The Acceptance of Mobile Banking by Organizations

An exploratory study on mobile banking and factors influencing its acceptance by organizations
Title: The acceptance of mobile banking by organizations.
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Authors: Casper Brundel & Soumaya Azrioual

Tutor: Christofer Laurell

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Abstract

Background – Existing literature suggest that the growing mass distribution of mobile devices like cell phones allows nearly every business to be connected through mobile devices. This mobility evolution is very likely to have a long-term impact on the design and delivery of future financial services. Consequently, it was predicted that there would be major growth in mobile banking usage within organizations in the future. Other research even suggested mobile banking would become one of the most important applications of mobile commerce. Therefore, this is reason to explore what influences the adoption of mobile banking by organizations, since previous research was only focused on consumers.

Purpose – The purpose of the thesis is to explore which factors are of influence to the acceptance of mobile banking. Most previous research is solely focused on the mobile banking acceptance among consumers, leaving a gap in the literature on the acceptance factors for firms. As a result, this thesis aimed at exploring the factors influencing the acceptance of mobile banking among organizations.

Method – The study is of qualitative nature and the empirical data is collected through semi-structured, in-depth interviews with 12 small to medium-sized organizations located in Sweden. As the study seeks to explore and gain in-depth understanding on the topic of mobile banking and eventually develop a model based on these observations, it has an inductive research approach in which the interpretivist seeks support for the research.

Findings – The empirical findings present six factors influencing the acceptance of mobile banking by organizations. Organizations are positively influenced by the workflow, efficiency, facilitating conditions, security and trust they receive from the usage of mobile banking. The workflow influences the perceived usefulness, the facilitating conditions and the influence the perceived ease of use and finally the security and trust influence the perceived credibility. Eventually these five dimensions influence the behavioural intention towards the usage of mobile banking and eventually the acceptance.
Acknowledgements
Hereby, we would like to express our gratitude and appreciation to everyone that was involved in the process of this thesis. A special thanks to our tutor Christopher Laurell, who directed us through this entire process and provided us with meetings and feedback to keep us on the right track. Next, the exceptionally helpful and interested company representatives that provided a great amount of in-depth information. This research would not have been the same without it and we appreciate every comment, detailed explanation and constructive feedback that helped to shape and finalize this master thesis.

Thank you,
Casper Brundel & Soumaya Azrioual
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Abbreviations
PU Perceived usefulness
PEOU Perceived ease of use
PC Perceived credibility
IT Information technology
GVA Gross Value Added
ID Identification
QR Quick response
IBAN International Bank Account Number
Wi-Fi Wireless Fidelity
App Application
OCR Optical Character Recognition

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1. Introduction

The growing mass distribution of mobile devices like cell phones and tablets combined with a shift in consumer behaviour allows nearly every business to be connected through mobile devices. This mobility evolution is very likely to have a long-term impact on the design and delivery of future financial services (Kearney, 2012). Furthermore, this dynamic setting forces banks to decide on whether they want to invest in mobile banking as this concept provides an emerging way to access financial services through mobile devices and thus an additional dimension of bank and customer interaction. In 2012, the majority of decision makers in the banking industry forecasted mobile banking to fundamentally change their business model (Steria Mummert, 2012). In fact, mobile devices were even expected to partly reform the traditional banking sections (Kearney, 2012). Moreover, back in 2008 Gartner’s Hype Cycle for mobile applications already forecasted mass institutionalization for mobile banking, latest in 2013 (Gartner, 2008). Other research even suggested mobile banking would become one of the most important applications of mobile commerce and that the combination of tech-savvy consumers and wireless technology would make the market ideal for mobile banking (Laukkanen & Lauronen, Luo, Li, Zhang & Shim, 2010; Stewart, 2009).

Nonetheless, contrary to the clearly positive expectations, the adoption of mobile banking remains low even among established markets (Teo, Tan, Cheah, Ooi & Yew, 2012). In 2011, only eight percent of consumers used mobile banking services (TNS Infratest Global & Kantar, 2011). Indicating that the development is still in the early adopter phase according to the definition of Rogers’s adoption theory (Rogers, 2003). This thesis aims to explore which factors are of influence to the acceptance of mobile banking. Most previous research is solely focused on the mobile banking acceptance among consumers, leaving a gap in the available literature on the acceptance factors for organizations (Tero Pikkarainen, 2004).

As a result, this thesis will explore the factors influencing the acceptance of mobile banking among organizations. Particularly, the small to medium-sized businesses. With mobile banking being formerly considered as an innovative technology, it is particularly interesting to observe this research topic further in Sweden, known to be ranked at a top position in the Global Innovation Index (Cornell University, INSEAD, WIPO, 2017).

This thesis will contribute by filling the gap in the currently available research on mobile banking usage by adding an organization's perspective to available literature that is mainly
concentrated on consumers. On a practical basis, the results will provide guidance to existing banks on how to approach and convince businesses into using mobile banking.

The coming parts of this paper are divided in the following structure; in Chapter 2, an overview of online banking and mobile banking studies is presented. Chapter 3 provides the research methodology and design used and Chapter 4 will present the empirical findings. Chapter 5 will analyse the main findings of the study and compare this with the previous literature. Next, Chapter 6 will present the discussion that goes beyond the scope of this research together with the limitations and directions for future research. Finally, Chapter 7 will cover the conclusion and implication of the study.
2. Frame of reference

This chapter provides an overview of the existing literature on both online and mobile banking. The reader will be introduced to the most relevant theories and concepts concerning technology acceptance and mobile banking. Furthermore, six dimensions influencing the acceptance of technology will be discussed.

2.1 Online banking

Online banking is defined by Steward (2009) as the process of carrying out banking transactions through the use of a personal computer, which is linked via the internet to a bank's system. This is also known as e-banking. Online banking covers all banking processes that are digitized through the internet such as fund transfers, account balance and transaction history inquiries. Despite the fact that traditional, branch-based retail banking is still the most widespread method for conducting banking transactions, the rapid change of mobile and wireless technology has transformed the way financial services are conducted (Luarn & Hui Lin, 2005). Due to the fast growth of the internet over the past decades and improvement of internet technology, it has become inevitable for banks to provide online banking services for their customers (Wang, Wang, Lin & Tang, 2003).

2.2 Mobile banking

Conducting financial services through a mobile device is also known as mobile banking, which is a form of electronic banking or online banking. Mobile banking (m-banking) is defined by Chong (2013) as online transactions conducted through mobile devices (e.g. smartphones and tablets) using wireless telecommunication networks. Mobile banking is defined by Fenu & Pau (2015) as a banking channel that allows for the interaction between banks and their customers through the use of applications or browsers on mobile devices. It describes the financial service transactions than can be made through the use of mobile communication technology. Contrary to online banking, for mobile banking at least one part of the banking transaction needs to be conducted through the use of a mobile device. Another requirement for mobile banking is that for the transactions to be conducted, the presence of mobile networks and/or wireless telecommunication networks are necessary (Malaquias & Hwang, 2016). Wireless technologies like Near Field Communication or Bluetooth or a mobile network like Universal Mobile Telecommunications System (UMTS) are examples of this (Moser, 2015). In comparison to traditional banking channels, mobile banking is more convenient, flexible and universal. This
is beneficial to both banks and customers, because the possibility of offering financial services through mobile devices, results in cost-efficient and personalized services (Wessels & Drennan, 2010).

2.2.1 Adoption of Mobile Banking

Nowadays, the general adoption of mobile banking remains low, clearly indicating that a lot of the optimistic expectations and predictions experts had for the mobile banking industry for the past decade have not taken place, even in established markets (Teo, Tan, Cheah, Ooi & Yew, 2012). An example of this is illustrated by commercial banks in Taiwan who have been trying to introduce mobile banking systems in Taiwan for the past few years, to reduce costs and improve their operations. So far, the process of designing and creating mobile banking systems has cost the banks over millions of dollars. These mobile banking systems are either barely used or remain unnoticed by their customers despite the bank’s effort to make them available and well developed (Luarn & Hui Lin, 2005).

Another example of the low adoption rate of mobile banking relates to the US market, where in 2011 only eight percent of the customers used their mobile devices for conducting financial services (TNS Infratest Global & Kantar, 2011). Researchers suspect that this could be attributed to the fact that mobile banking is more of a fashionable concept instead of an institutionalized concept. This raises the question whether banks should involve themselves in mobile banking and introduce the service to their customers (Dewan, 2010).

A few American banks who adopted mobile banking early on, were forced to terminate their mobile banking services due to the shortage of use of the mobile banking service by customers. This trend of low numbers of mobile banking users, has even been experienced in markets with high mobile devices penetration and high mobile affinity (Teo, Tan, Cheah, Ooi & Yew, 2012; Moser, 2015). Several reports on mobile banking displayed that the potential customers the banking systems have been built for, may not be using the systems despite it being accessible and available (Hoehle, Scornavacca & Huff, 2012).

Currently, the adoption of mobile banking is still a work in progress, however data from the year 2000 shows us that the prediction for mobile banking was huge. In the past decade, the convenience of mobile banking in comparison to traditional banking channels led to great expectations about the potential of mobile banking to the financial industry (Kleijnen, de Ruyter, Wetzels, 2004; Rivari, 2005; Wessels & Drennan, 2010). Numerous optimistic
predictions were made about the future of mobile banking, such as Gartner’s (2008) expectation of universal broad adoption of mobile banking by the year of 2013, the massive growth of mobile banking which would exceed established retail banking channels like ATM’s, online banking and telephone banking and the prediction of 150 million mobile bank users in 2011 (Juniper Research, 2009; Stewart, 2009). Decision makers in the banking industry expect fundamental changes to the traditional business model of banking, due to mobile applications on smartphones. Due to the smartphone adoption rage, others believed that mobile commerce’s most important applications would be related to mobile banking, because application and browser-based mobile would become increasingly important (Stewart, 2009). This can be attributed to the fact that mobile banking offers an emerging way of accessing financial services through mobile devices. This creates another way of interaction between banks and their customers. Hence, it was predicted by the decision makers that mobile devices will eventually partly replace the traditional banking branches (Suoranta & Mattila, 2004).

Finally, it was forecasted that the use of mobile devices to conduct banking transactions would increase significantly in the near future. This growth in the use of mobile banking services will be influenced by the confidence and trust of the consumer in the service and depend on the advances in the technology (Weber & Darbellay, 2010).

2.3 Adoption of Information Technology

During the last three decades, companies have repeatedly dedicated significant amount of resources into the exploration and implementation of emerging information technologies (IT). One specifically interesting trend that followed was the continuous interest in innovative IT enhanced sales and marketing possibilities. Consequently, information systems gained an increasing interest within marketing literature and a growing stream of research has since been dedicated to this topic.

More recently, research has been focused on understanding the adoption of information systems by end-customers in different service contexts (Laforet & Li, 2005; Lin, 2011; Pagani, 2004). The literature on the adoption of information technologies created a variety of theoretical models (e.g. Davis, 1989; Davis, Bagozzi, & Warshaw, 1989; Rogers, 1995; Venkatesh, Morris, Davis, & Davis, 2003).

More specifically, in the case of information technology related to banking services, one major technological development has been online banking. Followed by the further advancement of
mobile banking, which is even considered as one of the most promising and important developments within the banking business (Linn, 2011). Mobile banking has also been found to evolve much faster than non-mobile online banking (Laukkonen, 2007).

2.4 Diffusion of innovation

Diffusion of innovation is related to the explanation on what makes innovation spread rapidly or fail. Diffusion academics presented five determinants for the success of an innovation for individual adopters namely; relative advantage, compatibility with existing values and practice, simplicity and ease of use, trialability, observable results. These factors have been found to be used by potential adopters to evaluate the innovation (Rogers 2003).

<table>
<thead>
<tr>
<th>Factor</th>
<th>Explanation</th>
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<tbody>
<tr>
<td>Relative advantage</td>
<td>Degree of perceived relative advantage from economic, social prestige, convenience or satisfaction perspective.</td>
</tr>
<tr>
<td>Compatibility with existing values and practices</td>
<td>Degree to which the innovation is considered consistent with needs of potential adopters, values and past experiences. Innovations that are compatible are more likely to be adopted rapidly.</td>
</tr>
<tr>
<td>Simplicity and ease of use</td>
<td>Degree of perceived difficulty to understand and use the innovation.</td>
</tr>
<tr>
<td>Trialability</td>
<td>Degree of an innovation being capable for testing on a limited basis. If triable, an innovation presents less risk and is more likely to be adopted.</td>
</tr>
<tr>
<td>Observable results</td>
<td>Degree of to which it is visible to notice results of the innovation. This can lower uncertainty and increase the likeability to adopt the innovation.</td>
</tr>
</tbody>
</table>

Table 1 - Diffusion of Innovation Theory - (Rogers, 2003)

Nevertheless, organizations oftentimes face more complex decision-making processes on technology adoption with their own procedures and criterion. Consequently, organizations tend to focus on different factors to evaluate whether or not to adopt an innovation. Three identified characteristics for the decision-making process within organizations include; tension for
change, compatibility, and evaluation of implication (observable results) (Greenhalgh, Robert, Macfarlane, Bate & Kyriakidou, 2004). A better understanding in the underlying components that affect the diffusion of an innovation can help identify and categorize elements that are influencing the adoption of mobile banking as an innovative technology within organizations.

2.5 Drivers of Bank Adoption

The most important determining factor for banks to decide upon any service innovation has typically been the cost and benefits (Barnes & Corbitt, 2003). Generally cost savings have directed the strategic decision-making in business (Lu Stout, 2007) which also showed in the previous adoption of electronic channels in the banking sector (Jayawardhena & Foley, 2000). Cost considerations can also form a barrier for banks to adopt internet banking (Thulani, Kosmas, Collins & Lloyd, 2011) even though it has been found that mobile banking can also generate additional revenue (Jones, 2014). Banks have also been found to be driven by the convenience and flexibility that can be offered to customers through internet banking, combined with the possibility to cross-sell (Herzberg, 2003). However this has been debated numerous in later research (Scornavacca & Hoehle, 2007; Parvin 2013).

Another considerable factor for the adoption to offer online banking has been to strengthen the bank-customer relationship (Tiwari, Buse & Herstatt 2007). Simultaneously, Parvin (2013) found that the adoption of internet banking was to obtain increased customer satisfaction, competitive pressure and financial inclusion (Jones, 2014). The numerous findings on the drivers indicate the degree of difficulty to identify a single most important driver for the adoption of internet banking and this may possibly be similar in the case of mobile banking adoption.

2.6 Mobile banking adoption

Tiwari, Buse & Herstatt (2007) studied mobile banking as a business strategy for banks and identified that key drivers were the potential competitive advantage and enhancement of brand image that can be gained. Tiwari, Buse & Herstatt (2007) contribute the growth and acceptance of mobile banking to demographic developments and growing demands for mobility of services, whereas Faqih and Jaradat (2015) consider the evolution of smartphones to be a key driver. Moreover, the degree of adoption and usage also differs per nation, particularly between developing and developed countries. Factors including culture, security, politics, economy, technology and society have been found to be of importance in explaining this difference (Faqih
In addition, mobile markets between countries can differ due to a contrast in value chain dynamics, available technology and government regulation (Scornavacca & Hoehle, 2007).

### 2.7 Dimensions of technology acceptance

Previous studies and research were carried out with the goal to identify the determinants or factors that influence the acceptance of technology from a consumer perspective. Since mobile banking is a category of technological innovation and the goal is to determine the factors that influence the acceptance of mobile banking by organizations, it becomes relevant to use previous studies and research on technological innovation adoption and factors that influence it (Chong, Ooi, & Lin, 2010).

To predict attitude towards the use of new technology, it was proposed that both the perceived ease of use (PEOU) and perceived usefulness (PU) can be used for this prediction (Davis, 1989). Perceived ease of use is believed to be the predictor of perceived usefulness. Furthermore, the perceived ease and perceived usefulness then affect the behavioural intention to directly use a particular system (Venkatesh, Morris, & Davis, 2003). Essentially, the adoption of technology by users originates from the dimensions perceived ease of use and perceived usefulness, which in turn influences and determines the attitude towards the use of the technology. Finally, this generates a reflection of the user loyalty due to the creation of intention to use the technology (Sikdar, Kumar, & Makkad, 2015). Information systems researchers have previously investigated and replicated these factors, to predict the individual acceptance of various particular corporate IT systems (Luarn & Hui Lin, 2005). PEOU and PU are dimensions that can explain what causes consumers to accept or reject information technologies and will be discussed more detailed in the following section (Davis, 1989).

#### 2.7.1 Perceived usefulness (PU)

Perceived usefulness is defined as; “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis 1989, p 320). This means that potential users of online mobile banking will adopt the system based on specific terms. These terms could be saving time by not having to go to the bank physically, easier access to mobile devices like smartphones and tablets in comparison to having to open your laptop and/or start your computer and the difficulty of carrying it with you everywhere and finally the improvement of efficiency. So basically, the user needs to get something useful out of the
system in return (Chong, Ooi, & Lin, 2010). A technological system that has a high perception of usefulness makes users believe that there is a relation between their positive performance and the use of the particular system (Veríssimo, 2016).

Furthermore, according to previous studies PU acts as a predictor of the behavioural intention of consumers to accept or reject the technology. It was confirmed by Davis, Bagozzi, and Warshaw (1989) that PU is the predictor of intention to use information technology. It has been implied that PU proposes that using mobile banking in the work environment leads to an improvement of job performance, increases the productivity of the use and enhances the effectiveness and usefulness of the job (Arahita and Hatammimi, 2015; Wibowo, 2008).

Finally, previous research revealed that there was a positive correlation between perceived usefulness and the adoption of mobile banking in the work environment (Pikkarainen, Pikkarainen, Karjaluoto & Pahnila, 2004). Cheong and Park (2005) concluded that the activities and intentions of mobile usage in the work space were positively affected by the perceived usefulness. Related to this thesis, the PU would predict whether organizations intend to use mobile banking and therefore accept or reject the technology. (Hamid, Razak, Bakar & Abdullah, 2016).

### 2.7.2 Perceived ease of use (PEOU)

Perceived ease of use is defined as; “the degree to which the prospective adopter expects the technology adopted to be a free effort regarding its transfer and utilization” (Davis 1989, p 320). In simpler terms the degree to which a user believes that using a particular system or service would be free of effort (Davis, 1989). This means that if mobile banking is perceived as easy to use, hassle free and efficient by the potential users, the chances of willingness and intention to use the system increase greatly (Chong, Ooi, & Lin, 2010). In the context of this thesis, the PEOU refers to the extent to which organizations believe that the use of mobile banking is efficient and free of effort.

If the system of mobile banking is relatively easy to use, organizations will be more encouraged to adopt the system, learn how to use it and eventually continue to use it in the future (Hamid, Razak, Bakar & Abdulllah, 2016). Consumers are more likely to adopt a technology if the technological system is easy to use (Hatammimi & Arahita, 2015). The higher a consumer perceives the ease of use of a technological system, the higher usage level of the technological system. This is due to the fact that the perception of the ease of use of a technology impacts and
influences the behaviour of consumers and therefore also their actions, thus leading to a higher rate of usage of the technology (Hatammimi & Arahita, 2015). Previous research carried out by Guriting and Ndubisi (2006) in Malaysia concluded that the results of the perceived ease of use of online banking significantly positively impacted the behaviour and intentions of consumers towards the usage of online banking. Consumers of banks in Malaysia had a tendency to adopt mobile banking mainly because they thought the utilization of mobile banking was easy (Hatammimi & Arahita, 2015). Thus meaning they had a positive perception of the ease of use mobile banking, which influenced their behaviour and intention towards mobile banking leading to acceptance and adoption of the technology.

According to previous research, PEOU influences the current and future intention to use a technology system and is therefore also a predictor of future user intention (Chiu & Wang, 2008). This means that related to this study, PEOU predicts the extent to which organizations would use mobile banking in the future.

2.7.3 Perceived credibility (PC)

Other factors that may influence user acceptance must be researched and addressed, since perceived ease of use and perceived usefulness might not fully explain behavioural intentions towards the acceptance of technology (Davis, 1989). This leads to the need for additional factors that would be more effective at predicting the user acceptance of mobile banking. Previous studies have made an attempt at researching other factors that could influence user acceptance, by researching additional factors such as, perceived credibility and trust (Wang, 2003); Gefen, 2003).

The trust related factor perceived credibility was introduced to research the system user’s privacy and security concerns in the acceptance of online banking in general (Wang, 2003). A general definition of trust is the extent to which a person is attitudinally willing to trust others (Wang, 2003). A definition of trust more accurate to this study and the topic of technology acceptance is to how consumers or organizations perceive the trust of a technological system and their perception of its trustworthiness (Dahlberg, Mallat, & Öörni, 2003). The importance of trust has to do with whether customers can overcome their perceptions of risk and uncertainty to eventually let them engage with technological vendors (Kacmar, Choudhury, & D, 2002). In this study trust describes how organizations perceive the trust of mobile banking and whether they think the system is trustworthy or not. Previous studies stressed that a greater degree of trust is necessary with an online transaction environment compared to a face-to-face physical
transaction (Lee and Turban, 2001), which is why trust has been often found to be a challenging factor for online transactions due to the absence of physical persons or interaction. Trust will give users a sense of guarantee that they will acquire future positive outcomes (Gefen, Karahanna & Straub, 2003). Alternatively, trust enables users to believe that mobile service providers have enough ability to provide useful service to them (Tao Zhou, 2014). Consumers provided with ubiquitous service and connection have reported a positive effect on trust in mobile transactions (Lee, 2005).

According to Chellappa and Pavlou (2002) the security of a payment can be defined as “the flow of information originating from the right entity and reaching the intended party without being observed, altered or destroyed during transit and storage” (Shaw, 2014). Users’ main concern when conducting mobile payments is related to the security (Dahlberg, Mallat, Ondrus & Zmijewska, 2008; Hartono, Holsapple, Kim, Na & Simpson, 2014). Since personal financial data is stored on a mobile phone for mobile payments, users’ sense of security diminishes because the mobile phone can easily be lost or stolen (Shaw, 2014).

This research will study the influence on technology acceptance of an additional dimension, which is perceived credibility. This additional dimension will reflect the concerns organizations have regarding privacy and security by using mobile banking, and how this influences their acceptance of the system. Essentially, this means that perceived credibility predicts the extent to which organizations’ intentions are influenced by the perceived credibility. Thus for this study it will be used to determine to what extent the acceptance of mobile banking by organizations is influenced by the perceived credibility and which factors influence the perceived credibility.

2.7.4 Perceived Risk

Perceived risk has been described as “a felt uncertainty regarding possible negative consequences of using a product or service (Featherman & Pavlou 2003). Previous studies have shown that perceived risk can interfere with the adoption of information systems when perceived consequences of the adoption generate a feeling of uncertainty, discomfort, anxiety, conflict, concern, or cognitive dissonance (Featherman & Pavlou 2003). Cunningham (1967) classified perceived risk under six dimensions namely: performance, financial, time, psychological, social and physical risk. However, these original dimensions included physical risk, which is not included in this study since online mobile banking as a service is not
considered to be of any potential physical harm and therefore not applicable to this study. Instead, privacy risk was added. Privacy risk concerns have been previously found to be a major reason for not adopting mobile banking, but more in a consumer context (Kim, Shin & Lee, 2009). This detailed theory helps to distinguish between different types perceived risks to better understand and categorize possible risk factors that hinder organizations from adopting mobile banking.

<table>
<thead>
<tr>
<th>Perceived risk Facet</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Performance Risk</td>
<td>The possibility of the product malfunctioning and not performing as it was designed and advertised and therefore failing to deliver desired benefits (Grewal, Gotlieb &amp; Marmorstein, 1994).</td>
</tr>
<tr>
<td>Financial Risk</td>
<td>The potential expenses associated with the initial purchase price as well as the subsequent maintenance cost of the product. Also, the recurring potential for financial loss due to fraud (Grewal, Gotlieb &amp; Marmorstein, 1994).</td>
</tr>
<tr>
<td>Time Risk</td>
<td>Consumers may lose time when making a bad purchasing decision by wasting time researching and making the purchase, learning how to use a product or service only to have to replace it if it does not perform to expectations (Kim, Shin &amp; Lee, 2009).</td>
</tr>
<tr>
<td>Psychological Risk</td>
<td>The risk that the selection or performance of the producer will have a negative effect on the consumer’s peace of mind or self-perfection (Mitchell, 1992). Potential loss of self-esteem (ego) from the frustration of not achieving a buying goal.</td>
</tr>
<tr>
<td>Social Risk</td>
<td>Potential loss of status in one’s social group as a result of adopting a product or service (Cunningham 1967).</td>
</tr>
<tr>
<td>Privacy Risk</td>
<td>Potential loss of control over personal information, such as when information about you is used without your knowledge or permission. The extreme case is where a consumer is “spoofed” meaning a criminal uses their identity to perform fraudulent transactions (Kim, Shin &amp; Lee, 2009).</td>
</tr>
</tbody>
</table>
**Table 2 - Perceived Risks related to technology adoption adapted from (Cunningham 1967 & Kim, Shin & Lee, 2009)**

### 2.7.5 Social influence

Social influence is related to the extent to which consumers perceive that others within their close social group such as family and friends, believe they should use a particular technology. It has a proven influence on the behavioural intention to use a certain technology in a consumer context (Venkatesh, Morris, Davis, & Davis, 2003), and may be valuable to consider in an organizational context. It is constructed out of three elements which can be seen in the table below:

<table>
<thead>
<tr>
<th>Element</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>Subjective norm</td>
<td>A person’s perception that most people who are important to him/her think he/she should not perform the behaviour in question (Ajzen 1991)</td>
</tr>
<tr>
<td>Social Factors</td>
<td>The individual’s internalization of the reference group’s subjective culture, and specific interpersonal agreements that the individual has made with others in specific social situations (Thompson, Higgins &amp; Howell, 1991)</td>
</tr>
<tr>
<td>Image</td>
<td>The degree to which use of a technology or innovation is perceived to enhance one’s image or status in one’s social system (Moore &amp; Benbasat 1991).</td>
</tr>
</tbody>
</table>

**Table 3 - Social Influence (Venkatesh, Morris, Davis, & Davis, 2003)**

### 2.7.6 Facilitating Conditions

The theory states that while social influence is expected to influence the behavioural intention to adopt a certain technology, facilitating conditions determine the technology use (Venkatesh, Morris, Davis & Davis, 2003). Facilitating conditions refers to the consumer’s perception of the resources and support available to execute a certain behaviour (Brown & Venkatesh 2005; Venkatesh, Morris, Davis & Davis, 2003). This definition embodies concepts from three different elements; 1) Perceived behavioural control, defined as perception of internal and
external constraints on behaviour and encompasses self-efficacy, resource facilitating conditions, and technology facilitating conditions (Ajzen 1991; Taylor & Todd 1995). 2) External facilitating conditions, defined as objective factors in the environment that observers agree make an act easy to do (Thompson, Higgins & Howell, 1991). 3) Compatibility, defined as the degree to which an innovation is perceived as being consistent with existing values, needs and experiences of potential adopters (Moore & Benbasat 1991).

Figure 1 - Construct of Facilitating conditions (Brown & Venkatesh 2005; Venkatesh, Morris, Davis & Davis, 2003)
3. Research methodology

*This chapter of the thesis explains the research process and methods that have been used in this study to answer the research question “What are determining factors for acceptance of mobile banking by organizations?” The research philosophy, approach, strategy, design and analysis will be clarified. Furthermore, the validity, reliability, ethics and credibility of this thesis will be addressed.*

3.1 Research philosophy

The research philosophy deals with and relates to the development and nature of knowledge. Since developing knowledge is of main importance when researching a specific field, it is important to specify which type of research philosophy was carried out. This helped to identify in which manner data about a research phenomenon should be acquired, analysed and applied (Saunders, Lewis, & Thornhill, 2012). The use of philosophical arguments helped to guide the choices made in the research design, data collection and analysis of this research. Through guidance and proper use of arguments in the research philosophy, the possibility arises to go more into depth in the methodology which will eventually make the methodology part more coherent (Chalmers, 1975).

The research philosophy that is adapted, is based on how the researcher views the world and the assumptions that are derived from those views. These assumptions guided the selection of the method and research strategy. An example of this is when a researcher is concerned with the feelings and attitudes of workers there will be a different view on how research should be conducted compared to when a researcher is more concerned with facts. The ideas on which methods to use will vary, as well as the views on what is useful and important (Saunders, Lewis, & Thornhill, 2012). There are four main research philosophies mentioned in the research by Saunders (2012) that can be adapted in research, which includes pragmatism, positivism, realism and interpretivism.

An interpretative approach was adopted since it advocates learning the way people assign meanings and values to objects or events, how they view the world and their interpretation of what they encounter, is at the core of understanding (Rubin, 2005). Facts are not as important as meanings and human interest. With the emphasis on conducting research on the acceptance of mobile banking and the focus on understanding this phenomenon from the point of view
from organizations and the way they view and relate to it (Saunders, Lewis, & Thornhill, 2012; Dilley, 2005). Furthermore, since this research examines human behaviour in a qualitative manner, which is the acceptance of mobile banking in organizations, an interpretative approach is the best choice (Malhotra, 2012). The interpretative approach enabled the opportunity to collect data that is derived from human behaviour, perception and decisions. Following that, the collected data will be interpreted to understand the phenomena of the acceptance of mobile banking in organizations (Saunders, Lewis, & Thornhill, 2012).

### 3.2 Research Approach

Based on the reasoning that is adopted in research, three research approaches can be used. These is an inductive, deductive and abductive research approach (Saunders, Lewis, & Thornhill, 2012). This research used an inductive line of reasoning. Inductive reasoning occurs when the conclusion of a research is supported by the observations made during the research process. Generally, observations or existing knowledge are used to make a prediction about certain cases (Hayes, Swendsen, & Heit, 2010). This research started with collecting data to explore a phenomena and eventually develops a theoretical model by the authors based on the observations made. An inductive research approach typically goes from an observation to theory, meaning from specific to general. Then the observations are analysed and eventually summarized in a theory (Saunders, Lewis, & Thornhill, 2012).

An inductive approach allows for the understanding of the way in which research subjects understand and view the world. Hence, making it the most relevant way for this research approach as this research focused on understanding the behaviour towards the acceptance of mobile banking in organizations. An inductive line of reasoning provided the opportunity to get more insight into the nature of the issue through observation and in-depth questioning and the possibility to analyse these observations (Abrams, 1980).

An inductive approach was chosen to research the acceptance of mobile banking in organizations. Conducting a qualitative, inductive research enabled the opportunity to build a comprehensive explanation about the nature of the acceptance or refusal by observing the reactions and behaviour towards the specific research phenomena of mobile banking. Finally, as discussed in the previous section, an interpretivist approach was chosen to research the
acceptance of online mobile banking in organizations. Since an interpretivist often seeks to find support in induction, an inductive line of reasoning was chosen for this research (Dilley, 2005).

3.3 Research design

Generally, there are three types of research methods that can be conducted: exploratory, descriptive or explanatory (Yin, 2011). This will depend on the way the research question is formulated. The research question can then help direct the purpose. However, similar to the research question, the research can have more than one purpose and also change over time (Robson, 2002). The authors decided to conduct an exploratory qualitative research with a flexible approach for this study to derive insights from the semi structured interviews. Saunders, Lewis & Thornhill (2012) noted that a flexible research is frequently used to obtain new insights on a certain topic. Furthermore, it is noted that qualitative data is mostly focused on meanings communicated through words, collections and results requiring to be classified into categories. The use of interviews as a method to conduct qualitative research also serves the goal to obtain an understanding about the concerns from the interviewee on the related subject (Kvale & Brinkmann, 2009).

3.4 Research Strategy

3.4.1 Qualitative

Both quantitative and qualitative research can accomplish research objectives that the other is not capable of doing and vice versa. Depending on the research context, the right approach should be selected to allow a successful outcome (Babin & Zikmund, 2016). The chosen research method for this thesis is a qualitative research, because the emphasis in this research is to gain in-depth sight and understanding of the acceptance of mobile banking in an organizational context.

Qualitative research enabled the researchers to put the focus on the exploration of meanings and insights of mobile banking by organizations and obtain more understanding on the research phenomenon mobile banking. Another reason to carry out a qualitative research is to discover not only novel concepts but also get an understanding of underlying motives of organizations regarding their acceptance of mobile banking and which factors influence this acceptance, since qualitative research often enables the human emotions to surface (Babin & Zikmund, 2016).
Qualitative research is also associated with an interpretive philosophy and commences with an inductive approach hence making it appropriate for this research (Saunders, Lewis, & Thornhill, 2012).

3.4.2 Interviews
Qualitative research through interviews was used as a data collection method and the collected data was categorized as part of the data analysis procedure. This qualitative research generated non-numerical data like images and words (Saunders, Lewis, & Thornhill, 2012).

An interview is a purposeful discussion between two or more people (Kahn & Cannell 1957). Interviews can be categorized in different ways, one that is commonly used is based on the level of formality and structure and consists of: structured interviews, semi-structured interviews and unstructured or in-depth interviews (Saunders, Lewis, & Thornhill, 2012). Another kind of classification is between standardised and non-standardised interviews (Healey 1991; Healey and Rawlinson 1993, 1994). Finally, Robson (2002) makes another differentiation between respondent (participant) interviews and informant interviews. Naturally, there are overlapping aspects between these various differentiations. As previously mentioned, the authors determined that the thesis is an exploratory study, resulting in in-depth interviews and semi-structured interviews as the preferred method of data collection, as they can be very helpful to find out what is happening and to seek new insights (Robson, 2002).

3.4.2.1 Standardised - non-standardised
When constructing the interview questions it is important to decide on the standardization of the questions. The level of standardization relates to the level of freedom and responsibility available to the interviewer when designing the questions. This research adopted a low level of standardization to give the interviewer the option to design questions during the interview (Robson, 2002).

Since this thesis is adopting an interpretivist epistemology, the interviews had a semi-structured and in-depth structure, which allowed to probe answers from the interviewees to explain and extend their responses. This is essential when the objective is to understand the meaning that participants assign to the described phenomena (Saunders, Lewis, & Thornhill, 2012). Finally, an interview is the most favourable approach to obtain data when there is a large number of questions to be answered, the questions are either complex or open-ended, and where the order and logic of the questioning process may need to be varied based on the individual (Easterby-Smith, Thorpe & Jackson, 2013; Jankowicz 2005).
For this research, the authors agreed to adopt a low level of standardization for the interview questions. It is expected that this will allow for more in-depth information to be collected from the questions. Furthermore, the structuring process will remain limited, allowing the respondents to answer the questions the way they prefer.

### 3.4.3 Interview Design

In preparation for the individual interviews several components were necessary to prepare to ensure a valuable data collection. Firstly, the interviewers had to ensure they had an adequate level of knowledge on the research topic and the organizational context. This helped to demonstrate credibility, assess the accuracy of responses and stimulate the interviewees to provide more detailed responses on the topic. Secondly, the interviewers provided relevant background information on the research topic and an explanation about frequently used terminology to ensure a common understanding. This can also help improve the credibility of the researcher as it shows the expertise together with the validity and reliability of the interview, as it gives the interviewee the possibility to prepare supporting organizational documents. Next was a careful consideration of the appropriateness of the location for the interview. Since this may be an influencing factor to participants, the locations were selected while aiming to combine convenience, comfort and where it was unlikely to be disturbed. Likewise, there was also a deliberate consideration about the appearance of the interviewer, as this may affect the perception of the interviewee, regardless of the way it affects the response, the resulting bias can influence the reliability of the information that is given (Robson, 2002). Resulting in the adoption of a similar style of dress to those that were being interviewed. Finally, the company representatives were asked whether they preferred to remain anonymous. Based on their choice, the organization name is either mentioned in this study or an alias is used for the representatives preferring to stay anonymous.

### 3.4.4 Interview Measures

The interviews consisted of both open and closed questions, this to leave room and initiate the respondent to express underlying thoughts and emotions behind initial answers. In order to get insights on the organizations’ PU, PEOU, PC, perceived risk, diffusion of innovation, social influence and service improvement regarding the use of mobile banking, interview question regarding these dimensions where stated by the interviewer. They were asked to assess the usefulness, convenience, credibility, risk, and improvement points of mobile banking and which factors or characteristics influence the acceptance of mobile banking within the organization.
Based on the findings derived from the interviews, factors and dimensions influencing the acceptance of mobile banking by organizations were identified. After the interviews had been conducted, recorded and transcribed they were processed through an extensive data analysis which included categorization.

3.4.5 Interview Distribution
In order to gather respondents for the interviews, small to medium-sized organizations were contacted that operate in Sweden. In addition, friends and acquaintances were approached and asked for possible interested parties. The interviews were conducted either in a physical face-to-face setting or electronically through platforms like Skype to better facilitate to the personal schedules of company representatives.

3.4.6 Interview Guides
Semi-structured interviews require an interview guide. This interview guide will be used consistently for each interview (Flick, 2007). The interview guide used in this research can be found in appendix 1.

3.5 Sampling Process

3.5.1 Defining the Population
The sample was selected from a larger population, defined as small to medium-sized Swedish organizations. Small to medium-sized organizations make up 99.8% of all organizations and nearly 60% of the country’s Gross Value Added (GVA), meaning the value of all goods and services produced (Eurostat, 2018). Moreover, with the study focused on the formerly considered innovative technology of mobile banking, Sweden has been selected as the country of interest due to the high ranking in the Global Innovation Index (Cornell University, INSEAD, WIPO, 2017). Small and medium sized organizations have up to 250 employees (Eurostat, 2018).

3.6 Method of data analysis
To analyse and interpret the empirical data, several qualitative data analysis methods can be used. The method of data analysis depends on the qualitative data method (Saunders, Lewis, & Thornhill, 2012). In this thesis, interviews were conducted to gather the necessary findings
derived from the outcome of the interviews. Therefore, it is of importance to define the data analysis methods before conducting the interviews (Kvale & Brinkmann, 2009).

The chosen method of qualitative data analysis used for this thesis consists of the steps data reduction, data display and drawing and verifying conclusions (Saunders, Lewis, & Thornhill, 2012). Below these steps are described and applied to this thesis based on the work of Miles & Huberman (1994):

**Data reduction:** In this step the collected data is transcribed and coded. Some parts of the data are also chosen to focus on selectively. Here the aim is to transform the data to eventually be able to shorten it. To synthesize the data, there are a number of methods that can be used for that. The method used in this thesis, will be coding the gathered data to be able to synthesize it. Coding can be defined as the process of labelling, organizing and compiling the gathered data with letters, symbols or numbers. It is generally understood that ‘“coding is analysis”’ because through linking and interpreting the data collection, the basis for developing an analysis is created due to coding (Impact centre for evaluation and research, 2012). The coding system that was developed for this research is based on the six dimensions of technology acceptance discussed in chapter 2. Each code represents one of the dimensions perceived ease of use, perceived usefulness, perceived credibility, perceived risk, diffusion of innovation, and service improvement. The collected data from the interviews was combined and synthesized under each dimension that relates to the answers in order to categorize the data. Eventually this led to a discussion of the findings covered in chapter 4.

**Data display:** This step aims to assemble and organize the condensed data from step 1 into visual displays such as networks. A network consists of a collection of boxes that contain brief descriptions that indicate key points or variables from the condensed data. These boxes are often linked by lines or arrows that describe the relationship between the boxes. The aim of networks is to identify patterns and relationships in the data.

**Drawing and verifying conclusions:** The last step is to draw a final conclusion based on the gathered data derived from the data display (Saunders, Lewis, & Thornhill, 2012; Miles & Huberman, 1994). Based on the findings discussed in chapter 4, additional factors that influence each dimension separately will be categorized under the dimensions and described in the analysis chapter 5.
3.7 Credibility and reliability of a qualitative study

To evaluate the quality of the research there are a few fundamentals a researcher has to deal with in order to eliminate the possibility of ending up with a wrong answer. At this stage, interpretivist and positivist researchers use different approaches to assess the quality of the research. A positivist researcher will mainly use the terms reliability, internal and external validity and construct validity to assess the quality of their research. An interpretivist researcher also uses terms to assess and establish the research quality. These terms are credibility and reliability are used to assess and possibly reject the qualitative study due to it being inappropriate (Saunders, Lewis, & Thornhill, 2012). Since the research that is carried out in this thesis is a qualitative research with an interpretivist approach, the terms credibility and reliability will be discussed and applied to this research by explaining how these terms will ensure the quality of this research.

3.7.1 Credibility

Credibility of a research is the first and most important element that needs to be established in a qualitative research to ensure trustworthiness. Credibility examines whether the research findings align with reality in order to ensure the truth of the research findings (Lincoln & Guba, 1985). There are several actions that were undertaken to ensure the credibility of this research:

First, a wide range of participants from different industries were used for the in-depth interviews to compare the several experiences, attitudes, feelings and behaviours of each individual industry against each other. This gives a greater insight into the research phenomenon of the acceptance of mobile banking in organizations. A wide range of participants per organization ensures the credibility of this study, because the more similar the findings are the higher chance of credibility (Maanen, 1983).

Second, every organization approached to participate in the interviews to collect the necessary primary findings for this research had the opportunity to refuse participation or the opportunity to withdraw from the research at any given point. This helped to ensure trustworthiness of the research and increase the credibility of the research findings (Shenton, 2004).

3.7.2 Reliability

Reliability refers to the extent in which your data analysis procedures and data collection techniques would yield consistent findings if the research was repeated by a different researcher or on another occasion (Saunders, Lewis, & Thornhill, 2012). It indicates the internal
consistency of the measurement used in research. Threats such as researcher error or participant bias need to be eliminated to ensure the reliability of a study (Babin & Zikmund, 2016). Since this thesis used qualitative techniques, various ways to enhance reliability in qualitative research will be discussed. However, it is important to keep in mind that it is nearly impossible to ensure that your qualitative research instrument is 100% reliable in a qualitative study (Reading Craze, 2017).

First of all, by making sure that the environment in which the interviews were conducted were identical, it was ensured that the respondents were not affected by differences in the environment. Furthermore, the interaction of the interviewers with the respondents remained the same in each of the interviews. It was essential for the interviewers to state the questions in a neutral manner without any double meanings or leading the respondents to a specific answer they had in mind, since formulating questions wrongly can lead to an unreliable research instrument. Finally, by conducting the interviews several times in a row before reaching any conclusions, the reliability of the research instrument was enhanced (Babin & Zikmund, 2016; Reading Craze, 2017).

3.8 Ethical Implications
To ensure no confidential information would be published in this thesis, the authors started the interviews by requesting permission to record and transcribe the interviews. The interviewees have indicated when specific information should not be published.

3.9 Limitations
Naturally, every data collection method has its limitations. Using semi-structured interviews will help provide in-depth sight and understanding of the acceptance of mobile banking in an organizational context. However, the collected data can be affected by the researcher through a lack of standardization, as every interview is somewhat unique and arguably every researcher would retrieve somewhat different information from interviews (Easterby-Smith, Thorpe & Jackson, 2013; Silverman 2007). Both the interviewer and interviewee are in this case capable of altering the reliability of the results. Furthermore, interviews are very resource-intensive in terms of required time and effort to both conduct, transcribe and analyse, leading to a lower sample size and difficulty with the generalizability of the findings (Saunders, Lewis, & Thornhill, 2012). For this reason, a future quantitative study could be recommended.
Considering the scope of the research, although the main topic is concerned with small to medium-sized companies in Sweden, the majority of the interviews will be with companies in the area of Jönköping for convenience and due to time restrictions.
4. Empirical Findings

This chapter presents the empirical findings from the conducted in-depth and semi-structured interviews. The results are summarized and divided within six categories based upon literature reviewed: perceived ease of use, perceived usefulness, perceived credibility, perceived risk, diffusion of technology and social influence. Additionally, findings related to service improvement are mentioned.

Description of the organizations interviewed:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Industry</th>
<th>Current usage of mobile banking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dream of Sweden</td>
<td>Fast moving consumer goods</td>
<td>Once in a while</td>
</tr>
<tr>
<td>Organization 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.AB</td>
<td>Development and manufacturing</td>
<td>Mobile banking is the only type of banking used</td>
</tr>
<tr>
<td>Organization 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SB International</td>
<td>Manufacturer amusement rides</td>
<td>Only for invoices with QR code</td>
</tr>
<tr>
<td>Organization 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sterling</td>
<td>Digital platform</td>
<td>Used for small transactions</td>
</tr>
<tr>
<td>Organization 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nordic Adventours</td>
<td>Travel / Tourism</td>
<td>Rarely used, mainly internet banking</td>
</tr>
<tr>
<td>Organization 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My Theresa</td>
<td>Luxury Fashion</td>
<td>Internet banking is frequently used, mobile banking only used in exceptions</td>
</tr>
<tr>
<td>Organization 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puori</td>
<td>Health supplements</td>
<td>Mobile banking used more often than internet banking</td>
</tr>
<tr>
<td>Organization 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lof Organization 8</td>
<td>Accounting</td>
<td>For smaller transactions</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Transcord Organization 9</td>
<td>Transport</td>
<td>Only for personal use</td>
</tr>
<tr>
<td>Coloreel Organization 10</td>
<td>Textile</td>
<td>Always used</td>
</tr>
<tr>
<td>Starbright Organization 11</td>
<td>Consulting</td>
<td>Increase in use since the last two years</td>
</tr>
<tr>
<td>Påverka Nu Organization 12</td>
<td>Recruitment</td>
<td>Frequent usage</td>
</tr>
</tbody>
</table>

**Table 4 - Description organizations interviewed**

### 4.1 Perceived usefulness

Overall eight of the twelve organizations that were interviewed mutually agreed on the aspect that mobile banking enhances their everyday job performance or could enhance their job performance if they started using it. However, these are not necessarily large improvements that have a big impact on the day to day tasks in the office. An example of this was stated by organization 10:

*Enhance is maybe a big word, but it can make some basic financials easier to check.*

Furthermore, the majority of the organizations’ representatives agreed that mobile banking saves time by allowing the companies to conduct out financial tasks outside of the office, which also allowed the workload to be carried out more efficiently. Mobile banking gives them the freedom to carry out financial services wherever they are and is especially useful in situations where the employees are travelling for work and do not have access to computers and their office. However, saving time through mobile banking depends on the type of financial tasks the organization is involved with. Organization 3 stated that mobile banking indeed saves them time by making the work go faster and more efficient, but only when they are dealing with invoices with a QR code that can be scanned by their mobile banking application. When they
are dealing with these types of invoices, mobile banking enhances their job performance, but when the invoices do not have the QR code they use internet banking (online banking) since it is easier to work with.

Alternatively, there were also organizations that believed that mobile banking does not enhance their job performance, which can be attributed to several reasons. Organization 1 stated:

_I cannot say that mobile banking makes a huge difference in the enhancement of my everyday job performance. It is nice to sometimes have the financial information available quickly, but I cannot say that without mobile banking my job would be more difficult._

Whereas organization 6 stated:

_Mobile banking does not necessarily enhance our job performance, because we do not use it that often for it to make a big impact. We usually only use it to pay out the monthly salaries._

These statements indicate that mobile banking must be used for more advanced tasks to actually enhance the job performance of organizations and make a difference in their day to day tasks. On the subject of how perceived usefulness of mobile banking could be improved to better fit the financial service needs of the organizations a variety of answers were given. Three organizations all brought up that they would like to have future integration of mobile banking with their business systems. Organization 1 explained:

_I think an improvement would be the future integration of mobile banking applications with our business systems possibly. The problem we have right now with mobile banking is not the application themselves, but the workflow and how we conduct business and integration with our business system would make it a bit easier._

This reasoning was also brought up by organization 3 as they explained that the lack of integration between their mobile banking application and their business system is what makes them prefer to conduct the majority of their financial transactions through computers or laptop. A future integration with the company's business systems would make mobile banking become the easier choice and therefore preferred choice for conducting financial transactions, because there would be no need for additional papers or invoices anymore due to the integration.
Moreover, it was noted that this integration with the company's' business systems would remove the human error factor that arises from typing information in manually when conducting financial transactions.

According to organization 4 and 5 an improvement of the verification and login method of mobile banking would enhance the job performances in their organizations even more than it currently does. Regarding this organization 4 stated:

*Well for the bank service I use, I would say fingerprint or face/eye recognition instead of using passwords to access your account and the services, to increase user interface. This keeps the mobile baking process pretty basic and in turn makes the transaction process easy. This would allow me to manage my business better and save time.*

Whereas organization 5 said the following about possible improvements of mobile banking to enhance their job performance:

*Change of the verification method, sometimes when I am conducting transactions you have to open another window for verification. Often I get distracted by that step which results in me not finishing the transaction. Also, adding services that allow for more complex and advanced transactions would also be an improvement point. And the possibility of a full overview of account history.*

Some organizations like organization 2 are satisfied with their current system of mobile banking and do not think that improvements to the system are necessary. Organization 2 mentioned that the application developers and banks are already working continuously on updating the technological system, which leads to a high satisfaction regarding the quality of the mobile banking system application and its usefulness. Therefore no improvements are necessary.

Finally, as a point of improvement expanding the mobile banking applications by adding a variety of new financial services was mentioned the most. Several different ideas of what these new financial services could be were described during the interviews by the organizations. Organization 7 stated that the digitalization of non-scannable invoices would be a great addition to the mobile banking applications, whereas organization 10 mentioned a service to reclaim business expenses. Organization 8 explains that more tools could be added to help businesses. For example, if the mobile banking application could make customized financial company reports. This can turn mobile banking from a tool that may be used more for simple actions
such as checking up on accounts and payments to an interactive tool if these reports could be made.

4.2 Perceived ease of use

Each one of the twelve organizations interviewed shared the opinion that the actual technological system of mobile banking is easy to use because it is easy to access and does not require any additional guide or explanations to use the system. This positively influences their willingness to use mobile banking, leading to less use of banking on a computer and more often to banking through a mobile phone.

Organization 1 made a clear distinction between the ease of use of the actual system of mobile banking and the entire process of mobile banking. As explained by organization 1, the applications themselves are very easy to use. The problem they identified is that when they are using mobile banking their workflow is not as easy, efficient and hassle-free compared to online banking. Consequently, they are more likely to use online banking when additional documents or information are required, because their business systems are integrated with the banking system on their computer making it easier to access those documents, which makes it is easier for them to carry out financial tasks. Example given by organization 1:

*For example I can just as fast make a payment with the mobile application as on my laptop or computer, but what makes it more difficult is that I probably need some kind of invoice or something that I need to pull up next to the banking app and that makes it more inconvenient because I need to switch between apps, try to get the required information from an invoice from my phone.*

Furthermore, it was mentioned by six organizations (1, 3, 4, 7, 11 and 12) that depending on what type of financial transaction needs to be done, the user still needs to switch between apps or systems, which was not in line with the level of ease of use from the rest of the mobile app. This brought forward the need for mobile banking to further integrate with different systems. As expressed by three organizations:

*I would use mobile banking more often if they have an integrated way to handle things like tax declarations, efficient currency exchange and perhaps merge with cryptocurrency - (Organization 5)*
My mobile banking app requires me to login somewhere else first, before I can make a transaction, this makes it not very fast and user-friendly compared to other platforms like Swish and PayPal - (Organization 4)

Just a further expansion of the possibilities, if more and more services and functions will be included ultimately everything can be done through mobile devices - (Organization 12)

Organization 2 explained that mobile banking is easy and therefore convenient to use for them, less papers are needed to conduct transactions and compared to internet banking, mobile banking requires less waiting time for confirmation of payments. When one of the employees of organization 2 used to work at a different company, all financial related tasks were carried out through online banking from a computer. This led to more paperwork and longer waiting times for payment confirmations. Compared to mobile banking, this process took too long and wasted too much time. Organization 11 frequently prefers to use mobile banking over internet banking, because they perceive mobile banking as:

Very accessible which gives a feeling of control, since it is easy to log in and make a payment.

Mobile banking was especially more preferred when dealing with finances on a daily basis since the saving of time will be more significant due to frequent usage. Organization 10 describes that mobile banking is easy to access and use, because the screens are very basic and clear making it easy to understand by users. It simplifies the banking process for them and is the main reason why they choose to use mobile banking:

Mobile banking is supposed to simplify banking so if it is not easy to use I would not continue to use it myself.

Contrary to organization 10, organization 5 sees the screen aspect as one of the disadvantages of mobile banking. They stated that the small screen size of the mobile phone is what makes mobile banking not as easy and efficient to use compared to online banking. Therefore mobile banking is only preferred to use when the financial tasks are simple. In that case mobile banking is much more convenient for them compared to online banking.
4.3 Perceived credibility

The following three factors have been identified as the underlying components for perceived credibility and as such are interrelated, but they show three different aspects of essentially the same issue(s) regarding the perceived credibility of mobile banking.

4.3.1 Security

The responses of the representatives regarding the perceived credibility varied widely. One of the main reasons for organization 6’s preference to use online banking instead of mobile banking, was their concerns regarding privacy and security of the mobile banking applications. Organization 6 explained that if one of the employees that uses mobile banking for company related tasks would lose their phone, they are worried what would happen to the personal financial data. Also, they believed that it is easier to hack into a banking system on a mobile phone compared to a banking system on the computer. Due to this, they believed that it is better to separate certain services since it is too dangerous to have all your valuable personal information on a mobile phone according to them. People could access their sensitive data and potentially use it against them. However, since the technology of mobile banking is becoming more advanced and safe it is expected that in the future they will be more likely to use mobile banking more often for payments.

Likewise, organization 2 and organization 3 have some concerns regarding the security such as breach of passwords and login data. This however does not affect their willingness to use mobile banking, because so far they have never experienced anything bad with the security of their mobile banking app. The representatives explained that factors that could help with the security of banking on the mobile phone would be the possibility of offering double sign in steps to ensure that the right person is logging in. However, this could also become inconvenient because it could take longer to log in and the main benefit of mobile banking for them is that it saves time.

Alternatively, organization 1 expressed complete trust in their bank regarding security and breaches. Some concerns they do have are not related to the applications or banks themselves, but have to do with the internet connection and location. They would not use mobile banking if it was connected to a public Wi-Fi. Furthermore, they would not access the mobile banking app if they were in a public setting. Organization 4 also explained that they are careful in which
setting they open their mobile banking app. They stated:

A concern regarding security is how and where I use the app. For example I would not use it on a large screen or in a restaurant where everyone can see it.

Consequently, their security concerns are more linked to the external surrounding factors like the internet connection and location instead of the system itself.

Finally, organization 5 explained that any concerns regarding security they have are linked to the number of employees that have access to the login data of the mobile banking app and how many of them are handling the companies’ finance related business. Currently, only one employee in the company is responsible for the financial tasks, which decreases their security concerns.

4.3.2 Privacy

One of the reasons organization 7 had no concerns regarding the perceived credibility of mobile banking, is partly due to the Swedish ID system used to log into the mobile banking app. They concluded that not only a well-developed login system plays a role in trusting the security and privacy of mobile banking, but also the reputation of the provider of the mobile banking service is of importance. Regarding privacy, the representative considered that nothing done online is private.

Organization 1 explained that they do have some concerns regarding the privacy when using mobile banking. They would not access the mobile banking app if they were in a public setting (e.g. in the bus) for fear that others would steal their login data and therefore breaching their privacy. Furthermore, if their mobile phone was connected to a public Wi-Fi setting the mobile banking app would not be used for fear of being hacked and stealing the companies’ financial data.

Organization 10 stated that they are concerned about the lack or potential breach of privacy when using mobile banking. They explained that they are worried about the bank having access to their personal data and possibly misusing it. Consequently, this leads to their preference to hand out as little amount of personal information as possible to protect their privacy. Regarding the influence this has on their usage of mobile banking they explained:
If the bank requires what I think would be too much personal information I may not use their mobile banking service.

Finally, organization 8 stated that whenever they are involved in online activity, they always have concerns regarding privacy because a certain amount of data that should be kept safe is left behind on the internet. This could potentially lead to their bank account being hacked, which is something you hear quite often when using technologies like mobile banking they explained.

4.3.3 Trust
Organization 7 expressed complete trust in the mobile banking system provided by their bank SEB. As stated:

*The Swedish ID system is very well developed so we have no concerns regarding the security of the system. Regarding privacy, people need to accept that everything that happens online is known by someone else, there is no such thing as privacy there.*

What can be noticed here is that not only an expression of trust in the bank plays a role in trust, but also the login system of the country they are based in.

Similarly, organization 11 stated to fully trust mobile banking because it is provided by SEB bank. The representative claimed to have complete trust in the bank because of the security system and their safety record. This trust encourages their usage of mobile banking, because of the complete trust in the bank and that their privacy is kept safe, which makes them use mobile banking more frequently. Furthermore, organization 4 explained that if the mobile banking service was offered by a bank that is big and well-known they would have no concerns regarding the credibility of mobile banking, because they trust the bank’s information system. The reputation of the bank is what influences their trust in the mobile banking system.

On the contrary, organization 8 expressed that their trust in mobile banking is affected by hearing stories on the news about other companies being hacked due to the use of a technology similar to mobile banking. It does not really change their acceptance in terms of usage of the app because there is no real alternative for them, but when they hear about these stories it does influence the trust they have in the system because it shows them that mobile banking may not be as safe as they thought.
4.4 Perceived risk

This part will present the different findings related to perceived risk, classified under the 6 categories namely: performance, financial, time, psychological, social and privacy risk. The company representatives did not mention all the forms of perceived risk during the interviews as some were not applicable or relevant to them. Therefore the chapters are divided between discussed perceived risks and perceived risks that were not relevant to the representatives.

4.4.1 Perceived risks

Mobile banking raised the most concerns around privacy risk where the interviewees expressed among others about a potential loss of private information. Especially the privacy of private information of clients, what happens to the information that is provided to the bank and how secure this is stored, as organization 10 stated:

*This would make me even not use mobile banking if a bank requires what I believe too much private information.*

Concerns about privacy relate to the security of the bank ID system and how easily data could be accessed if anything happens to mobile device as mentioned by organization 3 and 6. Nonetheless, most interviewees agreed that they felt they could fully trust the bank and their privacy and security system. A main argument that was used related to the bank’s reputation of not having any problems concerning security or privacy breaches as explained by organization 1,2,4,5,7,8,9,11 and 12. One representative noted that, despite having trust in the bank, that privacy is just a fad. Organization 7 stated:

*Everything that is done online is traced and known by someone somewhere.*

Also, despite fully trusting the bank’s system and reputation, a recent breakdown at another large financial institution made one representative realise that no system is 100% safe from failures. As stated by organization 11:
After reading about the recent breakdown at NAVTEQ, especially when I read about the underlying causes, I realised that if even such a large corporation can have a failure, no company can be 100% safe and secure.

Alternatively, none of the representatives mentioned any risk related cost or purchase price of mobile banking. This may likely be due to the service being free or at a very low cost which does not offer any potential risk of financial loss. However, the fear of potential financial damage due to fraud was mentioned by organization 6:

*Since mobile banking is done through my phone, if I was to lose this or it would get stolen, my financials may be in danger.*

On a similar note organization 4 stated that:

*Banking through your mobile phone can be very appealing to hackers, so it is important to check where you are logging into your account and whether your account is accessible through a password or fingerprint.*

Indicating a perceived financial risk related to the usage of the mobile banking application.

**4.4.2 Unperceived risks**

Not all forms of perceived risks were mentioned during the interviews, some were in fact dismissed. Firstly, none of the interviews mentioned anything related to a (potential) loss of time or money when using or trying to learn how to use mobile banking. Alternatively, all agreed that it was easy to understand and use.

*It is easy, accurate, and efficient to use, it enhances my work performance because I have less waiting time for confirmation – (Organization 2)*

*Very easy to access and use, which helps to save a lot of time the more you use it - (Organization 11)*

Secondly, during the interviews all the representatives noted that the service functions according to their expectations, the initial design and purpose, which involves allowing banking
to be done through mobile devices. For example, organization 2 stated:

*We only use mobile banking within the company, it is great to have this possibility, and it looks easy fast and good.*

Similarly, organization 8 stated:

*The current function and design are easy to use and navigate through, so it helps simplify payments and provide a better financial overview.*

Finally, the organizations did not mention any concerns related to social risk. Instead, some were of the opinion that they were using mobile banking more due to their social environment. This is discussed under social influence.

### 4.5 Diffusion of innovation

Since the conducted interviews were with organizations that are already implementing the service of mobile banking, tension for change is presumed to not be applicable as the companies are already past the point of adoption. Instead, the relative advantage that was mentioned concerning the usage of mobile banking will be discussed, together with the compatibility and observability.

#### 4.5.1 Relative advantage

All interviewees mentioned that mobile banking offers relative advantages over online banking. Aspects such as accessibility, convenience, ease of use where among the most frequently used terms to describe the benefits of mobile banking. More and more financial transactions are actually getting easier to do through mobile banking, instead of online banking behind a computer as noted by organization 2, 3, 7, 8 and 11.

*When I’m able to scan QR codes and process them through my mobile banking app, I work a lot more accurate and save a lot of time - (Organization 3)*

*I find it easier to pay bills through my mobile phone through something like an OCR scan, as it is both faster and more accurate - (Organization 11)*
Also, the fact that I can access, check and work on the finances of my business anywhere, gives me a sense of personal freedom and allows me to work whenever it suits me - (Organization 7 & 11)

4.5.2 Compatibility with existing values and practices

All participants agreed that the world and business is becoming more mobile and that banking will not stay behind. Mobile banking in this case supports this need of people wanting to keep up with the trend of being able to have access to their information anywhere at any time.

In the last 10 years there were already so many developments, with the world and business becoming more advanced and mobile banking and financial industry will need to develop as well - (Organization 11)

4.5.3 Observable results

Different observable results from the usage of mobile banking were mentioned. A common one was that it helps save time as noted by organization 3, 5, 7 and 11. Next were noticeable differences related to more accurately conducted payments together with saving resources like paper. As was stated by the organizations:

Mobile banking provides me with a better overview, which helps both save time but also avoid making mistakes - (Organization 8)

I notice mobile banking to be an easier and faster way to pay bills and perhaps even more important, I find it more accurate - (Organization 11)

I see many benefits to the technology, saving paper is one of the benefits I like the most - (Organization 2)

It helps eliminate the human errors, especially when scanning QR codes - (Organization 3)
4.6 Social influence

Social influence involves situations where the organizations noted that they believed that others within their social group believed they should use mobile banking. This was mentioned during two interviews.

Organization 4 noted that friends and family had a positive impact on the usage of mobile banking. Also, organization 6 mentioned that customers, especially younger ones, may expect to be able to use mobile banking. Same goes for employees, or competitors.

4.7 Service improvement

This part focuses on what the organizations thought could be improved about mobile banking. The representatives were asked about mobile banking as an innovation and what they would expect and hope to see in the future. This brought forward that there is a clear need in the future for a better integration of different systems to allow for more different financial transaction to happen through the mobile application. Examples of this that were mentioned include:

*It would be great to have an integration of all systems, which could for example automate converting currencies optimally, integrate tax payments etc. - (Organization 7)*

*I really hope to see more integrated functions for aspects such as taxes and payroll functions - (Organization 11)*

Additionally, some representatives mentioned thoughts on further improvements for user friendliness and payment verification.

Organization 7 commented that a further improvement in user friendliness would be important, and organization 5 hopes to see further developments in payment verification system.

Most companies clearly stated that they believe that mobile banking will further grow to be more important and that it can take over many tasks from online banking once the technology and service is ready for it.
5. Analysis

In this chapter, the factors that have been derived from the theoretical background will be compared with the findings from the empirical research.

5.1 Perceived usefulness

Perceived usefulness is defined as; “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis 1989, p 320). The representatives were asked to assess the usefulness mobile banking adds to their job performance and which factors or characteristics influence the acceptance of mobile banking. Based on the findings derived from the interviews and discussed in chapter four, several factors that influence the perceived usefulness are identified and will be described and discussed how they relate to this study.

5.1.1 Workflow

Throughout the interviews, one of the main reasons mentioned by the organizations to use mobile banking instead of online banking is related to the organization’s workflow. A few of the representatives mentioned that what affects their perceived ease of use of mobile banking is not related to the actual technological system of mobile banking. They have no problem with the application, but with how the process of mobile banking influences their workflow. Throughout some of the interviews it was explained that when the mobile banking app is not integrated with their business system, the main problem for them is that for certain transactions on the mobile phone, additional documents or information are required, which made mobile banking less easy to use. During these instances, respondents preferred to use online banking because it created a smoother workflow compared to mobile banking, thus enhancing their work performance. This is in alignment with previous literature stating there is a positive correlation between perceived usefulness and the adoption of mobile banking in the work environment (Pikkarainen, Pikkarainen, Karjaluoto & Pahnila, 2004). Thus, the higher the perceived usefulness, the higher usage of mobile banking increasing the acceptance of the system.

Oftentimes an invoice is required which needs to be opened next to the mobile banking app, but if the invoice is only accessible through another app it forces organizations to switch between apps to get the required information regarding the invoice. Resulting in making the mobile banking process longer, inconvenient and more difficult, thus influencing the perceived
ease of use and trading in mobile banking for online banking. This is in agreement with what Chong, Ooi & Lin (2010) concluded, essentially the user needs to get something useful out of the system in return to use it more frequently. Since the need for additional steps is often required, organizations prefer to use online banking in the case of invoices because they get more usefulness out of that system compared to the mobile banking system. Therefore, the organizations suggested that an integration of mobile banking with their business systems would increase the ease of use of mobile banking.

However, one of the representatives (organization 2) explained that mobile banking actually enhances their workflow because less papers and additional documents are required compared to online banking to conduct financial tasks. This reduced need for additional information is partly why they view mobile banking as highly useful and will continue to use it in the present and future. This indicates that the differences also lay in which mobile banking application organizations use, some will require additional information whereas others will not, as mentioned by organization 2.

Organization 2’s statement of continuing to use mobile banking in the future due to the usefulness they get out of it is explained by Davis, Bagozzi and Warshaw (1989). According to their study, it was confirmed that PU acts as a predictor of the behavioural intention of consumers to accept or reject the technology. This means that PU is the predictor of intention to use information technology, explaining organization 2’s intention to continue to use mobile banking.

5.2 Perceived ease of use

The perceived ease of use describes “the degree to which the prospective adopter expects the technology adopted to be a free effort regarding its transfer and utilization” (Davis 1989, p 320). PEOU is an important dimension of technology acceptance, because it influences the current and future intention to use a technology system and is therefore also a predictor of future user intention (Chiu & Wang, 2008). This means that related to this thesis, PEOU will predict the extent to which organizations would use mobile banking in the future. Based on the findings derived from the interviews and presented in chapter four, the factors efficiency and facilitating conditions were discussed during the interviews and identified to influence the perceived ease of use, and will therefore be discussed in more detail below.
5.2.1 Efficiency

Throughout the interviews, one of the main reasons mentioned by the organizations to use mobile banking instead of online banking is related to its efficiency. According to Chong, Ooi & Lin (2010), when mobile banking is perceived as easy to use due to the efficiency of the system experienced by users, the chances of willingness and intention to use the system increase greatly. It was frequently mentioned that one of the reasons for choosing to adopt mobile banking within the company is the degree of easiness of the possibility of accessing the mobile banking app and conducting financial tasks on the go. This makes banking more efficient and convenient since it can be done anywhere (e.g. In the bus, in a store etc.), at any given time.

It was explained that when they would use internet banking for conducting financial tasks related to the company, it must be done through the computer or laptop in the office, which limits the time frame. This explains their preference of using mobile banking in certain situations that would result in increased efficiency, and is in alignment with previous literature stating users are more likely to adopt a technology if the technological system is easy to use (Hatammimi & Arahita, 2015).

More specifically, meaning that efficiency and convenience have a positive influence on the perceived ease of use of mobile banking. Furthermore, a number of representatives mentioned that as long as mobile banking is more efficient than online banking, they will continue to use it in the future. This reasoning can be attributed to previous literature explaining that the PEOU influences not only the current but also the future usage intention to use a technology system (Chiu & Wang, 2008).

Moreover, the speed of mobile banking was also mentioned as one of the benefits of using the technology system. All you need to do is get your mobile phone out and open the mobile banking application to conduct any financial task. The speed is part of the degree of ease of use since it makes the technological system of mobile banking easy to use and free of effort. They believe that the actual technological system of mobile banking is easy to use because it is relatively easy to access and does not require any additional guidance or explanations to use the system. Consequently, mobile banking is perceived as easy to use due to this influence of speed on the application.

This is in agreement with previous literature that concluded if the system of mobile banking is relatively easy to use, users will be encouraged to adopt the system, learn how to use it and eventually continue to use it in the future (Hamid, Razak, Bakar & Abdullah, 2016).
On the contrary, where some of the respondents viewed the possibility of conducting banking on a mobile phone as a plus, some of the respondents explained that they would choose to conduct banking on their computer or laptop instead of their mobile phone due to the small screen. The small screen makes the banking process not easy for them to use considering the lack of a clear outline of transactions and the requirement of additional banking steps when conducting international transactions on the mobile phone. The majority of these respondents mentioned that mobile banking is only used by them for small national transactions because in that case the usage of mobile banking is perceived as easier compared to internet banking despite the small screen. Therefore, respondents are more inclined to adopt mobile banking in situations where the usage of it is perceived as easy.

This is in alignment with previous literature stating that consumers had a tendency to adopt mobile banking mainly because they thought the utilization of it was easy (Guriting & Ndubisi, 2006). Larger transactions require a better overview which is something mobile banking lacks. On that occasion mobile banking offers them a lower degree of ease of use compared to online banking, leading to online banking being used more frequently. This is due to the fact that the perception of the ease of use of a technology impacts and influences the behaviour of users and therefore also their actions, thus leading to a lower rate of usage of mobile banking in the case of large transactions (Hatammimi & Arahita, 2015).

**5.2.2 Facilitating conditions**

During the interviews it was stated by the organizations that one of the main reasons to use mobile banking instead of online banking is related to the facilitating conditions. During the interviews it was identified that the factor of facilitating conditions has an influence on the usage of mobile banking. Facilitating conditions refers to the users’ perception of the resources and support available to execute a certain behaviour (Brown & Venkatesh 2005; Venkatesh, Morris, Davis & Davis, 2003). Previous literature states that performance expectancy, effort expectancy, and social influence are expected to influence the behavioural intention to adopt a certain technology, while behavioural intention and facilitating conditions determine technology use (Venkatesh, Morris, Davis & Davis, 2003).

In this study, the execution of a certain behaviour is the acceptance of mobile banking by organizations. Essentially this means the organizations’ perception of the support available simplifying the use of mobile banking.
Overall the majority of the organizations mentioned that the offering of services related to facilitating conditions influences their perception of the ease of use of mobile banking. One of the representatives mentioned that according to them mobile banking would be perceived as easier to use if banks or mobile banking providers would offer online support services with the focus on online. This would save organizations time, because all you need to do is login to the mobile banking app and leave your contact details behind in the customer service support section. This avoids you wasting time on the phone waiting, because the bank contacts you themselves very quickly and can guide you with any problems you are facing making it easier for organizations to use the mobile banking system. Essentially, what can be concluded from this is that facilitating conditions positively influences the perceived ease of use of mobile banking by organizations, leading to an increase of usage and the acceptance of mobile banking by organizations. This is confirmed by previous literature, stating facilitating conditions as objective factors making an act easy to do (Thompson, Higgins & Howell, 1991).

Furthermore, seven out of the twelve organizations stated that mobile banking would be perceived as easy to use if banks or the application providers would offer training and guiding to employees in organizations that are adopting a new mobile banking system. This would increase the perceived ease of use of mobile banking by organizations, because mobile banking would be perceived as easy to use, efficient and hassle free by the employees because they are trained on how to use the system. This will make the banking process on a mobile phone much easier and free of effort for them, because the intention to use the system and willingness is positively influenced (Chong, Ooi, & Lin, 2010).

Finally, one of the representatives explained that mobile banking is not as easy to use for their company, because all the employees within the company are from different countries and are used to different banks and systems (e.g. IBAN numbers), which makes it harder to use only one due to the confusion. It would be easier for them to use mobile banking if the banks/app providers developed one type of mobile banking system that can be used globally. This could potentially lead to continuous future use of mobile banking, because PEOU not only influences the current usage of mobile banking but also the future usage (Hamid, Razak, Bakar & Abdullah, 2016).
5.3 Perceived credibility

The perceived credibility researches the concerns organizations have regarding the security and privacy of mobile banking (Wang, 2003). The representatives were asked to assess the credibility of mobile banking and which factors and/or characteristics influence the acceptance of mobile banking.

5.3.1 Security

When discussing the perceived credibility of mobile banking during the interviews, security was one of the factors that was brought up often that had an influence on the credibility of mobile banking perceived by the organizations. Breach of the system of mobile banking and hacking into the system were mentioned most frequently as a concern regarding privacy by organizations. The majority of the representatives explained that their concerns are related to others hacking into their mobile banking system and stealing the private financial data of the organization either to use it against them or for another dangerous purpose. How this influences their acceptance of mobile banking however varies widely among the organizations.

Organization 6 for example is not willing to accept mobile banking because of their concern regarding security. They believe that their personal data is better protected when using internet banking compared to mobile banking and that it is too dangerous to have valuable information on your mobile phone because you can lose it or it can be stolen. According to them hacking into a mobile phone is a lot easier than into a company computer or laptop. They are worried about being specifically targeted by hackers because of their large cash flow and how the people accessing sensitive company data could affect them negatively. This influences their acceptance of mobile banking by preferring to use online banking, which is in line with what previous research revealed about how users’ sense of security diminishes because the mobile phone can easily be lost or stolen and with it their personal financial data that is stored on the mobile phone (Shaw, 2014).

If banks and app providers would share with them what happens to their data and how security is ensured and provided, they would be more willing to accept the mobile banking system by using it more often. On the contrary, although a few other representatives had some concerns regarding the security of mobile banking, they did not let this fully influence their acceptance of mobile banking. One of these security concerns that was frequently mentioned is related to the internet connection. Numerous organizations explained that they would not use their mobile banking app if they were connected to a public Wi-Fi. The risk of getting hacked or having the
financial data of the organizations stolen is too high for them and is not something they are willing to risk. Thus, this affects the perceived credibility of mobile banking in a way that companies are only willing to accept mobile banking under the condition they could use their own internet connection.

Previous literature stated that user’s main concern when conducting mobile payments is related to security (Dahlberg, Mallat, Ondrus & Zmijewska, 2008; Hartono, Holsapple, Kim, Na & Simpson, 2014). Contrary to this claim, the majority of the respondents stated that the security does not affect them strongly enough to influence their acceptance of mobile banking, because it is too useful for them and as long as there is a lack for an alternative they will continue to use it until they personally have a bad experience regarding the security.

5.3.2 Privacy

Part of the perceived credibility is any concerns consumers might have regarding the privacy of a technological system. The empirical findings discussed in chapter 4 revealed that the factor trust heavily influences the privacy of mobile banking. The interviews exposed that the majority of the organizations did not have any real concerns regarding privacy when using mobile banking. The majority of the representatives claimed to have complete trust in the banks and application providers and therefore not really consider privacy as a concern that influences their perceived credibility of mobile banking.

The few respondents that claimed to be concerned about the possible lack of privacy due to the use of mobile banking, explained that despite this concern they will continue to use it anyway because they believe that mobile banking is a technological innovation that cannot be avoided and will only continue to grow in the future. The benefits of mobile banking outweigh costs, thus their usage of mobile banking will not be negatively affected by privacy concerns since privacy is not influencing their perception of credibility of mobile banking. This is contrary to some of the stated literature that found that privacy concerns represent a negative impact on adopting mobile banking (Kim, Shin & Lee, 2009).

5.3.3 Trust

Regarding perceived credibility, the factor of trust came up during every interview. Trust in general can be described as the extent to which a person is willing to trust others (Kini & Choobineh, 1998; Wang, 2003). A definition of trust more accurate to this study is to which extent a customer or organization perceives the trust of a technological system and their
perception of its trustworthiness (Dahlberg, Mallat, & Öörni, 2003).

Trust describes how organizations perceive the trust of mobile banking and whether they think the system is trustworthy or not (Dahlberg, Mallat, & Öörni, 2003). The higher the trust in a technological system is, the more positively credibility is perceived which in turn increases the acceptance of the technological system (Kacmar, Choudhury, & D, 2002). The majority of the organizations have a high level of trust in mobile banking mainly due to the banks that provide it, while previous literature has noted that trust was one of the most frequently mentioned concerns from consumers about mobile banking (Kim, Shin & Lee, 2009). They list previous experience and feedback from others as reasons for their trust in the banks. In alignment with previous theory, the representatives state that this trust in the banks positively influences their perception of the credibility of mobile banking leading to an increase in their willingness to use mobile banking. They have a more accepting attitude towards mobile banking and feel safe using it. So essentially the reputation of the bank and mobile banking application plays a role in the acceptance of mobile banking. This is also apparent in previous literature where trust was presented as something that enables consumers to believe that mobile service providers have enough ability to provide a useful and trustworthy service (Tao Zhou, 2014).

Moreover, these high levels of trust are not only related to the banks or mobile app providers. Organization 7 stated that they perceive mobile banking as highly trustworthy not only because of the trust they have in their bank SEB, but also due to the trust in the Swedish ID system used to login to the mobile banking applications in Sweden. This is interesting because the Swedish ID system is a technological system that is independent from mobile banking. This explains that the acceptance of mobile banking is not only depend on the actual system itself and the providers, but can also be influenced by other information systems like in this instance a well-developed mobile banking login system of a specific country.

Finally, despite the expressed high levels of trust, one organization mentioned (quote in section 4.4.6) that a recent breakdown at another large financial institution made them realise that no system is 100% safe from failures, which decreased their level of trust in mobile banking.

This phenomenon is also described in previous literature by Lee (2005), where it was noted that when users of mobile transactions are exposed to problems concerning the service connection there is an effect on the level of trust. Finally, the future growth in the use of mobile banking services is influenced by the confidence and trust users have in the service (Weber & Darbellay, 2010). This is in alignment with the majority of the responses of the organizations stating their complete trust in the banks as a reason for accepting and using mobile banking.
5.4 Perceived risk

5.4.1 Perceived Risk

In addition to the previously discussed privacy risk (section 5.3.2), the interviews brought forward a financial concern. This was not related to a perceived risk of money on the purchase or maintenance price required for mobile banking. However, the increased risk of hacking through mobile devices and losing money was mentioned by organization 4 as well as the potential danger of fraud by organization 6. This is in line with previous findings that stated that users of mobile banking still have concerns about the safety of their data (Kim, Shin & Lee, 2009; Toufaily, Elissar, Souiden, Nizar, Ladhari, Riadh, 2013) and that there can be concerns about the transactional data being shared with inappropriate parties (Chellappapp and Pavlou, 2002).

The perceived risks that were mentioned were related to have an effect on the usage or frequency of usage of mobile banking. More specifically, in the case of the perceived risks about fraud or hacking the representatives explained that due to these perceived risks they will not just use mobile banking via any network like a public Wi-Fi. Consequently, it will be of importance for banks and other financial institutions to clearly communicate the safety measurements in place around payments and personal data to minimize the perceived financial risk and take away a potential barrier to adopt mobile banking and further increase the usage among companies that already adopted the technology.

5.4.2 Unperceived risks

Firstly, no interviews indicated concerns around a (perceived) loss of time. Instead, many indicated that mobile banking resulted in time saving. Secondly, all the interviews suggested that the mobile banking service works as expected and according to its purpose, indicating no signs of performance risk as defined by Grewal, Gotlieb & Marmorstein (1994). This can be partly attributed to the previously discussed perceived ease of use, more specifically section 5.3.2 Efficiency, where it is explained that the respondents noted that the efficiency of mobile banking is in fact one of the main reasons to use it over online banking. Mobile banking allowed the respondents to easily access their financial information and conduct transactions on the go. Similarly, the speed specifically was mentioned as one of the advantages of mobile banking over online banking. Since the application allows users to just take out their mobile phone and open the service to manage their finances. The speed of this procedure compared to the required
actions and location restrictions of online banking add to the time saving from using mobile banking.

Finally, social risk related to the potential loss of status within a social setting when using a product or service. None of the interviewees mentioned any concerns related to social risk. Instead, some were of the opinion that they were using mobile banking more due to their social environment. This is discussed under social influence (section 5.6).

5.5 Diffusion of technology

The diffusion of technology is a theory to explain what makes an innovation spread (Rogers, 2003). In the case of mobile banking, the interviews brought forward various insights related to the different components to better explain what made the organizations adopt mobile banking.

5.5.1 Relative advantage

All organizations indicated advantages of mobile banking over online banking, with aspects such as accessibility, convenience, ease of use being among the most frequently used benefits. Which is in line with previously stated literature on mobile banking in a consumer context (Zhou, Lu, & Wang, 2010). The relative advantages were observed after the adoption of mobile banking within the organizations. Most advantages were mentioned to directly affect the frequency of usage of mobile banking for the future.

5.5.2 Compatibility with existing values and practices

This factor relates to the extent to which the technology is consistent with needs, values and past experiences of potential users. As brought forward by most of the interviews, there is an increased need to be able to work more mobile. Mobile banking facilitates with this need, by allowing businesses to work on their finances from any location. This is also a known benefit stated from a consumer’s perspective (Wessels & Drennan, 2010). This confirms that mobile banking facilitates with the need to be able to work remotely at any preferred location in both a consumer and organizational context.

Moreover, the value offering of mobile banking has been previously described as providing anytime, anywhere access to banking services (Lee and Chung, 2009), together with the growing demand for mobility of services and products (Tiwari, Buse & Herstatt, 2007). This confirms the perceived benefit of mobile banking matching the need for more accessibility and freedom to work wherever and whenever in a mobile world, as stated in the interviews. Simultaneously, it can be noted from the interviews that since there is an increasing need for
people to be able to work on their finances at any given time or location that there is a greater chance to adopt mobile banking, to accommodate with this. Meaning that mobile banking shows to be compatible with the current and future needs and values of in this case Swedish organizations, which has a positive influence on their intention to adopt the technology.

5.5.3 Observable results
This factor relates to the extent to which users notice visible results from the usage of a technology. During the interviews different noticeable results were mentioned, from resource savings related to time and paper but also more accurate work through the elimination of human errors and automating payments. These visible and noticeable results made it to more likely for the companies to use mobile banking. This is consistent with what has been stated in the theory (Rogers 2003). This indicates that when organizational users of mobile banking experience and notice positive observable results as a consequence of the usage of mobile banking they are more likely to continue to adopt and further use mobile banking. Potentially, this could be utilized by the mobile banking service provider as ground to market and communicate positive observable results from the usage of mobile banking to further stimulate the adoption of mobile banking. Nonetheless, observable results can only take place after the initial adoption of mobile banking and therefore cannot have an effect on the intention to adopt. Instead, the interviews showed that observable results can have a positive influence on the future frequency of usage in the case that positive observable results are present.

5.6 Social influence
Social influence relates to the extent to which the organizations perceived that others within a certain social group believe they should use a technology. Since this is a proven influencing factor within a consumer context (Venkatesh, Morris, Davis, & Davis, 2003), it was included as part of the interview to verify the applicability in an organizational context. Hence, two interviews expressed that they believed that they were expected to use mobile banking from others within their social group. Organization 4 mentioned that friends and family positively impacted the usage of mobile banking. Whereas organization 6 noted that customers and employees, especially younger ones, may expect to be able to use mobile banking. More specifically, both cases seem to relate mostly to the sub factor related to “Image”, where the usage of a technology is perceived to enhance the image or status in a social group (Moore and Benbasat, 1991).
In these instances the organizations express how others within their social system (friends & family, customers & employees) positively influence their intention to use mobile banking. To conclude, the external influence from social groups had some positive effect on the adoption of mobile banking within two of the organizations. This is similar to what has been previously found in technology acceptance in a consumer context, and shows the effect of social groups on technology adoption. Nonetheless, with only 2 out of 12 organizations mentioning social influence as a factor influencing their acceptance of mobile banking, due to the low possibility of generalization it will not be considered to be a very substantial factor and therefore will not be included in the concluding model.

5.7 Service Improvement

The interviews acknowledged that mobile banking as a service could have a lot of potential and that it is very likely to further grow and expand in quality and functionality. Nonetheless, the service is still developing and for the future the organizations hoped to see more improvements and possibilities for the mobile banking application. Most frequently mentioned was the need for a better function and integration of different business systems to allow for more different financial transactions. The company representatives explained that when more functions like tax or payroll would be integrated in the mobile banking application, there would be increasingly less need for online banking.

This is similar to what has been found and forecasted in previous research in a consumer setting, where Weber & Darbellay (2010) stated that the growth of mobile banking would depend on the advances in the technology. Similarly, Suoranta & Mattila (2004) said that mobile devices will start to replace traditional banking branches. Moreover, mobile banking is considered as one of the most promising and important developments within the banking business (Linn, 2011) and to evolve much faster than non-mobile online banking (Laukkanen, 2007). Finally, interviewees noted that when the service would further improve they would be even more likely to adopt and use mobile banking more frequently. This indicates that similar to mobile banking in a consumer context, the adoption of mobile banking is also dependent on future advances of the technology. The interviews with the organizations specifically expressed the need for further integration with different business systems to enable users to handle different financial transactions.
6. Discussion

This chapter provides a discussion that goes beyond the scope of this research. In addition, the limitations as well as the future research opportunities will be addressed.

Through the implementation of semi-structured, in-depth interviews, the different company representatives were able and allowed to bring up every valuable point they considered to be important and related to the acceptance of mobile banking in organizations. This flexibility eventually led to multiple additional insights which were not discussed extensively as they were not directly linked to the main research objective. Nonetheless, the authors consider these insights as both beneficial and interesting to the reader and therefore discussed them in more detail below.

A first insight the authors developed during the research, is the importance of the factor trust in relation to technology acceptance more specifically acceptance of mobile banking. It was discussed in each interview when talking about the perceived credibility. The future growth in the use of mobile banking services is influenced by the confidence and trust users have in the service (Weber & Darbellay, 2010). This is in alignment with the majority responses of the interviewees stating their complete trust in the banks as a reason for accepting and using mobile banking. The majority of the respondents have a high level of trust in mobile banking mainly due to the banks that provide it. They list previous experience and feedback from others as reasons for their trust in the banks. The trust in the banks positively influences their perception of the credibility of mobile banking leading to an increase in their willingness to use mobile banking. They have a more accepting attitude towards mobile banking and feel safe using it. Essentially, the reputation of the bank and mobile banking application plays a role in the acceptance of mobile banking. Consequently, this means that the factor trust positively influences the dimension perceived credibility, which in turn positively influences the acceptance of mobile banking.

Furthermore, the authors want to emphasize the importance of a better integration of different systems within mobile banking for future developments. As mentioned by several companies during the interviews, there is a clear desire that more financial tasks would be done through mobile banking if this would be possible through an integrated feature. If banks and other financial institutions would be able to include this in their system it could be very beneficial for the further adoption of mobile banking.
6.1 Limitations

Four limitations were identified. The first limitation is related to the purpose of this research. The purpose was to explore the influencing factors on the adoption of mobile banking in organizations. This was a complex task with most previous studies and literature focused on mobile banking from a consumer perspective. Therefore, the depth and relevance of each factor can be questioned.

The second limitation is that by focusing on the factors derived from the literature background, the authors may have limited their research on mobile banking adoption in organizations during the interviews. It is possible that there are other factors of importance that have not been considered. Despite that many similar factors were mentioned during the interviews, strengthening the outcome of this research, there is always the chance that when more interviews had been conducted, new insights and findings could have come up.

Thirdly, the authors gained more familiarity on the topic of mobile banking adoption during the course of the different interviews, therefore it could be noted that not all interviews may have had the same level of depth and quality.

Finally the authors trust that the interviewees have an adequate level of knowledge and understanding on the topic of mobile banking within their organization, however, the outcome of this research should not be considered conclusive. Nonetheless, it provides an overview related to the influencing factors on mobile banking adopting in organizations that can be used as a starting point for further research.
6.2 Future research

Five directions for future research were identified. First, based on the limitations discussed above, it should be noted that some of the perspectives and factors have not been examined thoroughly enough. Consequently, future research could be conducted to create more insight. Moreover, this research collected qualitative data leading to subsequent considerations for future research.

Second, one consideration for further research can be a detailed quantitative study on mobile banking acceptance in organizations by testing out the model developed by the authors. With a larger sample the potential effect of demographics within Sweden on the acceptance of mobile banking can also be invested, as this has not been addressed previously.

Third, future research could even be extended to include other countries operating in similar conditions to see if comparable results are achieved. This can investigate the possible effect of cultural differences on the acceptance of mobile banking within organizations.

Furthermore, for future research one could compare the results regarding the acceptance of mobile banking of two or more countries and research the impact the cultural differences have on technology acceptance. A future study measuring the cultural dimensions could research whether there is a link between level of technology acceptance and cultural dimensions.

Besides the already mentioned opportunities, the authors also derived more possible starting points for future research during the data collection. As mentioned before in the discussion, the impact of trust seemed to be of major influence to eventually the acceptance of mobile banking. This could be a valuable research topic that can be either investigated in more detail, or tested through a larger quantitative study, within Sweden or between different countries.

Finally, this study focused on organization that are using mobile banking and their reasons for adopting and using the technology. Future research can also look into organizations that are purposely not using mobile banking and investigate the underlying reasons behind this.
7. Conclusion

The objective of this thesis was to explore the different factors that are determining the acceptance of mobile banking in organizations. The main research question was defined as:

*What are determining factors for acceptance of mobile banking by organizations?*

The conceptual development derived from the literature review has been evaluated and examined for their applicability to the adoption of mobile banking in an organizational context. This has been accomplished by means of the outcome of the empirical research conducted. The outcome confirmed most of the factors previously stated in the literature background. Most of the factors include several underlying components that have been identified after the conducted interviews. Based on these findings, the study offers a conceptualized model that demonstrates the influencing factors on the acceptance of mobile banking in organizations. This answers the overall research question of this study (see figure 2).

![Diagram showing factors affecting mobile banking acceptance by organizations](attachment:image)

**Figure 2** - Factors affecting mobile banking acceptance by organizations (Developed by authors)
7.1 Implications

From a business perspective, this study provides banks and financial institutions with a better insight into the motivations behind the acceptance of mobile banking in organizations. The findings can provide guidance for directions where mobile banking can be improved to allow for a better adoption rate. While different factors were identified and linked to affect the acceptance of mobile banking, one particular aspect that should be considered relates to trust. In the case of the Swedish organizations, there was a clear sense of trust in the banks that offered the service. Nonetheless, more clarity and (security measures) related to data privacy can be considered to help obtain the trust from potential adopters and increase mobile banking acceptance among organizations. Moreover, several of the findings also relate to factors that would promote the frequency of usage for mobile banking. This can also be used by banks or financial institutions that offer mobile banking to assist to build a better service to for customers and consequently increase the conducted transactions through their mobile banking applications. One important aspect that should be considered and was noted repeatedly by the organizations is the further integration of different business systems to allow for more types of financial transactions.

From an academic perspective, since this research focused on mobile banking acceptance from an organizational perspective, it contributed to the available literature by exploring a relatively new domain since most of the current literature concentrated on the private consumer’s perspective.

Furthermore, as was implied throughout this research, the literature and empirical data on the thesis subject have contributed to this study by resulting in a conceptualized model (see figure 2) detailing which factors influence the mobile acceptance by organizations. The further theoretical contribution of this study is the development of a conceptualized model that can be used to predict and explain organizations’ intention to use mobile banking and therefore accepting the technology.
Appendices

Appendix 1 Interview Guide

Prior to interview:

✓ Inform interviewees about the research topic, background and the purpose of the interviews.
✓ Ensure a common understanding about frequently used terms in the research and presumably the interview.
✓ Select an appropriate location that offers comfort and convenience for the interviewee as well as peace and quietness so that the interview won’t be disturbed.
✓ Try to dress appropriately to the style of the interviewee.

Introduction

❏ Start with brief introduction to interviewee on the topic and research
❏ Ask for permission to record interview
❏ Start with general questions on the company’s activities
❏ Ask about current usage of mobile banking within the company
❏ Which mobile banking services does the company use for their financial transactions?
❏ Which mobile banking services do you personally use?

In-depth questions

❏ What is your opinion on mobile banking
  ❏ Are you using mobile banking personally

❏ Perceived ease of use
  ❏ - How do you perceive the ease of use of mobile banking? (Do you think that mobile banking is easy to use, hassle free/efficient, is it too difficult/complicated etc.?)
  ❏ Does this impact your willingness to use mobile banking
  ❏ Are there any (internal / external) factors influencing the perceived ease of use of mobile banking, if yes could you elaborate on the factors?

❏ Perceived usefulness
  ❏ - Do you believe that using mobile banking enhances your job performance? If so how? (Does it save you time, enhances control over your work, addresses job related needs,
increases productivity, improves quality of work, makes you more efficient on the work floor etc.)

- What could be done to improve the perceived usefulness of mobile banking?
- Do you think there is anything that can be or should be improved regarding the system of mobile banking? If yes, what? If no, why not?
- Are there any (internal/external) factors influencing the perceived usefulness of mobile banking? If yes could you elaborate on the factors?

Perceived credibility:

- Do you have any concerns regarding privacy due to the use of mobile banking?
- What factors do you have to consider regarding internal privacy and using mobile banking?
- Does this influence your acceptance of mobile banking?
- Do you have any concerns regarding security due to the use of mobile banking?
- What factors do you have to consider regarding security and using mobile banking?
- Does this influence your acceptance of mobile banking and trust in the system?
- Are there any (internal/external) factors influencing the perceived credibility of mobile banking? If yes could you elaborate on the factors?

General questions:

- Do you see benefits to the technology
- Do you see limitations to the technology
- What would you/the company expect from the usage of mobile banking
- Do you have any expectation regarding the performance of mobile banking?
- What are considered factors when deciding upon the adoption of a new technology within the company (e.g. cloud services, mobile banking, cryptocurrency)
- What would positively/negatively impact your intention to use mobile banking
- Do you have any further thoughts/insights you find important to share with on this topic

Possible probing questions that can be used

Detailed-oriented
→ When did that happen, who was involved

Elaboration

→ Could you tell me more about that, Why did that happen

Clarification

→ What was meant with that, what do you mean with “word”

Echo Probe

→ Repeat the last answer and ask the respondent to continue
References


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