feel uncomfortable with some questions. The form was both signed by the researcher and the participants. The details of the participants are listed in Table 3.1 below. The table shows the date of the interview, the duration of the interview, age range of the participants and the code used to depict the names of the participants involved in the interview.

The researcher prepared all the questions, but the participants were the writers of the script. As this research study was employing a theoretical framework (UTAUT), this framework was a guidance to some of the questions that were asked. As an example ‘What is your opinion about the Swish app in terms of security when compared to other forms of banking transactions like internet banking, paypal, etc?’ The interview guide also included general questions like their best feature on the app amongst others.
3.5 Data Analysis

The analysis of this research study was done by using the thematic analysis approach. This method of analysis helps researchers to understand participants’ experiences when a phenomenon appears and aids the interpretation of various perspectives based on illustrative quotations from the participants during the research (Silverman, 2011, p214). This type of analysis promotes transparency by unraveling the nature of data and their representation in the stakeholder’s intertwined context, as interviews would enlighten repeated patterns of research problem’s meaning (Braun and Clark, 2006, pp.79-81).

The advantages of thematic analysis are: flexibility, accessibility concerning the conduct and the results for both qualitative researchers and the public in general. It also strengthens the interpretation of data within a participatory pattern where participants act as collaborators and contribute in policy development (Braun and Clark, 2006, p.97).

Braun and Clarke (2006), suggested a list of six phases to be covered when conducting thematic analysis which was also used in this study:

1) Familiarize yourself with the data: This is the first phase of the analysis. In this phase, the researcher read and reread the data in order to to be familiar with the data.

2) Generation of initial codes: In this second phase, the identification of patterns and meaningful codes in accordance to the aim and objectives of the research work was generated.

3) Search for themes: Next, the initial codes which was generated in phase 2 are reassessed to make sure that they fit into the potential themes.

4) Review themes: In this phase, all the generated codes are assessed for coherence and consistency. According to Patton (2002, p 465), the themes should have “internal homogeneity and external heterogeneity”. This was put into consideration when reviewing the themes.

5) Define and name themes: Once the themes have been identified, names were given to these themes. They were also defined in accordance to what they capture and represent.

6) Produce the report: The final phase was the report. A concise, coherent and interesting report was prepared. The goal of the report is to be able to relate to the research questions through argumentation and not just mere description of the data.

Table 3.1 – Details and Characteristics of Interview Participants

<table>
<thead>
<tr>
<th>Participants</th>
<th>Age Range</th>
<th>Interview Date</th>
<th>Duration</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>30-39</td>
<td>20-03-1018</td>
<td>1 hour</td>
<td>Swish</td>
</tr>
<tr>
<td>P2</td>
<td>19-29</td>
<td>22-03-2018</td>
<td>45 minutes</td>
<td>Swish</td>
</tr>
<tr>
<td>P3</td>
<td>30-39</td>
<td>23-03-2018</td>
<td>1 hour</td>
<td>No Swish</td>
</tr>
<tr>
<td>P4</td>
<td>40-45</td>
<td>26-03-2018</td>
<td>50 minutes</td>
<td>No Swish</td>
</tr>
<tr>
<td>P5</td>
<td>19-29</td>
<td>28-03-2018</td>
<td>45 minutes</td>
<td>Swish</td>
</tr>
<tr>
<td>P6</td>
<td>40-45</td>
<td>02-04-2018</td>
<td>1 hour 30 mins</td>
<td>No Swish</td>
</tr>
</tbody>
</table>
In the analysis of the factors that affect the adoption of mPayment system in Sweden, the researcher started by transcribing the interview after they were conducted. The interviews recorded needed to be listened to a couple of times in order to be able to pick the most relevant points in relation to the research aims and objectives. This process was time consuming but was necessary in order to gain a better understanding of the responses from the participants in relation to the study. In addition, the researcher also went through the jottings that was made down during the interview and picked the relevant points to join with the transcribed transcripts. After reading and re-reading the transcripts a couple of times, the grouping and generation of initial codes then took place. The initial coding resulted in 25 codes (see Appendix 3 for details). These codes were then reviewed, defined, named and classified into 9 categories. These categories formed the basis for the extraction of the themes in accordance to the research objectives. The final stage involved developing these themes according to their relevance. Once a satisfactory set of themes were established, the report was produced as explained in chapter 4.

3.6 Validity and Reliability

Validity is about how thoroughly, systematically and correctly the research is conducted according to the phenomenon that is tested (Saunders et al., 2009). While reliability is the degree of consistency of the results, when the same test is conducted again (Rindskopf, 2001).

This research study followed the basic principles that Lewis and Ritchie suggested for the “trustworthiness” of the data (Lewis and Ritchie, 2003). First in the selection of participants, the author ensured that they were selected strategically in order to be representative and show a diverse aspect of the research topic. Secondly, the participants that were chosen had a prior knowledge of the swish app and were also familiar with mobile technology especially in relation to financial activities. Furthermore, the representative sample contained both male and female with the age range 19-45. This shows that the author considered a balance in gender and also ensured that the age range chosen are set of people who are socially active. This enhanced getting useful and appropriate answers in accordance to the research aims and objectives. In addition, the researcher also ensured that the concepts of the research were described to the interviewees before commencing the interview. After the interview session, the researcher further adopted Yin (2009) and Gibbs (2007) approach by ensuring proper documentation of all the steps, transcripts were checked and rechecked for mistakes and provision of a rich and detailed description of the findings were provided.

In terms of the theoretical framework chosen (UTAUT), it requires sensitivity to what possible contradictions might occur between the theoretical preconceptions and the findings with revision as a subsequence (Klein and Myers, 1999, p. 72). It might be problematic to choose UTAUT as a theoretical framework for a qualitative research approach if you were to assume the theory as truth of which you should prove or discard. However, I chose to see the theory more as a lens through which I approached and interpreted the collected data. While interpreting the study, this was something I was aware of and reflected on throughout the conduction of the study to make sure to keep an open mind and not be steered by theory.
3.7 Ethical Consideration
In the interest of ensuring the protection of the participants, an informed consent form was presented to the interviewees to sign, prior to the beginning of the interview (See Appendix 2). The purpose of this form is not only to formalize the feeling of trust by the interviewees, but to also allow for their maximum comfort to ensure unbiased collection of data. Furthermore, the researcher ensured that no harm was incurred from participating in the study and all information disclosed was kept confidential and not disclosed to other respondents or people not connected with the research. The research dealt with adults only and no vulnerable population was involved in the study. All the participants were informed about the research and they have the choice to participate or not. The interview questions were open ended thereby allowing participants to express themselves. Also, all the respondents were assured that their data will remain anonymous except to the researcher. The participants were also allowed to ask any questions from the researcher.
4. Empirical Findings

The chapter presents the findings of the interview which was analyzed with the thematic analysis.

4.1 Interview Findings

The analysis of the interview findings was performed in accordance to Braun and Clarke’s (2006) recommendation. The six themes that were identified in relation to the factors that influence the adoption of mPayment from the research study are:

1) Impact on Day-to-Day Activities
2) Speculation of Risks and Trust of the System
3) Integration to Lifestyle
4) Speculation of User Friendliness and Flexibility
5) Age
6) Peer influence

Each of the themes is presented and contains the perception of both mPayment users and non mPayment users.

4.1.1 Impact on Day-to-Day Activities

The researcher began every interview by talking about mPayment in general. This led to the discussion of mPayment and its usefulness in relation to day-in, day-out activities. The relative advantages of mPayment systems mentioned by interviewees included the possibility to make purchases ubiquitously, independence of time and place, and possibility to avoid queues. Interviewees also drew attention to the independence of location as useful because purchases could be conducted remotely without any physical appearance.

“I think the biggest advantage of mPayment system for me is the ability to pay my bills, send money to people and even pay for items without any physical appearance” (P1)

“I have been able to use the swish mPayment app to send monetary gift to my friends during their special occasion without even being physically present in the event which has been a great advantage for me” (P2)

According to P5’s view, mPayment systems are readily available. There is no need to look for ATM in situations where there is a lack of money and immediate payment needs to be made.

“If you need to go to the movies with your friends and you don’t have cash to pay for ticket, swish can be made to purchase your ticket immediately without searching around for ATM machine” (P5)

Most of the interviewees explained that the adoption of the mPayment system has in one way or the other made life easier in terms of day-in, day-out financial activities.
“I found the swish app very useful for my daily financial activities and just recently the app has expanded its services to booking for flights which even makes me love the system more and use it regularly” (P1)

“I enjoy using the swish app to pay for my bills. This is because I don’t have to worry about debit card details. Once I have the attached mobile number of the company, I can transfer the money just with a click. I have been using it for two years now and it has been very helpful” (P5)

“I always enjoy the feature of sending gifts. I have also been able to use the app to send monetary gifts to friends and families without any physical appearance. This has really been the best part of mPayment for me and I find it really useful” (P2)

However, some participants felt otherwise about the system by stating that they feel that inasmuch as there are alternatives, then there was really no incentive to adopt the system as there were many other ways to go about their financial activities.

“As long as I can withdraw cash and use the ATM, I don’t think I will be adopting the system anytime soon” (P6)

“If it is not made compulsory by my bank, then I will continue to use the ATM. I do not see the usefulness of transferring money over the mobile phone especially as it can be very unsafe and risky” (P4)

“Since I uninstalled it from my phone, I have not seen a reason to install it back. I have been able to perform all my financial activities without it. So I would say it is not so important nor useful” (P3)

Overall the responses, gave an insight to the impact of mPayment systems in relation to day to day activities such as being readily available, useful for sending monetary gifts, payment of tickets and bills amongst others. On the other hand, some people also feel that since there are many options out there to perform their financial activities, then there was no reason for them to adopt the system.

4.1.2 Speculation of Risks and Trust of the System

This factor was described as one of the major reasons for not adopting the system by all of the interviewees presently not using the system. Some felt that since mPayment involved transaction on the mobile phone then if the phone is stolen or hacked then it becomes worrisome.

According to P3, “The major reason why I am not interested in the mPayment system is due to security concerns. I don’t know how safe it is considering that I can be careless with my phone sometimes”

“I don’t feel safe performing monetary transactions with my phone considering that anybody can access my phone when I am not there and this is very risky and unsafe” (P4)
"I prefer to do all my transactions with the ATM or cash. I do not feel safe making transactions online or via Swish. It involves giving out your mobile number and I am not comfortable with giving out my mobile number to strangers" (P6)

Furthermore, errors in payment was speculated as another potential risk. The error can be due to the mPayment system itself or typographical error. More concerns were also raised about phone battery going off in the middle of a transaction. Making the payee unsure if the transaction had taken place or not.

"....and if you pay for an item and there is a network issues or you missed out one of the figures in the amount to be paid out, that can be a problem which most times will require you going to your bank to lodge complaints and rectify the error" (P6)

"One of my concerns has always been network reliability and what if my phone battery goes off in the middle of a transaction. How do I know where to start from or even continue from?" (P3)

However, P1, P2 and P5 argued that

"Most financial operations are dangerous whether done online, physically or via the mobile phone. The exposure to theft and scam just varies from one platform to the other. The system can be prone to scam or some security concerns might arise but the advantages and what the system provides overshadows the disadvantages in my own opinion" (P1)

"Since I have been using the system, I have not experienced any issues in terms of security but I am aware that one has to be careful when dealing with financial activities online. I am always careful and I think I still love the system" (P2)

"For me, I make sure I check and re-check before making any transactions via my mobile phone. If it is not something I am comfortable with, then I won’t make the payment. However, my experience so far has been good with the Swish app and I would recommend it any day, anytime" (P2)

Overall the responses from the interviewees gave an insight to security concerns. Some participants felt that the system might not be safe, some also feel uncomfortable with sharing their mobile number with strangers coupled with issues such as network reliability, theft for example when your phone is stolen amongst others. Even though the system might be prone to security issues, this doesn’t stop its operations and the fact that it is efficient, convenient and useful. Also, the interviewees mentioned that all financial activities can be dangerous and one has to be careful when performing any operations online.

4.1.3 Integration to Lifestyle

With the different kind of purchases that an mPayment system can be used for. The participants expressed how the Swish app blends into their individual lifestyle Some of the interviewees explained that the system has successfully integrated into their lifestyle without any the requirement of any special skill(s).
“I didn’t need to contact my bank or had any difficulties in integrating the swish with my bank account. It was easy for me to set up and fitted into my day-in, day-out activities” (P1)

“The most interesting part of the swish app for me is that I didn’t require any special skill to set it up. I downloaded the app, followed the instructions and I have been using it” (P2)

However, some participants complained that not all purchases can be made yet with the mPayment system and in situations when you change your phone, setting up the swish app all over again can be challenging.

“I have actually used the app before but I uninstalled it when I realized that it was more compatible with small value payments such as one to one payment. If it becomes more compatible with most transactions, I might reconsider it” (P3)

“The other day I bought a new phone. I was able to synchronize most of my applications without any problem or going online to check for instructions but the swish app required me synchronizing with my bank account which took me two days to sort out. I would say that is the only thing I don’t like about the app” (P5)

Overall the responses from the interviewees gave an insight to the integration of the system to lifestyle. The responses showed that it is very easy to set up and doesn’t require any skill to set up. However, on the other hand, some people feel that the system is still limited in terms of its financial transactions such as it fitting only into small value payments. Also, in situations where there is a change of phone, the whole process of installing the application from the beginning on the new phone and synchronizing with your bank account has to be repeated and sometimes this whole process might not be straightforward.

4.1.4 Speculation of User Friendliness and Flexibility

The comments from the interviewees showed that one of the major benefits of the system is the convenience that the system provides.

“I stopped carrying my cards about when I discovered swish because it was much more convenient for me and safer” (P5)

“Imagine going for an event and swishing the amount you want to donate at the event immediately, instead of issuing cheques or postponing the payment. It is a faster means of payment and definitely convenient for me” (P2)

“The other day, I saw an item online that I wanted to purchase over the weekend. I only asked the seller if she had swish and I paid off immediately. She confirmed payment and I picked up the item.

This was so easy, straightforward and convenient for the two of us. Considering it was weekend and I didn’t have to start bothering about ATM or going to the bank” (P1)
Overall the responses from the interviewees gave an insight to how user friendly, flexible and also the benefits of the mPayment system such as convenience, availability and faster means of payment especially in emergency situations.

4.1.5 Age
The age range that was considered for this study are people between 19 – 45 years old. As described in Section 3.3, this age range best fit this kind of research because these set of individuals are known to be socially active and will also be capable of giving useful and appropriate answers that the researcher seeks to find. According to P4 and P6, they seem not to be so keen about the system as they stated that they don’t find it interesting switching from what they are used to, to a new form of technology especially if the old one still works well for them.

“My children use the swish app but changing from one app to another is not interesting to me. This moment you are used to one form of system and the next moment, another one comes out and then you have to start thinking of how to understand that as well. Personally, I am not somebody that adopts to a new system quickly as long as the old one still works for me, so I have decided to stick to online internet banking for now” (P4)

“I don’t really enjoy using my mobile phone for any other operations other than to receive phone calls and reply text messages. At this time, I have a lot of commitments in my hands especially in terms of my work, family, career amongst others. Hence, I still prefer to use the traditional banking system for all my financial activities as it’s easy, I have less worries and also safer” (P6)

On the other hand, some participants feel that we are in the information technology age where new systems will keep evolving whether we like it or not.

P5 mentioned that “I am always keen about the latest development in technology and it wasn’t a problem for me to decide if I wanted to adopt the system. All I needed to do was to know more about the system and how easy it will fit into my daily life. Since it wasn’t difficult to use, I downloaded the app and I have been using it since then”.

In addition, P1 and P2 also mentioned that most of the people that surround them have been using the Swish app and it wasn’t an issue or a problem for them to adopt the system.

Overall the responses from the interviewees showed that the middle aged range folks (40-45 years) tend to be a little laid back when it comes how quickly they adopt a new technology. P6 emphasized on being busy at the moment with a lot of commitments in relation to work, family, career and others while the younger folks on the other hand are keen and eager to know about the latest trends in technology and quicker to try it out.
4.1.6 Peer Influence

Some of the interviewees got to know about the mPayment system from friends or family members and decided to also adopt the system while some other people had to start using the system due to the constant question being asked “do you have swish?”, anytime they try to pay for a one to one transaction or sharing bills with friends.

“What actually made me to start using the mPayment system is because I find it much easier and convenient to share bills with my friends and families especially when it is just a little sum of money” (P5)

“Most of my friends had the app installed on their phone. I was also curious to know what the app was being used for so I decided to also download the app and try it. I have been using it since then” (P2)

“I had to start using the app after being constantly asked if I had swish from buyers” (P1)

On the other hand, some people feel that even though they are yet to adopt the system at the moment, the social pressure might later influence them to.

“I initially had the app but due to my security concerns and worries, I uninstalled it. However, I have been deprived of some items online due to buyers saying they want swish and no cash. Maybe I would still be forced to use it again in the future” (P3)

“My children always ask me when I will start using the swish app because they feel that it would be easier for me to perform most of my financial transactions. For now, I am not interested in the system but I may have to succumb one day in the future” (P6)

Overall the responses from the interviewees gave an insight to the degree at which social trends can influence people which can be seen from the responses from people trying out the system because their friends are also using it to peer pressure. Even people that are yet to adopt the system feel that overtime they might be compelled to succumb to the trend and also start using it.

4.2 Overview of Empirical Findings

The thematic analysis identified six themes in relation to factors that influence the adoption of mPayment system. These findings have been grouped and summarized in Table 4.1 below.
<table>
<thead>
<tr>
<th>Themes</th>
<th>Findings</th>
</tr>
</thead>
</table>
| **1** Impact on Day-to-Day Activities | • Ability to pay for bills  
• Ability to send monetary gifts  
• Ability to pay immediately in situations where there is a lack of money  
• Ability to send money to people without being there  
• Useful for financial activities such as booking flights, paying bills, and so much more  
• As long as there are alternatives, people may never adopt the system |
| **2** Speculation of Risks and Trust of the system | • Security concerns  
• It might be risky and unsafe  
• Not comfortable with giving strangers mobile number  
• Most financial activities are prone to theft and security concerns. It doesn’t matter if it is done online or physically  
• One has to be careful when performing online transactions |
| **3** Integration to Lifestyle | • Easy Setup  
• Fitted into day-in, day-out activities  
• No special skills required in putting it to use  
• More compatible with small value payments  
• Synchronization may not be straightforward |
| **4** Speculation of User Friendliness and Flexibility | • Convenient especially during the weekends  
• Less paperwork (no cheque is required)  
• Faster means of payment |
| **5** Age | • The middle age range folks tend to be a little laid back in terms of new innovation and their rate of adoption  
• Traditional banking is still preferred over online banking  
• The younger folks are eager and keen on knowing the latest trends in technology such as the mPayment system. |
| **6** Peer Influence | • Possibility of sharing bills with friends and family that adopt the system  
• The influence of adopting the system when other people around you are also adopting the system  
• Avoidance of being constantly questioned if you have swish  
• Deprivation of items online due to non-adoption of the system |
5. Discussion
The chapter presents the outcome of the research and its connection with the aim and objectives of the research study. Furthermore, the limitation of the study and suggestion for future research is also discussed.

The concurrent rise of Information Communication Technology (ICT) has brought about a change in the way people handle transactions. The payment systems have undergone an incredible evolution over the years passing from physical transfer of cash to exchanging money in a digital form. In recent times, there have been a growing number of successful mobile payment platforms around the world such as SEQR and Swish in Sweden amongst others. Although, banks, organizations, retailers, traders and people have embraced the system over the years. However, an ample amount of people are yet to accept or adopt the system. Hence there was a need to investigate what motivates people to adopt the system and why some are yet to adopt the system. This research aimed at identifying those factors that influence the mobile payment system. The research question was: What factors influence the adoption of Swish mobile payment App among the consumers in Sweden? After performing this research work, impact on day-to-day activities, speculation of risks and trust of the system, speculation of user friendliness and flexibility, integration to lifestyle, age and peer influence were identified to be factors influencing the adoption of the mPayment system.

5.1 Findings through the lens of Theoretical Framework
Firstly, after the analysis of the study, the researcher then viewed the results through the lens of the UTAUT model which was explained in section 2.3.3 and 2.3.4. According to the findings, the impact of the system on day-to-day activities, the speculation of user friendliness and flexibility coupled with peer influence can be interpreted or viewed as being direct determinants of users’ intentions to use the swish app which in turn informs how users’ behave when they eventually use the system. This implies that users who see gains in a technology, perceive the system to be user-friendly, and perhaps have existing users of the system as peers will likely hold stronger intentions to use the system while their usage behavior is indirectly induced by Age. The response of P1 below provide support for this.

“I found the swish app very useful for my daily financial activities and just recently the app has expanded its services to booking for flights which even makes me love the system more and use it regularly” (P1) – Impact on day-to-day activities

“I had to start using the app after being constantly asked if I had swish from buyers” (P1) – Peer Influence

“Most of the people around me use the swish app, so it wasn’t an issue for me to adopt the system” (P1). - Age

Furthermore, the moderator, Age in this study, is an indirect determinant of intention and it indirectly influences use behavior. For example, the response of P6 shows that the middle-aged users tend to stick to what they are used to over the adoption of a new technology.

“...I still prefer to use the traditional banking system for all my financial activities” (P6)
Facilitating conditions, such as *Speculation of risk and trust of the system* are the only independent variables that have direct influence on user behavior while being moderated by Users’ Age. As an example, this study shows that the middle-aged users do not feel so comfortable with sharing their details with strangers which discourages some of them from adopting the system. The response from P6 below provides support for this.

“...I do not feel safe making transactions online or via Swish. It involves giving out your mobile number and I am not comfortable with giving out my mobile number to strangers” (P6)

Figure 5.1 presents the conceptual model for describing factors influencing the use of the Swish mobile payment system through the lens of UTAUT (introduced in Section 2.3.4). The model encapsulates all the factors of the study earlier identified through thematic analysis in Chapter 4.

The vertical axis shows each themes after the analysis and how they correspond to the independent variable of the UTAUT model while the *Behavioural Intention* and *Use Behaviour* on the extreme right are classified as dependent variables. The moderator, *Age*, on the horizontal axis, is associated with the independent variables via directed arrows.

![Figure 5.1 – My conceptual Model of the mPayment Usage](image)

### 5.2 Findings in Relation to Existing Related Research

The outcome of this research work showed that the impact of the swish app on day-to-day activities, the speculation of user friendliness and flexibility, integration to lifestyle and peer influence are major factors that influence the adoption of an mPayment system such as Swish. As explained in Table 4.1, the advantages that the mPayment system has such as the fact that it is convenient, easy to use, fits into day-in, day-out activities, accessible and compatible, have made a lot of people to embrace the system and adopt it. In reference
to existing research, Chen and Wu (2017) in his research discovered that mPayment users’ perception of convenience in an mPayment system is high. Also, the compatibility of mobile payment has a significant effect on perceived usefulness and perceived ease of use. In addition, Tian and Dong (2013) in his research showed that perceived usefulness, personal innovations and compatibility have a direct influence on users’ attitude towards adopting an mPayment system. Furthermore, Van der Heijden (2002) in his research to investigate the factors that affect the introduction of mPayment system, showed that ease of use and perceived risk topped the list from the consumer’s perspective while transaction fees and ease of use were the major determinants from the merchant’s perspective. All these findings in relation to this present research have showed a trend in what people deem important when considering to adopt an mPayment system. From this research work, and previous related study, it can be said that the huge adoption rate that the Swish app has experienced so far from consumers is due to the fact that it met the requirements and expectations of people in terms of what it provides such as convenience, integration to lifestyle, user friendliness, flexibility, amongst others.

However, according to Mallat 2007, just as the mPayment system has been experiencing a huge adoption rate, it is still facing a lot of challenges such as strict regulatory policies, lack of widespread merchant acceptance, and perceived risks. Also in Sweden the Swish app still lacks a low acceptance rate compared to the population (Gustavsson, 2016). The outcome of this research study has showed that the speculation of risk and trust of the system in addition to age can be said to be the reasons why some consumers are still yet to adopt the system. As seen in Table 4.1, some people feel that the system can be prone to scam and theft, some also do not feel comfortable with exchanging their mobile numbers with strangers, some also feel that as long as there are alternatives, then the system is not useful. Furthermore, in relation to previous study, Tian and Dong (2013), in their research discovered that opportunity cost and perceived risks have direct negative effect on the acceptance of an mPayment system. Also, Yang et al. (2012) in his study explained that behavioral beliefs in combination with social influences and personal traits are all important determinants for mobile payment services adoption and use, but their impacts on behavioral intention do vary across in different stages. This can be related to this present research where the middle aged participants seem not to be so keen about adopting a new technology.

Overall, this research work has shown that there are some specific factors that inform the decisions of users to adopt a system and otherwise. In order to be able to achieve optimum success in the adoption rate of the mPayment system, these factors needs to be considered to improve the acceptance rate as well as maintain the adoption rate.

5.3 Connection of Findings to Research Question

The research question for this study was “What factors influence the adoption of Swish mobile payment App among the consumers in Sweden?”

The answer to the research question from this research work showed that the impact of the system on day-in, day-out activities, user friendliness coupled with the flexibility it provides, were identified as the major factors that affect the adoption of swish mobile payment app in Sweden. Swish was identified to be very useful in terms of what it offers like payment of bills, sending of monetary gifts, becoming handy in emergency situations and even useful for booking flights. It was also identified to be fast and convenient.
Furthermore, integration to lifestyle and peer influence were also attributed to the factors that influence the usage of swish app. According to the findings from the study, users feel that the swish app fits into their lifestyle, not difficult to set up as well as non-requirement of any special skill in order to put the system to use. In addition, it was also discovered that peer influence has a long way in influencing people to adopt the system either directly or indirectly because people have been either encouraged, forced or known about the system due to people around them using it or being constantly asked if they had the app.

However, it was also identified that not everybody found this system to be useful as there are alternatives hence their non-adoption. This shows that inasmuch as mPayment system has been found by majority to be useful, some people still feels that as long as there are alternatives then it is not necessary to adopt the system. Hence availability of alternatives can be said to be one of the factors affecting a chunk of the populace in Sweden according to Gustavsson (2016) not to adopt the swish mPayment system. Furthermore, the major reason for the non-adoption of mPayment system amongst the populace according to this study, can be majorly attributed to speculation of risk and trust. According to the findings, people don’t feel safe exchanging their mobile numbers with strangers, they also believe that it can be risky and insecure. It can be said that risk and trust play an important role in terms of online transactions especially financial operations. In order to increase the adoption rate of the swish app, it is important to build users’ trust. This will affect user’s intention and improve users’ behaviour towards the acceptance of the system.

Age was also identified as another factor that affects the adoption of the swish app. The middle aged range folks (40-45) are not so keen about adopting the system fast as compared to the younger folks who are interested in the latest trends in technology. Some of them also stated that they prefer the traditional method for performing their financial transactions as it is easier and safer.

Overall, in relation to the research question, this study has shown that the impact the system has on day-to-day activities, the speculation of risks and trust of the system, how the system integrates to lifestyle, speculation of use friendliness and flexibility, age and peer influence are the factors that influence the adoption of swish mobile payment app amongst the consumers in Sweden.
6. Conclusion, Reflections and Future Research

The chapter presents the conclusion of this research including reflections and suggestions for future research.

6.1 Conclusion

Information Technology has evolved over the years and is still evolving. One of the areas where ICT has been constantly experiencing change and growth is the way people handle transactions from physical (money) hand-to-hand payment to digital form. This study investigated one of the branches of m-commerce which is the mPayment. Mobile payment simply means the ability to pay for goods, services, and bills using a mobile device through the adoption of wireless and other communication technologies. Although this system has experienced a considerable amount of acceptance since its introduction due to its many advantages such as flexibility, convenience amongst others but it still lacks a wide usage amongst consumers, merchants and organizations. Hence, more research study still needs to be done to make this system more relevant and acceptable otherwise, it may not have an impact on consumers’ payment behaviour in the nearest future. Although this area is still new but a number of previous research done showed some of the factors that is preventing the introduction of the mPayment system or the experience of people who are using or have adopted the system. Hence this study, aimed at identifying the factors that influence the adoption of mPayment system amongst the consumers in Sweden. The aim of this study was achieved by performing semi-structured interviews. This method of data collection was chosen for this study because they allow face-to-face contact, enabled the researcher to follow up immediately on unclear or ambiguous answers, gain access to information that a respondent would not reveal on paper, and also gave the researcher the flexibility in administering the interview according to the needs of individual respondents. Furthermore, since the aim of this study was to identify specific factors in people, there was a need to seek people’s opinions, experiences and feelings and the semi-structured interview gave room for this. Hence it was picked as the best method for data collection in this study.

Specifically, the research question was “What factors influence the adoption of Swish mobile payment App among the consumers in Sweden?”. After the interviews were performed and the collected data analyzed using thematic analysis, six themes were identified. The factors that were identified to motivate or demotivate the choice of consumers to adopt the swish mPayment app are: the impact the system has on day-to-day activities, the speculation of risks and trust of the system, how the system integrates to lifestyle, speculation of user friendliness and flexibility, age and peer influence.

The impact of the system on day-to-day activities, showed that mPayment systems are very useful because of their ability to pay bills, send monetary gifts, booking flights and so much more. However, on the other hand some people felt that as long as there are alternatives, they do not find the system useful. This shows that there is still a need to ensure that the system is unique so that more people can embrace the system. Speculation of user friendliness and flexibility according to the findings showed that the system is convenient, safe and fast. If an mPayment system is fast, more and more people will keep using it. The convenience, flexibility and safety it provides also encourages people to adopt the system. This will reduce carrying paper money about and also reduce theft rate in the society.
If the system is very user-friendly, more and more people will be encouraged to adopt the system and even recommend it to others. Technology has taken a new form. More and more people are beginning to be interested in technology. Hence, peer influence has a great influence on the mPayment system. When people see their friends and family adopt the system, there is a probability that they will be influenced to adopt the system as well. Also with the influence of the society, the people who might not be interested initially may be forced to embrace the system due to the opportunities the system provides such as the ability to share bills between friends and family. In addition, integration to lifestyle was identified as one of the factors that influence the adoption of the system. On one hand, some people felt that the system is easy to set up the system while on the other hand some people still raised concerns about the installation process not being straightforward. Hence it is very important to make the synchronization easy, the interface simple and instructions very clear so that no special skills will be required and more people can embrace the system. As an example, when a new phone is bought, some participants raised the concerns of having to start the whole procedure all over again. It is very important to make the system easy to synchronize at all times notwithstanding whether a new mobile phone is purchased or otherwise. Speculation of risk and trust was identified as the major reason why some people are yet to adopt the system. These set of people feel that the system is not safe, they were not comfortable about giving their mobile numbers to strangers amongst others. In order to increase the rate at which the mPayment system is embraced in the society. Security and privacy concerns has to be ensured. Users of the system need to be assured that their information is safe and secured.

Overall, this project has shown that different factors influence the adoption of mPayment system such as environment, age, compatibility, security concerns amongst others. Although, mobile technology is becoming popular each day. It is important to consider all these factors in order to continue to maintain good usage of these systems and encourage more people to adopt the system.

6.2 Contribution of the Study

This study contributes to the field of ICT specifically the mobile technology field. The conceptual model that was built gives a better and clearer understanding of the outcome of this study. Though this research work is limited to Person to Person, (P2P) and not the retailers (Business to Business, B2B and Business to Consumer, B2C), it can be said that if the outcome of this research is implemented on Small Medium Enterprises (SMEs) and individual businesses, it will improve the financial aspect of day in, day out activities. Also, this research shows that banks need to pay more attention to security and trust in order to facilitate user behaviour of the system. Due to uncertainty and potential risk associated with mPayment systems, building users’ trust is critical in order to increase the adoption rate of users. Also, this study has been an eye opener to the areas that consumers find useful and reasons why people choose to adopt the system. This shows that these areas need to be built upon and maintained properly as these are the driving forces that encourage people to embrace the system. In general, this study can be said to be useful to software developers, back end developers and researchers to be able to know the areas to put in more efforts as well as the areas to keep maintaining when creating an mPayment platform. In addition, this research was conducted within a country that has experience with m-payment apps. Hence, this study can serve as an example for other countries moving towards higher smartphone and application usage.
6.3 Researcher’s Reflection
During the research, the researcher was able to discover a lot of interesting aspects in relation to the research study. First the researcher discovered that even though technology has made life generally easier and useful for day-in, day-out activities, not everybody feels secure about the system nor interested in adopting the system. Secondly, this study gave the researcher the opportunity to do more research in terms of mPayment. Although this area is still new and not much research work has been done but this research work gave the researcher the opportunity to explore the few researches that has been done in this area and their findings. Furthermore, the UTAUT theoretical framework, provided the opportunity to view what was conveyed by the participants through a different lens. This gave room for the comparison and user acceptance of technology. Also, during the course of the interview, the researcher learnt how to interact with people, listen attentively while also trying to be relaxed and friendly in order to create a comfortable platform for the interviewees. Although there were some challenges during the study such as finding the appropriate candidates for the interview, scheduling time with participants amongst other. The analysis stage also required listening to the collected data several time before identifying the themes. Having to perform an interview, recording the interview while making notes of some important points were a bit of task but overall, the qualitative method of research study gave a deeper meaning to the topic and gave an insight to the research question. In addition, the study has contributed to the information communication aspect of technology and at the same time, improved me and my research skills. Hopefully, this research work sheds more light on this area especially now that mPayment is becoming more and more popular.

6.4 Suggestions for Future Research
In this research the factors that influence the adoption of mPayment system were identified using the qualitative approach and thematic analysis. A conceptual model was built which makes this research unique and different from prior research work in mPayment studies. However, this study was performed in Sweden which means that the findings are limited as factors can differ from country to country due to cultural and demographic differences. Furthermore, the purposive sampling was used in the selection of participants. Therefore, future researchers can look into performing a quantitative study as this will increase the sample size of respondents and give room for quantitative analysis. In conclusion, future researchers can also examine more factors in relation to B2C and B2P as this research only covered P2P.
References


Kolaki, M., 2017. Mobile Payment Use and Mobile Payment Transactions by Older Adults: A Qualitative Study.


Appendix 1: Interview Guide
These interview questions aim to identify the factors that influence the adoption of mobile payments (such as Swish systems amongst the consumers). The questions have been structured to identify your opinions about the system, why/why not you do not use/adopt the system.

Part A: Introductory Questions
1) Hello, nice to meet you, my name is Wemimo Ibidunmoye, can you introduce yourself aswell?
2) Do you mind telling me the age range you fall into between ages 19-29, 30-39 and 40-45?

Part B: People who have the Swish mPayment App
1) How/where did you first hear about the Swish app?
2) What would you say influenced your decision to start using the app?
3) How long have you been using the app?
4) Please describe your experience while setting up the app
   a. What challenges did you face during your initial set up?
   b. What particular features do you like about the app?
5) What do you typically use the app for (bills, buy/sell items, gifts, etc)?
6) Whenever you perform any online transaction on the Swish app, what is your experience like in terms of security, trust and risk? Also, can you give me some similarities or differences between other forms of payment (e.g. card, bank transfer, paypal)?
7) How do you feel when a retailer or merchant do not support payment with Swish?
8) Can you describe some of the issues you have encountered while using the app?
9) Overall, would you recommend the app to friends and families?
10) What suggestions or comments would you like to add?

Part C: People who do not have the Swish mPayment App:
1) Have you ever used the swish app before? If yes, why did you discontinue?
2) Do you have people (families and friends) around you who use it?
3) What are your reasons for not using it?
4) What can make you start using the swish app?
5) What is your opinion about the Swish app in terms of security when compared to other forms of banking transactions like internet banking, paypal, etc?
6) What contributions, suggestions or comments would you will like to add?
Appendix 2: Informed Consent Form

Researcher
Wemimo Ibidunmoye (wi222ac@student.lnu.se)
MSc in Information Systems
Department of Informatics
Linnaeus University.

I am asking for your voluntary participation in my research project titled “the identification of factors influencing the adoption of mobile payment”. This research work is a part of the requirement in MIS thesis. The interview questions were designed to collect data for my research study, which will be used towards a thesis for the degree of Master of Science in Information Systems.

Please read the following information below about the project. If you would like to participate, please sign in the appropriate space below. If you have further questions about this study, please feel free to contact the researcher.

Information about the research
The purpose of this research is to identify factors that inform decisions to patronize or not to patronize mPayment system like Swish among members of the consumers in Sweden.

Participating in the study
Participants will be provided with questions. The questions will be open ended thereby allowing participants to express themselves. In addition, the questions will take approximately about 30 to 45 minutes to complete.

Voluntary Participation
Participation in this study is completely voluntary and you may refuse to participate or withdraw from the study without penalty but if you will be willing to participate, all information will be kept confidential and names of participants will remain anonymous. Your answers will be evaluated with other participants’ responses to draw conclusions for this research project.

Agreement
The nature and purpose of this research have been sufficiently explained and I agree to participate in this study. I understand that I am free to withdraw at any time without incurring any penalty.

_____________________________  ____________________
Name of Participant  Date and Signature

_____________________________  ____________________
Name of Participant  Date and Signature
Appendix 3: Table of Codes and Findings

Table 1: Table showing the themes and categories

<table>
<thead>
<tr>
<th>Themes</th>
<th>Categories</th>
</tr>
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<tbody>
<tr>
<td>1 Impact on day-to-day Activities</td>
<td>Advantages of mPayment system</td>
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<tr>
<td></td>
<td>1, 2, 4, 5, 8, 15, 16, 23</td>
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<tr>
<td></td>
<td>Ease of Use</td>
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<tr>
<td></td>
<td>3, 7, 14</td>
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<td></td>
<td>Adoption</td>
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<td>12</td>
</tr>
<tr>
<td>2 Speculation of Risks and Inability to Trust the system</td>
<td>Security concerns</td>
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<td></td>
<td>6, 9, 10, 13</td>
</tr>
<tr>
<td>3 Integration to Lifestyle</td>
<td>Compatibility with lifestyle</td>
</tr>
<tr>
<td></td>
<td>19, 22, 24</td>
</tr>
<tr>
<td>4 Speculation of user friendliness and flexibility</td>
<td>Ease of use</td>
</tr>
<tr>
<td></td>
<td>7, 11</td>
</tr>
<tr>
<td></td>
<td>Discomfort</td>
</tr>
<tr>
<td></td>
<td>10</td>
</tr>
<tr>
<td>5 Age</td>
<td>Demographic Characteristics</td>
</tr>
<tr>
<td></td>
<td>17, 20</td>
</tr>
<tr>
<td>6 Peer Influence</td>
<td>Social Trends</td>
</tr>
<tr>
<td></td>
<td>18, 21, 25</td>
</tr>
<tr>
<td>Codes from Interviewees</td>
<td>Categories</td>
</tr>
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<td>-------------------------</td>
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</tr>
<tr>
<td>1 Can be used to pay bills</td>
<td>Advantages of mPayment system</td>
</tr>
<tr>
<td>2 Faster means of payment</td>
<td>Advantages of mPayment system</td>
</tr>
<tr>
<td>3 No physical appearance required</td>
<td>Ease of use</td>
</tr>
<tr>
<td>4 It is handy in emergency situations</td>
<td>Advantages of mPayment system</td>
</tr>
<tr>
<td>5 It can be used to send monetary gifts</td>
<td>Advantages of mPayment system</td>
</tr>
<tr>
<td>6 It is not safe</td>
<td>Security Concerns</td>
</tr>
<tr>
<td>7 No special skills required in setting up</td>
<td>Ease of use</td>
</tr>
<tr>
<td>8 It can be used for booking flights</td>
<td>Advantages of mPayment system</td>
</tr>
<tr>
<td>9 I cannot trust mPayment</td>
<td>Security Concerns</td>
</tr>
<tr>
<td>10 I don’t feel safe sharing my mobile number with strangers</td>
<td>Discomfort</td>
</tr>
<tr>
<td>11 I find it easy to use hence my reason for adopting it</td>
<td>Ease of use</td>
</tr>
<tr>
<td>12 I don’t think I would adopt it since there are alternatives</td>
<td>Adoption</td>
</tr>
<tr>
<td>13 I don’t find mobile banking or any internet banking safe</td>
<td>Security Concerns</td>
</tr>
<tr>
<td>14 I like to use swish because it is quite fast</td>
<td>Ease of use</td>
</tr>
<tr>
<td>15 I use it to send monetary gifts</td>
<td>Advantages of mPayment system</td>
</tr>
<tr>
<td>16 It is safe for performing monetary transactions</td>
<td>Advantages of mPayment system</td>
</tr>
<tr>
<td>17 I feel I am too old for mPayment system</td>
<td>Demographic Characteristics</td>
</tr>
<tr>
<td>18 I use the system to share bills between my friends/families</td>
<td>Social Trends</td>
</tr>
<tr>
<td>19 It fits into my day-in, day-out activities</td>
<td>Compatibility with lifestyle</td>
</tr>
<tr>
<td>20 Technology is too fast for me</td>
<td>Demographic Characteristics</td>
</tr>
<tr>
<td>21 I don’t have the opportunity to buy some items online without swish</td>
<td>Social Trends</td>
</tr>
<tr>
<td>22 I had difficulties in synchronization when I changed my phone</td>
<td>Compatibility with lifestyle</td>
</tr>
<tr>
<td>23 It is very a very convenient means of payment</td>
<td>Advantages of mPayment system</td>
</tr>
<tr>
<td>24 I think it is more compatible with small value items</td>
<td>Compatibility with lifestyle</td>
</tr>
<tr>
<td>25 I started using swish because my friends are using it</td>
<td>Social Trends</td>
</tr>
</tbody>
</table>