Exploring the Consumer Adoption of Alternative E-payment Methods

A study of the Swedish market
Bachelor Thesis in Business Administration

Title: Exploring the consumer adoption of alternative e-payment methods: A study of the Swedish market.

Authors: Lundh, Maxim & Svensson, Alexander.

Tutor: Rudrajeet Pal

Date: 2018-05-21

Key terms: e-payment, technology adoption, e-commerce, TAM, mobile payment, online payment.

Abstract

Purpose: The purpose of this thesis is to identify the factors of adoption within alternative e-payments methods, and gain a deeper understanding of the reasons to why these factors affect the consumer’s adoption. This will be conducted through empirical research, as well as looking into previous theory in order to propose a research framework that is appropriately adapted to the specific phenomenon of alternative e-payments.

Problem: The substantial growth of e-commerce, and the limitations within conventional card payment has paved way for the development of new and innovative alternative e-payment methods. Past research point towards that, there are gaps in literature, where there is a lack of qualitative studies within the field. Furthermore, Sweden is one of the nations with the highest level of innovativeness, as well as e-commerce usage making it an appropriate market to analyze.

Method and Methodology: By applying an intepretevism paradigm, this research views knowledge from a subjective viewpoint. The primary data is collected through a qualitative approach, using one-to-one semi structured interviews, in order to obtain deeper a response. The gathered data is later on analyzed and compared with the previous research within the field.

Findings: The findings of this thesis identifies the factors of adoption within alternative e-payments and why they have an affect. Certain factors seemed to be of greater importance than others, and many of the factors held similarities showing their interdependent nature. Furthermore, new factors were identified as well as the factors being highly context specific, identifying gaps that should be addressed in future research.
Acknowledgements

We would like to express our appreciation to the people who have guided us throughout this process, and helped us reach our goals with the research paper.

To begin with, we would like to thank our tutor, Rudrajeet Pal, for not only being our supervisor, but also taking the time to support us through thick and thin. We would not have been able to accomplish these results, without his academic guidance. Then we would also like to express a special thank you to those who partook in the interviews, which was fundamental for us to gain deeper knowledge within the phenomena. Thank you for your participation and engagement.

Lastly, we would like to express our gratitude towards Anders Melander, for providing the foundation in order for us to write this paper.

______________________________  ______________________________
Alexander Svensson              Maxim Lundh
Jönköping, 2018-05-21            Jönköping, 2018- 05-21
# Table of Contents

1. **INTRODUCTION** .................................................................................................................1  
   1.1 BACKGROUND ......................................................................................................................1  
   1.2 PROBLEM DISCUSSION ..........................................................................................................2  
   1.3 PURPOSE ...............................................................................................................................3  
   1.4 RESEARCH QUESTIONS .........................................................................................................3  
   1.5 DELIMITATIONS ....................................................................................................................4  
   1.6 ALTERNATIVE E-PAYMENT LANDSCAPE ............................................................................5  

2. **FRAME OF REFERENCE** ........................................................................................................6  
   2.1 LITERATURE REVIEW ...........................................................................................................6  
      2.1.1 E-payment methods .........................................................................................................6  
      2.1.2 Factors of e-payment adoption .........................................................................................7  
      2.1.3 Network Externalities .......................................................................................................7  
      2.1.4 Cost ................................................................................................................................8  
      2.1.5 Trust ................................................................................................................................8  
      2.1.6 PU, PEOU & Compatibility ............................................................................................9  
      2.1.7 Applied Lens ...................................................................................................................11  
   2.2 THEORETICAL FRAMEWORK ..............................................................................................12  
      2.2.1 Technology Acceptance Model (TAM) ..........................................................................12  
      2.2.2 Diffusion of Innovations Theory (DIT) ........................................................................13  
      2.2.3 Proposed Research Framework ....................................................................................14  

3. **METHODOLOGY** ..................................................................................................................17  
   3.1 RESEARCH PHILOSOPHY ......................................................................................................17  
   3.2 RESEARCH APPROACH ........................................................................................................18  
   3.3 RESEARCH PURPOSE ..........................................................................................................19  
   3.4 RESEARCH STRATEGY ..........................................................................................................19  
   3.5 SAMPLING ............................................................................................................................20  
   3.6 EMPIRICAL DATA COLLECTION – SEMI-STRUCTURED INTERVIEWS ...................................21  
   3.7 INTERVIEW PROCESS .........................................................................................................23  
   3.8 SECONDARY DATA ..............................................................................................................24  
   3.9 ANALYSIS OF DATA ............................................................................................................25  
   3.10 TRUSTWORTHINESS OF RESEARCH ................................................................................26  

4. **EMPIRICAL FINDINGS** .........................................................................................................28  
   4.1 PERCEIVED USEFULNESS ....................................................................................................28  
   4.2 PERCEIVED EASE OF USE .................................................................................................29  
   4.3 COMPATIBILITY ...................................................................................................................30  
   4.4 COST ..................................................................................................................................31  
   4.5 NETWORK EXTERNALITIES .................................................................................................32  
   4.6 TRUST ..................................................................................................................................33  

5. **ANALYSIS** ............................................................................................................................34  
   5.1 PERCEIVED USEFULNESS ....................................................................................................34  
   5.2 PERCEIVED EASE OF USE .................................................................................................34  
   5.3 COMPATIBILITY ...................................................................................................................35  
   5.4 COST ..................................................................................................................................36  
   5.5 NETWORK EXTERNALITIES .................................................................................................37  
   5.6 TRUST ..................................................................................................................................38  

6. **CONCLUSION** ......................................................................................................................41  

7. **DISCUSSION** .........................................................................................................................43  
   7.1 THEORETICAL IMPLICATIONS ............................................................................................43  
   7.2 PRACTICAL IMPLICATIONS ..................................................................................................43  
   7.3 LIMITATIONS ......................................................................................................................44  
   7.4 FUTURE RESEARCH ............................................................................................................44  

8. **REFERENCE LIST** ................................................................................................................46
Figures
Figure 1  Technology Acceptance Model.................................................................13
Figure 2  Proposed research framework............................................................16

Tables
Table 1  Summary of Interview Participants......................................................23
Table 2  Revised research framework...............................................................40

Appendix
Appendix 1  Interview questions.......................................................................54
Terminology

**E-commerce:** Defined by Laudon & Traver (2018, p7) as "the use of the Internet, the Web and apps to transact business"

**E-payment:** Kaur & Pathak (2015) describe e-payments as payments made in an e-commerce environment in the form of money exchange through electronic means.

**Conventional E-payment:** Refers to the usage of traditional credit or debit card payment when conducting a transaction online (Laudon & Traver, 2018).

**Alternative E-payment:** Refers to the usage of other online payment methods than the traditional ones, in this thesis often relating to invoicing, mobile solutions and stored value (Laudon & Traver, 2018).

**Innovation:** Transferring a novel idea into a product or service that ultimately creates value for the end user (Rogers, 2003).

**Payment Service Provider:** The third parties who provide merchants with an electronic platform in order to facilitate a transaction (Ecommerce Platforms, 2018). In this case, Klarna, Swish and Paypal.

**Mobile Payment:** In this research, mobile payment will be defined as: any transaction on a mobile device where the ownership of money is transferred (Pope, Pantages, Enachescu, Dinshaw, Joshlin, Stone, Austria & Seal, 2011)

**Bank-ID:** BankID is the leading electronic authentication service in Sweden. BankID has been developed by a number of large banks for use by members of the public, authorities and companies (Bankid.com, 2018).

**Abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAM</td>
<td>Technology Acceptance Model</td>
</tr>
<tr>
<td>DIT</td>
<td>Diffusion of Innovations Theory</td>
</tr>
<tr>
<td>E-Payment</td>
<td>Electronic Payment</td>
</tr>
<tr>
<td>E-Commerce</td>
<td>Electronic Commerce</td>
</tr>
<tr>
<td>PU</td>
<td>Perceived Usefulness</td>
</tr>
<tr>
<td>PEOU</td>
<td>Perceived Ease of Use</td>
</tr>
</tbody>
</table>
1. Introduction

This section will present the background behind the exponential growth of e-commerce, and the shift towards alternative e-payment methods. It introduces the problem, purpose and research questions of this thesis, as well as delimitating important aspects. Additionally, a brief explanation of the current alternative e-payment landscape is introduced.

1.1 Background

In today’s market, monetary transactions are moving from a traditional physical exchange, into electronic payments that are conducted online. E-commerce, defined by Laudon & Traver, (2018, p.7) as “the use of the Internet, the web and apps to transact business”, is becoming increasingly prevalent. In Sweden alone, e-commerce accounts for 8.7% of the countries entire retailing revenue, increased from the 3% that it represented during 2007. During the recent decade, e-commerce has exponentially seen annual growth and estimate projections assume that 2018 will hold an increase of 15% (E-Barometern Årsrapport, 2017).

The US is an example of a market which is in a period of high growth in relation to the number of payments being conducted online but lacks in adopting alternative payment methods. The dominant choice in a US online setting is still through card transactions, whilst other markets such as those in Scandinavia are choosing to adopt the newer alternatives (Laudon & Traver, 2018). Sweden is one of the few markets where alternative e-payment methods are superior to card transactions, with invoice payments accounting for 37% of all online payments and all alternative e-payment solutions representing the majority. This is further exemplified in the same survey, where 48% of consumers deemed it important to have the alternative of choosing invoice payments, whilst 33% voted for the importance of mobile payments (E-handel i Norden, 2017). According to ForexBonuses.org (2017), around 59% of all transactions made in Sweden are conducted in an online setting, thus leading to Sweden being the second most proficient country in the category of cashless transactions (ForexBonuses.org, 2017). This is partially explained by E-Handel i Norden (2017) to be the result of a knowledgeable population and a solid infrastructure, giving a handful of innovative payment providers a good foundation to be able to cater with new payments alternatives. New players within the Swedish e-payment market include Klarna, Swish and the established American giant, Paypal who have all succeeded in gaining market share from payment service providers such as Mastercard and Visa (E-handel i Norden, 2017). The surge in e-commerce usage further increases the relevance of
delving into the topic of e-payment adoption, as it is the bridge in the transaction process between the merchant and the consumer (Laudon & Traver, 2018). As formerly elaborated, Sweden appropriately fits into the mold of a society that is highly developed within e-commerce usage. Approximately 67% of the Swedish population partake in online consumption (E-Handel i Norden, 2017), and the market is saturated with a wealth of competitive payment service providers.

1.2 Problem Discussion

As discussed earlier, the substantial growth of e-commerce has been largely dependent on the development of electronic payment methods (Slozko & Pello, 2015; Özkan, Bindusara & Hackney, 2010). During recent years, the means chosen to conduct a transaction online has shifted. The traditional option of card payment has been challenged by innovative online, mobile and invoicing solutions, also defined as alternative e-payment methods (Laudon & Traver, 2018), conducted by third-party payment providers (See-to & Ho, 2016). It is mentioned in past research that due to the ever-changing industry dynamics within e-payments, it is a topic that needs continued research (Liu, Kauffman, & Ma, 2015). A literature review on e-payment adoption conducted by Kabir, Saidin & Ahmi (2015), further discussed that nearly the absolute majority of all e-payment studies are empirically conducted through quantitative studies and that future research would benefit from applying a different lens in order to fill the evident research gap, especially when attempting to understand consumer acceptance.

The shift towards opting for less conventional methods can partially be explained by the advancement of the necessary facilitating conditions such as IT infrastructure but is also an indicator of changing consumer values and individual factors to why certain payment alternatives are being adopted. It should be noted that, regardless of how innovative a technology is and how much value it is meant to create, it holds little use unless it convinces the consumer to adopt (Oye, Lahad, Rahim & Zairah, 2012). Heng (2004) states that even though there has been an introduction of innovative methods, the majority of novel e-payments are still rejected by consumers failing to gain acceptance. The value of a payment system is explained by Arvidsson (2013), as the confidence gained in the transactional relationship between the service provider and user, which ultimately dictates the level of trust inserted into a certain method. Alternative e-payments within Sweden are becoming the preferred online payment method by consumers, but it cannot be avoided that traditional card payments are still
widely used (E-handel i Norden, 2017). Therefore, investigating the reasons to why consumers choose alternative e-payment methods is important in order for merchants and payment providers to understand the reasoning behind the demand side of the market. Without this knowledge, businesses may find it difficult to offer an optimal solution to users which may progressively have an impact on the development of e-commerce. As stated in previous research, the adoption of e-payment technology is largely affected by cultural differences, making it relevant to narrow down the focus to the Swedish market given the relevance of cashless payments in the region, and the population’s level of innovativeness (Ferreira, Rocha & Silva, 2014).

1.3 Purpose
This research aims at contributing to the developing science of consumer technology adoption within the setting of alternative e-payment methods. There is a lack of research conducted within the field of alternative e-payment method adoption, as the majority of current studies point toward topics such as the adoption of conventional e-payments, mobile and/or online banking. It should be noted that this study will incorporate research from these other similar contexts of technology adoption where the knowledge can be transferred. This, together with the fact that the few current studies available, approaches the topic from a quantitative lens, leaves a gap for a qualitative approach in order to shed new light on the topic. Therefore, the purpose of the study is to gain knowledge and understand what factors affect the adoption of alternative e-payments methods in a Swedish context. Not only identifying the factors but also understanding the reason to why alternative e-payments are adopted by consumers, through empirical research. In order to bridge the gap between merchants and users, and contribute to existing science, this thesis will propose a suggested research framework where the most dominant frameworks and theories within technology adoption will be utilized in order to identify the factors. The chosen frameworks and theories will be adapted and modified towards the specific research topic of this thesis.

1.4 Research Questions
- What factors affect the consumer’s adoption of alternative e-payment methods in Sweden?
- Why do these factors affect the consumer’s adoption of alternative e-payments?
1.5 Delimitations

The given topic of alternative e-payment methods could be viewed from a technological perspective, although in this study, a technological perspective will be excluded due to time constraints, as well as the limited knowledge of the authors within the context. Instead, it will focus on the factors that drive adoption of alternative e-payments concentrating on a consumer behavioral perspective. In recent years, different e-payment service providers have been developing novel solutions, not only for B2C markets but C2C and B2B as well. The research will, however, focus on the exchange of goods between a merchant and a consumer within an e-commerce environment and therefore limits itself to B2C transactions. As exemplified by Nemat (2011), the climate within the various markets differs, as well as the reasoning behind the intention of use, which makes narrowing down the research to consumer behavior within B2C a valid choice. This is also the following reason to why the empirical research will solely be targeted at interviewing the end consumers within B2C e-commerce, opposed to using the merchant’s feedback as a source of information.

Regarding the choice of theory, there is a wide spectrum of technology adoption frameworks that have been utilized in previous research, and this paper will only include those deemed most relevant for the topic of alternative e-payment adoption. Venkatesh, Morris, Davis & David (2003) wanted to develop a unified view of technology adoption and therefore founded the theory: Unified Theory of Acceptance and Use of Technology (UTAUT). It incorporates aspects from all of the eight strongest theoretical models within the topic of technology acceptance and behavioral economics. However, as explained by Bagozzi (2007), even though UTAUT is a thoroughly thought through model, its magnitude, as well as interdependency between variables, makes it overwhelming. Therefore, due to it being non-specific and its complexity, the UTAUT will not be applied, partly also due to the time and resource constraints of the researchers. There are also aspects of the Diffusion of Innovations theory that will not be incorporated. Rogers (2003) proposed a model within the DIT theory which shows how the individual user moves through the process of adopting a technology. However, this paper’s purpose is not to measure the process of adopting alternative e-payment methods as well as not identifying a certain adopter categories propensity to adopt. The research will therefore instead only utilize the innovation characteristics from the DIT theory.
1.6 Alternative E-Payment Landscape

There are a considerable amount of actors in the Swedish alternative e-payment market, but market research has identified Swish, Klarna, and Paypal to be those that are most frequently used. Consumers in a statistical survey showed that the number of users that had interacted with the method were respectively 66%, 61% and 32% (Sverige Betalar, 2016).

**Klarna:** Founded in 2005 and specializes in services such as invoice and partial payments where consumers can evaluate the good without having to pay upfront (Klarna, 2018).

**Swish:** The result of a collaboration between Sweden’s six largest bank offering mobile payment solutions, both between C2C as well as B2C. Founded in 2012, it was not until 2016 that Swish became optimized for e-commerce usage (Swish, 2018).

**Paypal:** Klarna and Swish are local players in the Swedish market but Paypal is one of the most established International online payment solutions. It offers users the possibility to transact without revealing sensitive information (Paypal, 2018) as well as different payment alternatives such as money transfer or stored value (Laudon & Traver, 2018).

When examining the alternative e-payment methods in this thesis, they will be treated as a single category opposed to the conventional method of card payment. Therefore, when answering both research questions, Swish, Klarna, and Paypal are defined as the alternative methods
2. Frame of reference

The section provides a literature review of e-payment methods, e-payment adoption as well as the factors of adoption. Thereafter the most prominent theoretical frameworks within technology adoption are introduced, in order to present a proposed research framework.

2.1 Literature Review

2.1.1 E-payment methods

The topic of e-payment methods is as current now as ever, and the landscape is evolving at a quick rate. Simultaneously, there is a natural limit to the rate of consumer adoption regarding technological products and of service acceptance (Lai, 2017). Due to the exponential growth of e-commerce, new ways of conducting online transactions have been introduced given the limitations of conventional e-payment methods, as well as catering to newer environments (Özkan, Bindusara & Hackney, 2010). C2C markets are being explored together with mobile platforms calling for more modern and innovative alternatives. The limitations associated with card transactions from a consumer perspective often refer to security issues such as authentication as well as the consumer not being content with the security risk of handing out personal payment information (Laudon & Traver, 2018). Previous literature touches upon that privacy-related matters such as consumer information misuse within an online setting may repel the user from adopting a new method, regardless of how convenient or beneficial it may be (Lwin, Stanaland & Miyazaki, 2008). Other prominent drivers include time-saving opportunities as well as exploiting the limitations in user-friendliness that traditional banking services lack in applying (Abrazhevich, 2004). This has opened up a gap for payment service providers to offer newer payment methods in order to satisfy consumers’ needs within an online environment. These payment methods include invoicing, partial payments, mobile payments and other innovative money transfer alternatives (Laudon & Traver, 2018). Some of the benefits of adopting e-payment methods according to Leong, Leong, Ewing & Pitt (2003) is the possibility to complete a transaction without needing physical cash, as well as not having to dedicate time. If consumers cannot be convinced of why a new payment method should be adopted, engagement will be halted, ultimately causing the online seller a forfeit in potential income (Abrazhevich, 2004).
2.1.2 Factors of e-payment adoption

There is a lack of research specifically highlighting the underlying factors to why consumers choose to adopt alternative e-payment methods, which is noted as important for merchants to be able to further optimize the current technology (He & Mykytyn, 2008). Past research states that the use of current theoretical frameworks within mobile commerce needs to be complemented with additional variables (Wu & Wang, 2005).

Money exchange together with the lack of physical interaction introduces trust as an important factor when adopting e-payments (Özkan, et al., 2010). Pavlou (2003) also explains that factors that can complement the understanding of e-payment adoption, are the user’s attitude towards security, privacy and risk further highlighting trust a factor to be considered. Furthermore, Song, Parry & Kawakami (2009), showcase how the individuals’ intention to use a mobile payment service is largely dictated by the total amount of users using the specific service. This points towards the relevance of implementing network externalities with technology acceptance models given the relevance of social influence on consumer attitudes (López-Nicolás, Molina-Castillo & Bouwman, 2008). Perceived cost is also seen to have an impact on a mobile payment-services perceived value (Kleijnen, Wetzel & Ruyter, 2004). This is further supported by Luarn & Lin (2005) who explain that the perceived cost of a method has an impact on user adoption. Hence, a higher cost can be seen to have a negative effect on alternative e-payment adoption. Moreover, Abrazhevich (2004) highlights how these factors are vital in providing consumers with the confidence to adopt newer methods opposed to conventional. Researchers such as He & Mykytyn (2008), have discussed the relevance of TAM within the domain of e-payments, as well as the possibility to incorporate the model as well as applying its constructs of PU and PEOU with other theories and factors. Furthermore, Mallat’s (2007) study on the consumer adoption of mobile payments implied the validity of using the DIT and its variables, especially Compatibility in order to explore the reasoning behind the consumer side of the market. Based upon this, the following factors; Network externalities, Cost, Trust, PU, PEOU, and Compatibility will be individually elaborated upon in further depth before introducing the theoretical framework.

2.1.3 Network Externalities

Network externalities can be explained within technology adoption as the utility that an individual adopter gains from an increase in the number of adopters in the technological market. It can both refer to an increase of the user base as well as the number of merchants offering the
method (Qasim & Abu-Shanab, 2016). It is mentioned that the user’s decision to adopt mobile payment services is largely dictated by the number of merchants that offer the service and the size of the user base (Mallat, 2007). MacVaugh & Schiavone (2010) further explain that network externalities have an imperative effect on the diffusion of an innovation at an individual level.

It was also proposed in Qasim & Abu-Shanab’s (2016) research, that network effects within mobile payments were equally as important a factor to study as trust and social influence. Studies conducted on mobile payment adoption show a strong relationship between network effects and social influence, as the users’ close network of family or friends has a considerable impact on the individual’s intention to adopt. Therefore, the effect of network externalities and social influence can be used as a single combined factor covering both aspects (López-Nicolás et al., 2008).

2.1.4 Cost

In a study conducted by Wu & Wang (2005) cost is introduced as an external factor of concern for the user when adopting mobile payments. Especially those costs that are non-negligible. Cost refers to what it may cost the user to adopt a specific payment method, and a high cost may have a negative effect on adoption (Wu & Wang, 2005). In DIT research, cost has been treated as a part of the relative advantage variable, but research such as Mallat’s study (2007) points out the relevance of treating cost as a separate factor within the domain of mobile payment adoption. However, cost is also affected by the level of trust in a service, since the higher the perceived risk, the lengthier the transaction process becomes, increasing time and effort required which ultimately leads to higher transaction costs (Pavlou, 2003). This is further supported by Pikkarainen, Pikkarainen, Karjaluoto & Pahnila (2004), who explains how time-saving is equal to cost saving, and that is has been a key factor in the adoption of online banking.

2.1.5 Trust

With regards to the intangible nature of e-commerce, trust becomes an important factor to consider (Özkan et al., 2010). It is mentioned earlier how security has been a limitation of the adoption of card transactions, but Tsiakis & Stephanides (2005) highlight that novel e-payment methods undergo the same risk. Trust and security are considered to be one of the core prerequisites in order to conduct any form of monetary exchange (Tsiakis & Sthephanides, 2005; Chellappa & Pavlou, 2002) and is, therefore, an important factor of adoption within e-
payments (Özkan et al., 2010). Definitions of trust within a transactional environment can be broad and must be put into the correct context, but Chellappa & Pavlou (2002, p. 360) define consumer trust as the “subjective probability with which consumers believe that a particular transaction will occur in a manner consistent with their confident expectations”. Similarly aligning with Tsiakis & Stephanides (2005) explanation of consumer trust within e-commerce, as a function of the service providers meeting the user’s expectations. However, Mayer, Davis & Schoorman (1995) argue that trust can not only be a function of the users’ expectations but must also consider the payment platform service provider being able to fulfill its obligations, regardless of the users’ subjective reasoning.

Although many of the security-related factors within e-payments are dependent on technical variables, Kim, Tao, Shin & Kim (2010) explain in their study that these are often neglected by users, and instead base their trust and security perceptions on their interaction with the method. A sub-factor that can be of great importance is privacy and authentication, as consumers are often highly cautious of this matter. Users must be able to trust that the collected information will be used, stored or distributed correctly and safely, as well as well keeping the given information safe from fraudulent risks. One method practiced by payment service providers in order to gain trust is through offering security statements that clarify the usage of data collection, offer data protection and privacy as well as other content highlighting the safety of the service (Kim et al., 2010). A study conducted by Pavlou (2003) showed that the constructs of trust and risk could be used in order to predict the consumer’s acceptance of e-commerce and willingness to engage in online transactions. Perceived risk is introduced as being especially prominent as a factor within e-commerce due to the markets lack of physical interaction. Constructs of perceived risk that ultimately affects trust are introduced as economic risk, personal risk, seller performance risk and privacy risk, where each and every construct can negatively affect the user’s willingness to adopt. It is also argued that trust within technology adoption has a considerable influence on both the perceived usefulness and perceived ease of use of an innovation, indicating the compatibility of integrating trust with TAM (Pavlou, 2003).

2.1.6 PU, PEOU & Compatibility

Although TAM was first intended to be a predictor of information technology system usage in a professional work environment, researchers indicate that the measures can as well be applied to other settings and a various range of research questions (Schierz, Schilke & Wirtz, 2010). TAM, according to Lee, Kozar & Larsen (2003) and Marangunic & Granic (2015), is cited
within most research studying the area of user’s acceptance of technology, highlighting its credibility within the topic.

The theory tries to explain why a specific technology may be adopted, but may also fall short in certain aspects. Firstly, it is an old model that can questionably have been developed during a completely different landscape and secondly, it lacks to incorporate certain external or societal variables from the users’ point of view (Gillenson & Sherrall, 2002). Deeper analysis conducted by (Turner, Kitchenham, Brereton, Charters, & Budgen, 2010) highlighted that PU only predicted actual usage of a technology 75% of the time, and PEOU, 59%, meaning that the two variables are more effective when predicting the behavioral intention to use rather than the actual usage itself. Whilst, the BI measurement scores an impressive 90% accuracy when predicting the actual usage of the technology. This indicates the relevance of targeting the study towards understanding behavioral intention to use and its underlying factors (Turner et al., 2010) in order to gain deeper knowledge into why consumers intend to use alternative e-payment methods instead of only investigating how they perceive a technology. In a study conducted by Bagozzi (2007), it is discussed that even though TAM is a superior extension of Theory of Reasoned Action and Theory of Planned Behavior within the domain of technology acceptance, its parsimonious nature is a clear weakness as it expects to explain the decisions and behavior across such a broad subject through the lens of one single model. It is criticized that its simplicity creates certain limitations and that there is a lack of research into the “why” aspect of decision making as well as avoiding the social and cultural aspects of acceptance (Bagozzi, 2007). This is further supported by Lee, Kozar & Larsen, (2003) who explain that social influence is a crucial aspect within human behavior, and that future TAM research should focus on identifying the linkage between social influence and technology adoption. Özkan et al. (2010), explains that TAM alone is not sufficient in predicting user’s attitudes towards an e-payment method and the reasoning for this, is the environment that TAM was initially tested in. TAM’s origin was to predict the productivity of organizational workers, not considering that factors that may be included when introducing the variable of monetary exchange (Özkan et al., 2010). However, PEOU and PU are shown to be legitimate indicators of usage within e-payments and when used correctly, TAM can be a favorable model for determining the adoption factors of e-payment systems (Lai, 2017). Other factors identified by Ilie, Slyke, Green & Hao (2005), are relative advantage as well as perceived compatibility, indicating the possibility of adding the DIT theory into a TAM based framework. The characteristics of an innovation, complexity, relative advantage and compatibility were already explained to have the most
consistent relationship towards the TAM variables, even before the DIT theory was introduced (Tomatzky & Klein, 1982). It is therefore argued that for TAM to strengthen its relevance within mobile-commerce, additional theories must be added. It is justified that the DIT theory is similar to TAM in its constructs and when combining the two, an even stronger model can be proposed. This integration has been successfully conducted within several fields of research, especially within the topic of technology acceptance (Lee, Hsieh & Hsu, 2011; Cheung & Vogel, 2012).

The two main constructs of TAM, PU and PEOU have in previous research been shown to have similar characteristics to two of the five main constructs of DIT. It was illustrated that relative advantage resembled and could be used as an interchangeable term for PU, as well as complexity can function as a substitute for the factor, PEOU. Other variables such as compatibility, trialability, and observability are explained to be external variables which also have an effect on technology acceptance (Lee, Hsieh, Hsu, 2011). However, Agarwal & Prasad (1998) argue that compatibility is the only valid external variable from DIT in predicting adoption, and even though trialability together with observability explain the consumers’ decision-making process, the two characteristics are not shown to be accurate indicators of technology adoption. Previous research states that compatibility is a vital innovation characteristic that is not presented in TAM, due to the technology acceptance models lack of incorporating variables that are affected by social norms (Gillenson & Sherrell, 2002).

2.1.7 Applied Lens

Recent research explains that there have been limitations regarding the DIT, implying that it focuses on measuring the adoption of marketing activities opposed to only individual adoption of a technology (Rogers, 1995), but this can also depend on the domain of adoption. In Macvaugh & Schiavone’s (2010) critical analysis of the theory, it is explained that the adoption of innovation can be applied to three different domains; macro, meso, and micro. The findings from a study, largely depend on the point of view taken, as the understanding of technology acceptance may largely vary depending on which lens is applied.

- **Macro**: The domain of the industry/market.
- **Meso**: The domain of the community of users.
- **Micro**: The domain of the single user.
For this study, it is highly relevant to apply the lens of both the community of users, as well as the single user. Macvaugh & Schiavone (2010) highlight how individuals who adopt a technology often exchange information with more than one social community in order for their choices to be cohesive with what is socially acceptable.

2.2 Theoretical Framework

2.2.1 Technology Acceptance Model (TAM)

Introduced by Davis (1989), the Technology Acceptance Model (TAM) is still today one of, if not the most recognized theory within the phenomena of technology adoption. Built upon the behavioral economics theories, theory of reasoned action (TRA) and theory of planned behavior (TPB), the model is one of the first to convert behavioral factors into technology acceptance measures (Bagozzi, 2007. Schierz et al., 2010). The purpose of the model is to introduce improved determinants of computer usage behavior through two main variables, Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) which ultimately explain the users Behavioral Intention (BI) to use which then leads to actual system usage. The two main variables are defined as:

- **Perceived Usefulness:** “the degree to which a person believes that using a particular system would enhance his or her job performance.” (Davis, 1989, p. 320)
- **Perceived Ease of Use:** “the degree to which a person believes that using a particular system would be free of effort.” (Davis, 1989, p. 320)

Davis (1989) further describes how PU derives from the actual meaning of the word “useful” where a technology is said to have an advantage when being used. The same can be said for PEOU which originates from the word “ease”, meaning a reduced difficulty or input. Both the constructs PU and PEOU are explained to have a positive effect on adoption and if a technology is perceived to have a high PU and PEOU, it is more likely to accept by users than another (Davis, 1989).
2.2.2 Diffusion of Innovations Theory (DIT)

Another model that is widely applied to this phenomenon of research is the Diffusion of Innovations Theory (DIT). Created by Rogers (2003), the theory explains innovation acceptance and the process of innovation adoption. It introduces the sequential process of adopting an innovation and the characteristics of adoption. The model has been widely applied to IT and IS related research and is highly popular when trying to understand factors to why an individual adopts technology (Al-Jabri & Sohail, 2012).

Innovation Characteristics:

Relative Advantage:

"The degree to which an innovation is perceived as being better than the idea it supersedes" (Rogers, 2003, p. 213). The relative advantage of an innovation can either be measured in economic terms, introducing the variable of cost advantage as well as it can be measured by the impact on social status. In relation to e-payment methods, a relative advantage in cost could simply be a new alternative which offers a lower transaction cost than its predecessor, or a method which is deemed socially prestigious.

Compatibility:

"The degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters" (Rogers, 2003, p. 223). The values of a consumer can be strongly ingrained into sociocultural aspects, and innovations can struggle if they counter
the beliefs of the culture that is meant to adopt them. Compatibility is also largely impacted by the technology that precedes it. If the innovation deviates largely from what was previously established, it can be approached with negativism which refers to the degree to which an adopter rejects future innovations (Arensberg & Niehoff, 1964). The same negativity can also have an impact when an introduced innovation fails, making all future interpretations approached with skepticism (Rogers, 2003). However, the most relevant measure of compatibility of e-payment methods is how it is perceived to fulfilling the needs of the user.

Complexity:
“The degree to which an innovation is perceived as relatively difficult to understand and use” (Rogers, 2003, p. 230). The harder an innovation is to adopt, and the more knowledge it takes, often the slower the rate of diffusion becomes (Rogers, 2003). Complexity in a study done by He, Duan, Fu, & Li (2006) was shown to have a direct negative effect on adoption of technology.

Trialability:
“The degree to which an innovation may be experimented with on a limited basis” (Rogers, 2003, p. 231). The possibility to test a product before actual investment of usage can have a positive effect on adoption. It should be noted though, that later adopters are less prone to trialability, as the first mover acts as a form of vicarious trial (Rogers, 2003).

Observability:
“The degree to which the results of an innovation are viable to others, p. 231). Essentially the observability of an innovation is a measurement of how clearly it can be communicated or described towards others (Rogers, 2003).

2.2.3 Proposed Research Framework
Based on the introduced frameworks and models, there are reasons to believe that creating a revised version of TAM, can facilitate in achieving a stronger model for understanding why consumers adopt e-payment methods. The TAM has two main constructs in determining behavioral intention, but research has shown that it lacks in incorporating social and external factors, as well as it was not initially developed in a setting of e-commerce. The lack of understanding the consumer behavioral decision making when adopting a novel technology allows for the use of DIT to be incorporated as a complementary theory. The main reason to
why TAM will be used as the main framework of reference opposed to DIT, is because of its specific structure towards understanding technology adoption whilst DIT is more of a broad theory explaining why and how consumers adopt novel innovations. However, DIT introduces relevant variables that are not included in TAM but are argued to have an impact on adoption.

The main constructs of DIT are explained to be Relative advantage, Complexity, Compatibility, Trialability, and Observability. However, the former two are shown in research to not be compatible as external variables as they are process related opposed to being factors of adoption. It has been discussed that DIT is in its core, can be seen as a marketing related theory, which is why Relative advantage, Compatibility, and Complexity have carefully been chosen as innovation adoption factors that can be applied within the domain of e-payment adoption. In regards to Relative Advantage and Complexity, the two factors will be referred to as PU and PEOU during the rest of this thesis due to them being interchangeable in their definitions.

Furthermore, other external variables have been identified to have a direct or indirect influence on the constructs of TAM. Cost refers to the transaction cost that might incur when using an alternative e-payment, as well as the potential gain in time when applying an alternative e-payment method. Past research also identifies trust and as an important factor within any form of monetary transaction and has been widely applied to IT-related research as being an indicator of adoption. Due to the lack of physical interaction, Risk is also a variable to consider within the factor of Trust. The last factor that is integrated into the proposed research framework is Network Externalities, which highlights the influence of network effects within a two-sided market to gain a better understanding of social influences.
Figure 2 – Proposed research framework

PU
PEOU
Compatibility
Cost
Trust
Network Externalities

Behavioural Intention

Actual Usage
3. Methodology

This part of the thesis will present the research philosophy, research purpose, research approach and research strategy. It explains why the research views the topic from a qualitative lens, and how the data will be collected and analyzed. Additionally, it touches upon the trustworthiness of research.

3.1 Research Philosophy

The term “research philosophy” is according to Saunders, Lewis and Thornhill (2016), a system of beliefs and assumptions regarding the development of knowledge. When conducting research, it is essential to understand the assumptions drawn from the research. The assumptions affect how the research question is understood, the methods used and how to interpret the outcome of the research (Crotty, 1998). A well-developed understanding of the different assumptions will contribute towards a credible research philosophy which will be the foundation for establishing the method, research strategy, data collection technique and analysis procedure (Saunders et al., 2016). When conducting research within the field of business and management, there are three research philosophies that can be followed: ontology, epistemology and axiology. These philosophies, describe how the decisions are overviewed, how the research is conducted and how the researchers relate to the knowledge (Saunders et al., 2016).

The research aims at understanding what factors affect consumer’s adoption of alternative e-payment methods and why these factors affect the adoption. As previously highlighted, consumers in different parts of the world perceive the adoption of e-payments from different viewpoints, implying that the science of this topic is socially constructed and will, therefore, be seen from a subjective perspective of the ontology philosophy. Regarding the concerns about how the research perceives acceptable knowledge, the research is subjective to the consumers’ viewpoints. An interpretivism paradigm will be used throughout the study, which intends to create new, enriching understandings of the socially constructed realities (Saunders et al., 2016). By using this paradigm, the research will emphasize that people with different experiences will make different choices, to understand different viewpoints of the problem. The
research based on interpretivism has an emphasis on quality and depth of the data collection about the phenomenon concluding the use of qualitative research (Collis & Hussey, 2014).

3.2 Research Approach

There are mainly three different research approaches that can be applied; deductive, inductive and abductive. A deductive approach is constructed by developing a theory about a phenomenon and later testing the theory throughout a series of propositions/ hypothesis. This approach is the most dominant one when conducting research within natural science. On the other hand, an inductive approach enables the researchers to observe a targeted audience in order to understand patterns and themes concerning the phenomenon. The result of the data gathered is then concluded into a conceptual framework (Saunders et al., 2016).

The abductive approach begins with observing a surprising fact, which will then be used to create plausible theories to conclude the problem (Van Maanen, Sorensen & Mitchell, 2007). This approach shares similar characteristics to both inductive and deductive, but it should be noted that an abductive approach shall not be considered as a combination of the prior (Eriksson & Lindström, 1997). An abductive approach tries to explore and identify patterns and themes considering the phenomenon (Raholm, 2010), resulting in a conceptual framework which would be compared through applying existing data to a new theory or to modify an existing theory (Saunders et al., 2016). Using an abductive approach lays focus on understanding the empirical findings, as well as utilizing existing literature. Further reasons to why an abductive approach is applied to this research, is that even though existing theories are used in order to answer the research questions, solely looking at these may not be sufficient in finding all answers to the questions (Ketokivi & Choi, 2014). Since there is a lack of existing research within the specific phenomenon of alternative e-payments, an abductive approach allows the researchers to not only use what has been previously established within the topic, but also interpret literature from other contexts. The application of abductive reasoning to this thesis enables the researchers to during the course of the research, go back and forth between existing literature and the empirical findings in order to constantly reevaluate how the information is being interpreted (Alvesson & Sköldberg, 2009). Furthermore, this research does not pursue an absolute conclusion but instead aims to introduce a best possible explanation, which is in line with abductive reasoning (Bryman, 2016).
3.3 Research Purpose

The purpose of a research can be divided into three different categories, either exploratory, descriptive or explanatory. An explanatory study looks at a problem and situation and aims at explaining the relationship between the variables (Saunders et al., 2016). Even though this approach could be argued for to an extent, the main purpose of the thesis is not to find the causal relationship. Descriptive research refers to assembling an accurate measurement of a certain group of individuals, an event or situation, which is not applicable to the following study (Saunders et al., 2016). Instead, an exploratory approach initially views the topic through a broad lens before narrowing down as the process of the research progresses. It aims at viewing a problem from a new perspective, which is especially relevant due to the topic of e-payments being relatively undefined. This is an important element of the study in order to better understand the phenomenon. Exploratory research has the characteristics of open questions to gain insight into the topic. The same applies to questions asked during the empirical data collection. There are several ways of conducting this approach, including existing literature, having individual in-depth interviews, or focus groups in order to gain a better understanding of the field of research. An advantage of applying an exploratory approach is its flexibility in adapting to change that might emerge along the process. This can be beneficial for the study, as one of the aims is to develop theory, where the empirical findings are of great importance (Saunders et al., 2016).

3.4 Research Strategy

According to Saunders et al. (2016), a research strategy can be explained as a plan on how the authors intend to answer the research question(s) and therefore, the choice of research strategy will be based on the research question(s). There are several strategies that can be used under an interpretivism paradigm: Experimental, survey, case study, action research, grounded theory, ethnography, or archival research. The different options enable various ways to follow certain patterns when conducting research (Saunders et al., 2016).

According to Yin (2014), a case study is an in-depth inspection of the given topic/phenomenon within a real-life environment, making it relevant for the purpose of this study which relates to gaining a deeper understanding within the consumer adoption of alternative e-payments. Conducting this exploratory research paves way for gaining more detailed information regarding the case. In other words, facilitating the understanding of the “why” in this specific paper. Due to this, the chosen case in this paper can be considered as the community of users.
of alternative e-payments within Sweden. The given strategy aims at understanding the dynamics of the chosen topic/phenomenon (Flyvberg, 2011). This will be done through exploring existing theory as well as questioning the current literature within e-payments and other similar contexts. Understanding the context of the phenomenon is fundamental when conducting a case study strategy. A common criticism of the chosen strategy is its limitations of generalization due to the smaller sample sizes (Yin, 2014), but as explained this study is not aimed at reaching a generalized conclusion.

3.5 Sampling
When choosing a sample it is important that the chosen sample must be able to provide valuable information in regards to the research question. There are two different types of sampling techniques, probability sampling and non-probability sampling (Saunders et al., 2016). Given the qualitative nature of this paper, non-probability sampling is deemed as the most appropriate method of data collection. Non-probability sampling, meaning, the probability that each participant chosen from the sample cannot be guaranteed to be a generalized representation of the target population. Another associated risk with non-probability sampling is that it can neither be guaranteed that those chosen have knowledge or answers related to the research question. However, it is still possible to generalize from this approach. Generalizations are being made towards a theory instead of towards a population. The non-probability sampling includes different ways of selecting the targeted audience. For this study, a purposive sampling technique will be used, meaning that the researchers will use their judgment to select candidates that are able to give valuable insight on the phenomenon and fulfill the objectives of the paper. The given method is commonly conducted on smaller samples and cannot be considered a statistically representative generalization of the targeted population (Saunders et al., 2016).

For this study, the target audience can be identified by setting requirements during the sampling stage. Hence, when selecting a sample, the candidates needed to fulfill two criteria to be able to provide rich information (Saunders et al., 2016). Firstly, the sample needs to be Swedish. This is because the aim of the study is to examine the Swedish landscape, and therefore it is essential for the participant to be ingrained within the Swedish culture, in order to gather the relevant information for this study. Secondly, the candidates need to have experience in using alternative e-payments through engaging within the e-commerce environment, having previously utilized these methods when transacting online. In order to increase the likelihood of gaining in-depth knowledge on the topic, it was chosen to apply a homogeneous sub-
purposive sampling strategy. This strategy implies that the researchers focus on a particular group in which the sample illustrates similar characteristics. These characteristics are in literature implied to for instance be location, occupation, interests or age (Saunders et al., 2016). However, in this study, the most relevant mutually inclusive similarities were deemed to be age and experience of using alternative e-payments. In regards to gender, there is a relatively even distribution between male and female respondents, which helps the research avoid possible gender biases, although the variable is not considered as a characteristic of importance for this study. There are limitations to the generalizability of the research, since time constraints and lack of resources, makes it infeasible to examine all individuals within the Swedish society. However, there are indicators to which group of individuals that are most appropriate to answer the research questions. Studies conducted by a Swedish data-gathering agency (Sverige Betalar, 2015) highlighted that the most prolific users of the mainly established alternative e-payment services in Sweden were 18-29 year olds. The deviation of usage between age categories is significant, and therefore, studying older generations would not be as relevant as choosing the age group with a proven highest propensity to adopt (Czaja, Charness, Fisk, Hertzog, Nair, Rogers, & Sharit, 2006). Previous literature elaborates on that the younger generation beholds specific characteristics that make them more adept to understanding and implementing a technology within their daily lives, partly due to technology being a fundamental part of their upbringing. This age group is likely to be able to provide firms with knowledge that can assist in predicting adoption of technologies, as well as being the change agents within a social structure. The majority of millennials are considered to be early adopters, who in DIT research, are considered to be the most prominent opinion leaders having a large influence on other social groups (Blackburn, 2011).

3.6 Empirical data collection – Semi-structured interviews

Conducting a qualitative study enables one to use various methods in order to collect empirical data: Interview, focus groups, protocol analysis, observations etc. For this research, focus groups could be regarded as an option for collecting data, being a form of interviews that are made of a group of participants who discuss the topic. However, according to Saunders et al. (2016), the downside of interviewing in a group compared to one-to-one interviews is that the data is less likely to provide in-depth details regarding the phenomenon. As this research aims at gaining a deeper understanding of the factors that affect the adoption of alternative e-payments, focus groups will not be applied as a data collection method. There are also more biases that can appear during group sessions. Participants can influence each other to biased
views on the problem, which can lead to biased outcomes. Another risk of using focus groups can be the lack of transparency when a larger group is asked to answer questions simultaneously. This risk can also be applied to interviews, which is why a large emphasis was put on gaining the trust of the interviewee, in order to create openness throughout the conversation. Clearly communicating to the participant beforehand, that their identity would be anonymous is a further way to increase transparency and make those partaking more comfortable in answering the interview questions (Saunders et al., 2016). Interviews can be a useful way to not only collect data, but also dig deeper within a broad area. Due to this reasoning, the study will choose to conduct interviews as a data collection method. The interviews can be conducted through three different strategies; structured, semi-structured or unstructured interviews. As mentioned earlier, the aim is to gain a deeper understanding of the problem, which defeats the purpose of structured interviews, as it does not offer in-depth knowledge (Saunders et al., 2016).

This research will conduct semi-structured interviews that are also supported by Saunders et al. (2016), who explain that semi-structured interviews are recommended for qualitative exploratory studies. Semi-structured interviews allows for depth and dialogue, where questions can be prepared prior to the interview, but can also be adapted to the nature of the discussion. The researchers created a list of questions (see appendix 1) that functioned as the core of the interviews, guiding the participant to provide elaborative answers, as well as facilitating the possibility for probing questions often beginning with “why” or “how”. These can be applied during the interview and give the possibility for open answers within the intended structure. The planned questions are built upon the proposed research framework (see table 2), as the purpose of the data collection is to see if the proposed research framework can be applied as factors of adoption within the phenomenon and its context as well as understanding why the factors affect adoption.
Table 1 - Summary of the Interview Participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Country of Origin</th>
<th>Age</th>
<th>Gender</th>
<th>Occupation</th>
<th>Years of Experience with alternative e-payments</th>
<th>Date of interviews</th>
<th>Length of interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>Sweden</td>
<td>23</td>
<td>Male</td>
<td>Primary School Teacher</td>
<td>5</td>
<td>2018-04-10</td>
<td>00:42:10</td>
</tr>
<tr>
<td>Participant 2</td>
<td>Sweden</td>
<td>24</td>
<td>Female</td>
<td>Customer Support</td>
<td>5</td>
<td>2018-04-10</td>
<td>00:53:02</td>
</tr>
<tr>
<td>Participant 3</td>
<td>Sweden</td>
<td>27</td>
<td>Female</td>
<td>Sales Associate</td>
<td>7</td>
<td>2018-04-11</td>
<td>00:41:57</td>
</tr>
<tr>
<td>Participant 4</td>
<td>Sweden</td>
<td>27</td>
<td>Female</td>
<td>Buying Assistant</td>
<td>6</td>
<td>2018-04-12</td>
<td>00:47:12</td>
</tr>
<tr>
<td>Participant 5</td>
<td>Sweden</td>
<td>25</td>
<td>Male</td>
<td>Student</td>
<td>5</td>
<td>2018-04-12</td>
<td>00:35:25</td>
</tr>
<tr>
<td>Participant 6</td>
<td>Sweden</td>
<td>24</td>
<td>Male</td>
<td>Sales Associate</td>
<td>5</td>
<td>2018-04-13</td>
<td>00:39:46</td>
</tr>
<tr>
<td>Participant 7</td>
<td>Sweden</td>
<td>24</td>
<td>Male</td>
<td>Student</td>
<td>4</td>
<td>2018-04-13</td>
<td>00:43:16</td>
</tr>
<tr>
<td>Participant 8</td>
<td>Sweden</td>
<td>22</td>
<td>Female</td>
<td>Student</td>
<td>8</td>
<td>2018-04-14</td>
<td>00:45:36</td>
</tr>
<tr>
<td>Participant 9</td>
<td>Sweden</td>
<td>26</td>
<td>Male</td>
<td>Football Player</td>
<td>4</td>
<td>2018-04-14</td>
<td>00:37:11</td>
</tr>
<tr>
<td>Participant 10</td>
<td>Sweden</td>
<td>25</td>
<td>Male</td>
<td>Student</td>
<td>4</td>
<td>2018-04-15</td>
<td>00:41:15</td>
</tr>
<tr>
<td>Participant 11</td>
<td>Sweden</td>
<td>28</td>
<td>Female</td>
<td>Musician</td>
<td>5</td>
<td>2018-04-15</td>
<td>00:38:46</td>
</tr>
</tbody>
</table>

3.7 Interview Process

To begin with, contact was made by reaching out to prospective participants and thereafter evaluating their compatibility with the study. Channels that were utilized in order to gain
contact were personal networks, friend circles as well as fellow students to find participants with the relevant characteristics for this study. The final interviews were mainly conducted over the phone, due to the proximity dispersion of the participant group. A number of the participants were spread out in different locations across the country, such as Boras, Gothenburg and Malmo, making it more appropriate to conduct these interviews over the phone. A number of the interviews were also held in the premises of Jönköping University and all interviews were audio recorded, and later transcribed in order to structure the content, which enabled a more precise understanding of the data. This gave the interviewer more time to focus on listening to the respondents and adapt to the semi-structured nature of the interview, instead of being occupied with taking notes.

The structure of the interview was clearly communicated on beforehand, where the interview process was divided into different parts. A short questioning of the interviewees’ background was done in order to gain rapport, asking questions related to age and occupation. Then the topic was introduced, making sure that the participants understood the context of the research. Explaining that the questions referred to the usage of alternative methods within an online environment, and between businesses and consumers. In order to gain an understanding of the interviewees’ level of experience, questions were asked regarding how frequently the participants consumed online, their preferred payment option, years of experience as well what type of products were bought online. Lastly, interview questions based on the proposed research framework were stated together with the probing questions that were adapted during the course of the conversation. Even though Saunders et al. (2016) recommend between 5-30 interviews in order for semi-structured interviews to achieve credible results, it is also stated that interviews shall continue until no new relevant data is gathered. In this case, theoretical saturation occurred after the 11th interview not making it relevant to pursue further data collection. The time of the interviews had a small variation (see table 1), depending on the respondents’ willingness to elaborate on the answers, and the pace of the discussion. The chosen language of the interviews was the mother tongue of the interviewees, which in this case was Swedish, in order for the participants to feel comfortable and therefore provide as elaborative and meaningful answers as possible.

3.8 Secondary data

In order to make sure that the objective of the research is fulfilled, it is important to consider information from sources that present valuable facts regarding the topic. This type of
information gathering is referred to as secondary data. When this data is gathered it can add additional knowledge, interpretations or/and outcomes than if the focus was too narrow (Bulmer, Sturgis & Allum, 2009).

Saunders et al. (2016), explains that secondary data can be divided into three subcategories; document, survey, and multiple sources. Document secondary data is often used in research that gathers primary data. The definition of document secondary data is; data, saved in physical form as well as digitally, that is documented through time and is used in the analysis for future purposes (Lee, 2012). Documented secondary data includes texts on web pages, books, journals and magazine articles. The necessary information can be collected from various sources, such as credible websites, in this case, Postnord, Internetstiftelsen i Sverige (IIS) and others who present valuable information regarding e-commerce and e-payments as well as presenting statistical data. Furthermore, in order to find the relevant theories and frameworks for this research, and to gain a better understanding of what has previously been written, databases such as Google Scholar, Primo and Scopus were used. This gave the researchers access to literature concerning the phenomenon. Keywords that were utilized, were for instance; “e-commerce”, “e-payment”, “mobile-payments”, “alternative e-payment”, “online-payment”, “technology adoption”, “TAM” and “DIT”, both explicitly and interchangeably.

3.9 Analysis of data

Being able to understand the qualitative collected data is essential in order to find valuable information during the analysis stage of the research (Bryman, 2015). An interpretivism paradigm allows the researcher to collect and analyze data in an interactive nature, allowing the research to observe in-depth themes, patterns, and relationships. This type of data gathering tends to be ambiguous and complex compared to a quantitative study. Therefore it is essential that the analysis of the data must be sensitively conducted in order to have meaning. Among the various analysis methods, pattern matching is used in order to analyze the empirical data and compare it with previous literature in order to find relevant patterns. If the two patterns illustrate significant similarities, the validity of the case increases (Saunders et al., 2016). This analyzing method is deemed most appropriate to this research since the researchers want to explore if the existing research within the context of alternative e-payments can be connected to the empirical findings in the form of patterns. Furthermore, Yin (2014) explains that pattern matching is one of the favored methods when conducting a case study, which is the research strategy of this thesis. The information gathered from the interviews was meticulously analyzed
in order for the researchers to be able to identify important patterns between literature and the empirical findings. This was done through highlighting the different answers and structuring them into the identified categorical factors from the proposed research framework, in order to see the similarities among the respondent’s answers. After categorizing the findings, it was again critically viewed a second time to make sure that the respondents’ stance on each factor was correctly observed.

3.10 Trustworthiness of research

In order for research to contribute to science, it is important for it to be trustworthy. This can prove to be a challenge for researchers, especially when conducting qualitative studies (Lincoln & Guba, 1985). In research, the terms validity and reliability are commonly used to explain the researches’ credibility, but according to Saunders et al. (2016), the two terms are intended for use within quantitative studies and are often misused within qualitative research. Lincoln & Guba (1985) reformulated the terms.

Dependability, a parallel term for reliability (Lincoln & Guba, 1985), implies the importance of presenting in detail, how the research process has been conducted which in this case has been shown throughout the methodology. This enables the reader to grasp and critically evaluate the chosen research methods, such as the choice of research approach, data analysis and the formulation of interview questions. The credibility of the paper, being one of the most important factors in achieving trustworthiness (Lincoln & Guba, 1985), emphasizes that the empirical participants’ in the research understand the problem/question, making it possible to give rich information regarding the intended purpose. Having participants who feel comfortable and at ease, can provide information more freely than those who are not (Shenton, 2004). In order to do so, it was communicated to the participants of the interviews, that their participation would be anonymous, making it easier for those partaking to express their genuine opinions and thoughts. Furthermore, in order to ensure that the participants did not misinterpret the questions, and gave answers related to what was originally intended, a similar question was stated in a varying context on multiple occasions. This was also done in order to avoid the personal biases of the interviewee. Transferability is associated with how the research can be applied to other areas and situations (Shenton, 2004). Due to qualitative research often being narrowed down to a minor number of participants and being focused on a specific purpose, it is usually synonymous with difficulties regarding generalization. However, although this paper beholds those criteria’s, Lincoln & Guba (1985) explain that the research can instead be transferable to
other contexts, or in this case, it can be used as the foundation for an even more narrowed view of the topic.
4. Empirical findings

This section of the thesis presents the empirical data collected from the interviews. The content from the interviews are presented in relation to the proposed factors, as well as elaborating with quotes that were gathered from the interviews.

4.1 Perceived Usefulness

The findings from the conducted interviews found a clear pattern, that PU was commonly mentioned as one of the main factors of alternative e-payment adoption. The advantages of using alternative e-payments, were shown to be the ease of accessibility, the possibility to receive a good without having paying for it, the speed of the transaction process and not having to provide extensive private information.

The interviewee’s elaborated on how they preferred not having to spend time finding their wallet in order to facilitate a transaction. Given that most alternative e-payments are conducted through Bank-ID, it was seen as an advantage that the transaction process requires less input maintaining the same level of security. This was further exemplified with the participants’ emphasis on quicker transactions, illustrating the importance of speed. In certain examples, it was shown that the participants would postpone a purchase, due to the inconvenience of having to retrieve one’s card details.

“Swish is the easiest, it takes no time. I usually always carry my mobile phone. If I’m paying with my card, I have to spend time finding my wallet. Swish is probably the method with least steps in the process”. (Participant 8)

Another aspect to why alternative e-payments were advantageous was that the users did not have to provide the merchant with private financial information, which helped speed up the transaction process, but ultimately removed the uncertainty of purchasing through e-commerce websites which were perceived as non-secure. Consumers also valued the possibility to order a good, receive it, evaluate it and then make a decision regarding purchase without having to pay for it in advance. This was specially discussed when goods reached a certain price point or when the shopper, for instance, experienced uncertainty regarding the size or characteristics of an item. This function enabled consumers to transact, without having to experience liquidity
related obstructions, opposed to what they would have experienced with conventional e-payments.

“As I mentioned earlier, Klarna doesn’t force me to pay before receiving what I’ve ordered. I like to receive what I’ve bought, try it on and maybe think about it for a few days before actually paying for it. I like the fact that the money will only be drawn from my account once I’ve chosen the size I want to keep”. (Participant 3)

### 4.2 Perceived Ease of Use

Several of the interviewees explained that the more formal and complicated nature of some of the alternative e-payment methods was what refrained them from adopting. The process of learning about how to use it, gaining knowledge of the methods credibility, and having an increased need of input was a clear obstacle for adoption. When discussing the differences between alternative e-payment methods, it was obvious that the participants approached complex methods with hesitance, and always opted for the least complicated solution. In regards to effort expectancy, interviewees claimed that the method with the least steps in the purchasing process was the most preferred to use. Participants highlighted that during the transaction phase, they did not want to spend time on obstacles after having made the decision to purchase.

“There are fewer steps. How should I put it in to context. There are fewer steps before the payment (...) With Swish you only enter your mobile number. Well actually, it’s the same with Klarna now that you have Bank-ID. But it’s the least steps possible before the payment is done that matters”. (Participant 6)

The level of acceptance of complexity and increased effort was further exemplified as being dependent on the stage of the adoption process. To begin with, users were more willing to spend time educating themselves on how to use a certain method and fill in the necessary credentials in order to facilitate simplified future usage. In other words, when installing a method, they were willing to overcome a certain level of complexity as well as an increased level of effort. However, the opposite cannot be applied, as the participants clearly elaborated on the fact that once a method is installed, there was a high expectancy of it being easy to use.

“The safety precautions that you have to go through when installing these alternative methods. They can sometimes be complicated and be part of a several step process. But once it’s installed, it’s supposed to become much easier which it is”. (Participant 3)
“Again, once I’ve created an account and done what’s necessary, it shouldn’t be difficult to use.”
(Participant 7)

In addition, the interviews introduced a new perspective of PEOU. It was discussed that, even though in most cases, the easier an alternative e-payment is to use, and the less effort that is needed to use, the higher the likelihood of adoption. Many of the interviewees elaborated on that e-payments nowadays were not generally perceived as difficult to use, and instead, that the easiness in some cases could have a negative influence on adoption. This was further explained by those being interviewed, as a result of a lack of self-control where there is a fear of over-consuming and postponing payments due to the simplistic nature of alternative e-payment methods.

“I don’t perceive it as being difficult actually (…) If anything, it sometimes becomes too easy. You just press a button and you’ve received your item at home which maybe isn’t a good thing”. (Participant 2)

4.3 Compatibility

Users’ cultural values were evident as being influential when discussing the possibility of partial and postponed payments. Certain alternative e-payment methods were approached with negativity due to that the interviewees were afraid of putting themselves in an unfavorable economic situation. The participants tried to avoid debt payments and were generally hesitant to purchasing items that could not be afforded.

“I would absolutely not use Klarna if I were low on money (…) it feels like you’re only postponing the issue. But sure, I can understand that there are certain things you have to buy if you are ill or in need (…) But I don’t think you should buy on credit if you don’t have enough money”. (Participant 11)

New technologies were explained by those interviewed, as having to have some form of improvement from its predecessor in order for it to be adopted. If it is solely a mirror alternative to what was already offered, most of the participants expressed that they would not go through the hassle of adopting. However, if the technology was an extension of a current method, and proved to be beneficial, people were clearly more positive about the change. The amount of deviation that a new method could vary from what was previously experienced, was largely seen as relative to its benefit. But participants also explained that they experienced some form of limit to how different an alternative e-payment method could be.
“I would be open to new ways of transacting, but only to a certain extent”. (Participant 6)

“I wouldn’t change if I’ve already made the effort to use Swish. If something new were to come along that’s the same, I wouldn’t change to it if there weren’t any advantages. Otherwise it’s just a waste of time. It has to be newer or better in some way”. (Participant 7)

The benefit did not seem to have to be a clear objective one but was more underlined as having to fill the individual subjective need of the adopter. The level of compatibility was seen as relative to the type of purchase. Some alternative e-payment methods, can for instance not facilitate the user with the same form of insurance measures compared to traditional forms. Whilst other purchasing scenarios did not according to the interviewees require the same need for compatibility with the use situation.

“I would never pay for an airplane ticket with Swish, it doesn’t offer the same insurances that my card supplier does in case something were to happen.” (Participant 2)

Another compatibility measure that was identified, was how the participants felt that alternative methods were more dynamic in catering to what their specific need was in a particular use situation. It was mentioned that traditional forms of payment only offer a one-dimensional function, whilst the interviewees perceived the possibility of choosing the most suitable method as positive and something that could increase their willingness to adopt. Being able to choose the payment method that suits the situation best was seen as a positive function.

4.4 Cost

Cost was discussed as a relevant factor, but not being a major influence on adoption. The participants explained how if they had to pay to use an alternative e-payment method, they would nearly always seek to find a solution that is free of cost. The exception would be in the scenario of postponed payment where the interviewees saw the logic in having to pay a small fee when essentially taking a short-term loan. Except for this, the answers that were collected were relatively ambiguous due to the fact that each individual seemed to have a different price ceiling. With this said, some interviewees elaborated on the influence of expensive payments, where the higher the price of a good, the more willing the respondents were to adhere to a certain transaction fee. On the other hand, the interviewees also touched upon that for certain
e-payments methods, those that are utilized for quick and smaller purchases, an introduced cost would have a negative impact on adoption.

“The thing is that I only use Klarna for more expensive items, so sure, it makes sense that they take a fee when I’m the one borrowing money from them. That’s why I only use it for higher priced items (…) On the other hand, I’d never pay to use Swish. I don’t borrow anything from them (…)”. (Participant 2)

4.5 Network Externalities

The interviewees proposed that an increased amount of merchants and an increased user base has a positive effect on adoption. It was explained that even though there is no direct benefit from another individual using a certain method, the more people that are perceived to have adopted a method, the higher the level of trust the individual will feel towards said method. Furthermore, it was mentioned that the quantity of the user base, was not the only factor that had a positive effect on adoption as feedback from ones close network could also have an influence on adoption. On the other hand, network externalities can also be applied to the supply side, as the more merchants that offered a method, the more credible it was perceived to be. Similarly to the user based effects, some interviewees explicitly stated that they are more strongly influenced by a few select merchants that were perceived as highly credible, instead of a large amount. Lastly, the interviewees did not touch upon the potential utility that could be gained from an increased amount of merchants and/or users, highlighting that network externalities within alternative e-payments were only associated with trust and credibility and not a gained functional utility.

“I would choose the method that is most widely offered. There would be a certain reassurance in that it is offered among many websites (…) Then I would not have any issues with entering my personal information”. (Participant 4)

“Absolutely, if I have encountered it before at an established online store, there is more likelihood that I will trust it. I would probably go for what is more established opposed to what is used by many”. (Participant 7)

"If there is a reason for me to use an alternative method, I would without doubt talk with friends and familiars who could give advice on the service”. (Participant 1)
4.6 Trust

The interviewees’ stance on trust implied that trust is one of the most important variables, but the factor was broken down into different perspectives. It was mentioned by all that trust was of course of important, and the safety risk was evaluated each time a purchase was made. However, many of the participants explained that due to a considerable amount of e-commerce experience and usage, they were content on providing merchants with the necessary information, but only to a certain extent. Websites that were perceived as less credible was one of the key reasons to why the participants were reluctant to transact with traditional methods and more prone to use alternative e-payment methods. Even though merchants can choose to supply the user with information such as privacy statements regarding data collection and protection, these documents were often overlooked by the participants due complexity and effort needed. Instead, certain participants mentioned Bank-ID as a more convenient way to guarantee if a website can be trusted or not.

“When I use Bank-ID as verification, I don’t necessarily have to read about the security level of the website. Since many of the banks and websites use it these days, it becomes a safety net for me” (Participant 3)

The participants explained that a certain level of trust was necessary, in order to even consider using any e-payment method, as it is not solely a process of adopting a technology but also a monetary exchange with an introduced risk factor for the individual. The traditional method of card payments was perceived as exposing more of the user's information, which was approached with reluctance, depending on the credibility of the website which ultimately drew them to using alternative methods. Not having to enter one's card details or bank information was seen as a preference among those interviewed. Other risk factors that were identified was the risk of receiving a good that deviated from what was expected which was explained as a strong reason to why certain participants preferred to pay after receiving the good.
5. Analysis

This section of the thesis analyses the empirical findings in section 4, in relation to the theory and theoretical frameworks presented, together with the proposed research framework. The analysis not only verifies which factors are of relevance, but also assists in understanding the consumers reasoning.

5.1 Perceived Usefulness

PU was identified to be an indicator of alternative e-payment adoption among the participants. Firstly, PU was found to be a factor that could be interrelated with the other factors, mainly PEOU, trust and compatibility. The interviewees saw it as a clear advantage that alternative e-payment methods allowed for a smoother usage, where they did not have to put in the effort of accessing their wallet or investing an unnecessary amount of time. In other words, a very similar reasoning to what was reasoned with PEOU. Another advantage that was identified by the interviewees was the benefit of not having to provide merchants with information which ultimately made transacting a quicker process. The benefits of adopting alternative e-payments were seen to be in regards with time saving, making the process of transacting smoother and ultimately having an economic advantage as introduced in the DIT literature (Rogers, 2003).

Interestingly it is explained by Arvidsson (2014) that within mobile payments it can only be seen as rational thinking that the users are prone to comparing the benefits of a new payment method opposed to what was previously established. If a new alternative does not at least match its successor in the form of time-saving, security or easiness to use, there would be no rational reason to adopt. All of these factors were touched upon by the interviewees, which further highlights that the PU of an alternative e-payment method is largely dependent on some of the other factors.

5.2 Perceived Ease of Use

It is predicted by Davis (1989) in the TAM, and later on validated by Rogers (2003) in the DIT that the more difficult an innovation is to use, and the more effort it requires, the less a user is prone to adopting it. The empirical findings further strengthened the factor of PEOU, but also introduces a paradoxical viewpoint that must be considered.
The findings from the interviews pointed clearly towards that users always preferred the alternative e-payment method with least steps in the process reinforcing the variable of effort expectancy. Interestingly, even though a high level of effort expectancy was deemed negative by all users, it was argued that during the installation phase of the process, the users had a certain tolerance for an alternative e-payment method being complex and effortful, as long as all future interactions were to be considerably less demanding. In regards to complexity, a noteworthy finding was that in general, the participants did not find all of the alternative e-payments to be complex or difficult to use. Even though effort expectancy and complexity were expressed to have a negative effect on adoption, the chosen participants were experienced within the area of alternative e-payments and did not feel that this type of innovation was novel to them. Even more interestingly, some interviewees introduced a new perspective of that in some situations, alternative e-payments can be too easy to use, which can create a certain resistance towards adoption. It was discussed that the easiness of purchasing a good without effort, was deemed none reassuring, further explained by the fact that it exposed the users’ lack of self-control. Users want a convenient method to use, but simultaneously are afraid of overconsumption, which can also be identified within the compatibility factor in regards to cultural values where the phenomenon of monetary exchange is again shown to be an influence on adoption.

5.3 Compatibility

The first indicator of that compatibility is a relevant factor, was how the interviewees elaborated on their resistance towards invoice payments. There was a general fear towards overusing the method, and being put in debt which was in line with the respondents existing values, where spending money that was not an owned resource was frowned upon. It could be seen as a sociocultural aspect where postponement of a payment goes against the grain of Swedish culture, but statistical data collected by Postnord (2017) indicates that invoicing payments is actually the most prominent alternative e-payment method among Swedish consumers. This is not necessarily a contradiction to what was previously mentioned regarding the consumers’ personal values, but an indicator towards that the cost-benefit principle can be applied. In other words, the benefits of adopting the alternative e-payment seemed to outweigh any non-compatible cultural aspect. How much an alternative e-payment method could deviate from a previous technology, was largely based on the perceived advantage of using a new method. One of the main reasons to why the interviewees wanted to adopt a new technology, would be if an improved extension of a service was introduced, opposed to say an identical method but from
another service provider. This is further supported by Arvidsson (2014), who explained that new services in the technological market must be better in some way than its predecessor for consumers to have a reason to adopt it. Interestingly, this indicates that the factor of compatibility has similarities to PU, where if it does not fulfill the dimensions of being quicker, lower in cost, or more secure, it will fail in catering the needs of the user (Arvidsson, 2014).

Furthermore, when attempting to understand the compatibility of an alternative e-payment method, the subjective opinion of the individual was deemed to be a decisive variable. Defining which alternative e-payment method is most compatible is highly subjective to the user, as some of the interviewees mentioned how certain alternative e-payment methods were more appropriate depending on use situations. An interviewee used an example of the increased possibility of being covered by insurance if for instance, something were to go wrong with a purchase. This was especially considered when the users conducted transactions from foreign websites where there were a high proximity and uncertainty. The same could be said for the possibility of postponing a purchase if the user would be uncertain between the sizing or quality of a product. All this indicates that a high level of compatibility helps in catering the e-payment method to the individual needs of the user. Furthermore, this seems to be one of the main reasons for the users to adopt alternative e-payments, due to them being more dynamic to their current need situation compared to traditional methods.

5.4 Cost
Although the frame of reference introduces cost as a factor, and that researchers such as Wu & Wang (2005) point towards that cost should be integrated with TAM, the empirical findings did not point towards cost as having a considerable influence on adoption. The interviewees explained how their priority was mostly always to find a payment solution that was free of charge which could possibly be a result of the competitive nature of the alternative e-payment market where most of the current offerings do not charge for its services. However, the acceptance of cost was subjectively seen as dependent on the sum of the transaction, where for instance some of the respondents could see the value of being charged an incremental fee, for postponing a larger payment which in its essence becomes a form of a loan. In regards to economic thinking, this goes against rational decision making where microeconomic concepts points towards that costs should be treated as absolute values, and not in relation to its price. However, this may point towards that cost in regards to alternative e-payments is highly subjective, which was further supported by the empirical findings which suggested that each
interviewee had a highly individual price ceiling on what they were willing to pay in order to use alternative e-payment methods. The theory concerning how time-saving, could have an economic impact (Pikkarainen et al., 2004) on the user cannot be applied to this study, as the respondents did not identify this perspective of cost and instead saw time-saving as being a construct of PU an PEOU.

5.5 Network Externalities

As mentioned by Mallat (2007) Network Externalities within e-payments were said to have an effect on consumers, through either an increased amount of merchants offering the service or an increased user base of the same service. The empirical findings supported the fact there is a connection between a large user base and merchant base, and the perceived credibility of a service. The interviewees elaborated on that knowing that there were large amounts of other users, functioned as reassurance that the alternative e-payment was legitimate. However, the increased user base or merchant base did not have any functional utility implications on the users which ultimately deviates from the original network externalities theory. This is supported by Arvidsson’s (2014) research on mobile payment adoption, where it is explained that a reason to why network externalities may not be a valid factor in the adoption of alternative e-payments, is its lack of person to person capabilities. After all, user-based network externalities only add functionality if the user gains utility from an additional adopter in the user market (Qasim & Abu-Shanab, 2016). Swish and Paypal (Medium.com, 2017) give users the opportunity to transact with each other, but given this paper’s limitation to the B2C market, network externalities are limited to only increasing utility through increased credibility and trust.

Furthermore, when elaborating on what actually influenced the interviewees from a network perspective, answers pointed towards a larger impact from a few select individuals within one's social network than solely being aware of a large user base. This can also be reflected on the merchant side, where it was stated that although an increase in merchants would have a positive impact on credibility, having the most established merchants offering the service had according to the interviewees a larger influence on adoption. Hence, the findings indicate that the social aspect of network externalities had a stronger impact than network effects, due to the interviewees mentioning that family and close network was an important factor in creating trust in an alternative e-payment method. Therefore, it is proposed that social influence should be treated as an individual factor due to its slight difference from network externalities, and its importance amongst the empirical findings. As well as this, it is evident that social influence is
not a direct construct of PU, given that it does not affect the user's functional utility, but instead has an influence on the user’s ability to trust the method.

5.6 Trust

As introduced in the literature by Kim et al. (2010), common security-related factors that affect the users’ trust and willingness to adopt an e-payment are often identified as privacy-related matters such as data protection and identification. However, the empirical findings did not present the same conclusion, as nearly all of the interviewees explained that although privacy matters are considered, it is not a deal breaker when transacting. It was further explained to be a result of the past experiences of the users, and that they were simply used to giving out information, and saw it as customary within online shopping. This can be seen as a result of the interviewee’s stage in the adoption process, where they have passed the early phases of adoption and are not as phased by basic online data gathering (Yousafzai, Pallister, & Foxall, 2003). However, there was a threshold on the level of information that the user was willing to provide, which was largely dependent on the perceived risk of the website highlighting that this factor could be situation specific. Some interviewees elaborated that certain alternative e-payment methods were used when they were not familiar with the merchant, or if they felt that there was a considerable product risk with the purchase. These results gravitate towards an intriguing finding, where the interviewees elaborated on that the higher the perceived risk of a merchant or good, the more likely they were to adopt an alternative e-payment method to void the gap of uncertainty. Although perceived risk according to technology adoption literature is said to have a negative effect on e-commerce adoption (Pavlou, 2003), the viewpoint on alternative methods is slightly different, as the interviews illustrate how a high-risk purchase situation is one of the reasons to why the participants chose alternative methods opposed to traditional option of card-payment. In the context of e-payments, the users did not elaborate on a perceived risk of the payment service provider, but instead that the risks associated with adoption were pointed toward the merchant. These perceived risks touch upon all of the four risk variables earlier mentioned in Pavlous’ (2003) research. Personal, seller performance and privacy risks related to the merchant seemed according to the interviewees to be of importance only if it resulted in a greater economic risk.

These findings are significant and may introduce the need to identify Merchant Risk as a revised factor, acting as an extension of trust and perceived risk, but adapted to the adoption of alternative e-payments. In the original framework presented in the literature review, Pavlou’s
(2003) study elaborated on that a higher perceived risk would lower the user’s likelihood to transact given that it was unlikely that consumers would want to interact with an opportunistic merchant. However, in the context of alternative e-payments, the trust dynamic is not only a factor of emotions between the user and the seller, but also includes a third party payment service provider where the empirical findings suggest that the consumers attitude towards the merchant in the form of trust and perceived risk, has an influence on the adoption of alternative e-payments.
Table 2 – Revised research framework

<table>
<thead>
<tr>
<th>Adoption Factor</th>
<th>Contributing items</th>
<th>Proposed effect on adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Usefulness</td>
<td>Ease of accessibility.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Possibility to receive a good without having to pre-pay for it.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>The speed of the transaction process.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>The possibility of not having to provide extensive private information.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>The cost of a transaction.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Effort expectancy.</td>
<td>Negative</td>
</tr>
<tr>
<td>Perceived Ease Of Use</td>
<td>Solution with least steps in the purchasing process.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>The least complex process during a transaction.</td>
<td>Positive</td>
</tr>
<tr>
<td>Compatibility</td>
<td>Improvements from its predecessor.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Ability to cater to the needs of the user.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Dynamic in adapting to the need of a specific situation.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Risk of unfavorable economic situations.</td>
<td>Negative</td>
</tr>
<tr>
<td>Network Externalities</td>
<td>Increased number of merchants offering the alternative method.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Increased amount of users using the alternative method.</td>
<td>Positive</td>
</tr>
<tr>
<td>Trust</td>
<td>In the payment service provider.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>In the merchants.</td>
<td>Positive</td>
</tr>
<tr>
<td>Social Influence</td>
<td>Trust gained from a close network.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Trust gained from select established merchants.</td>
<td>Positive</td>
</tr>
<tr>
<td>Perceived Merchant Risk</td>
<td>Seller performance risk.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Product risk.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Economic risk.</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Privacy risk.</td>
<td>Positive</td>
</tr>
</tbody>
</table>
6. Conclusion

This section of the thesis presents a conclusion of what was discussed in the analysis section, by answering the two research questions that were introduced in the beginning of the research thesis.

The aim of the thesis is to shed light on the relevant topic of alternative e-payment method adoption and understand the factors to why consumers choose to adopt these methods. The research questions are defined as; RQ 1. “What factors affect the consumer’s adoption of alternative e-payment methods in Sweden?” & RQ 2. “Why do these factors affect the consumers adoption of alternative e-payments?” meaning that there is a two folded purpose to this thesis.

Firstly, to answer the first RQ, the factors identified after having combined the empirical findings with the theory presented in the frame of reference were shown to be: PU, PEOU, Compatibility, Network Externalities, Social Influence, Trust and Merchant Risk. In answering the second RQ, PU was identified as a factor of adoption, highlighting the perceived benefits that the user experiences from adopting an alternative method. Our findings point towards that these benefits are classified as ease of accessibility, not having to put in an effort or provide extensive information, as well as the time-saving advantage. Another construct of PU was the opportunity of receiving a good without having to pay for it in advance. This factor was linked to others, mainly PEOU and Compatibility, as well as containing similar constructs to Cost. Our findings also imply that it is perfectly rational for users to compare a new e-payment method from what was previously used in order to understand its benefits. Regarding the factors of PEOU, findings showed that people preferred the method that entailed the least steps in the transaction process. Furthermore, the tolerance level of PEOU varied dependent of the stage of adoption, showcasing that there was an acceptance of complexity and effort expectancy during the installation phase. Interestingly, alternative e-payments, in general, was not deemed as being difficult to use, and that if an alternative e-payment method is too free from effort, it could be approached with negativism implying a paradox. When it comes to Compatibility, users did not adopt alternative e-payments for short-term economic gains but instead looked for an alternative that could cater their individual and situational needs. How much a new method could deviate from what previously established, was dependent on its benefit and how much it improves usage which can be seen as a similar construct to PU. There was a fear among the participants of being
put in debt, which did not align with their cultural values, meaning their perceived risk of an unfavorable economic situation had a proposed negative effect on adoption. Cost was found to be a factor of adoption, but due to current competitive nature of alternative e-payments where actors do not currently compete on price, and given that cost was seen as relative to the sum of the transaction, it is appropriate to have the factor of cost as a construct of PU. Network externalities did not show to have any functional utility implications on the user and instead affected the methods credibility. Select individuals and credible merchants were explained to be more important as reinforces of trust, meaning that Social Influence is identified as an indicator of adoption. Trust is identified as an important factor due to the inclusion of monetary exchange, which could both be targeted towards the payment service provider and merchant. Notably, perceived risk is pointed towards the merchant, whilst Trust is both applicable to the merchant and the third party payment service provider. Meaning that a perceived merchant risk increases the likelihood of a user to adopt alternative methods due to its uncertainty minimizing nature. Finally, this is the reason to why Merchant Risk is introduced as a factor since it also touches upon the constructs of perceived risk, which are seller performance risk, product risk, economic risk, privacy risk.
7. Discussion

This final part of this thesis discusses the outcomes of the research through presenting theoretical and practical implications, limitations and suggestions for future research.

7.1 Theoretical Implications

Our study indicates that the factors to why alternative e-payments are being adopted can be identified within the TAM framework, but must also be accompanied but external factors and alternative theories. These factors have individual meanings and definitions, but our empirical findings indicate towards that there is a high level of interdependency between them. That several factors, for instance, Relative Advantage and Compatibility, are, without a specific context and situation, very similar, making it challenging to segregate them. These factors are also defined in a very broad sense making it feasible to apply them to many technology adoption situations, but to gain a deeper understanding of why a certain e-payment method is being adopted, the factors must be put into a specific context and explain what the meaning of a factor in a certain situation is. Findings from the previous literature show that ease of use has a positive effect on adoption, which is partially supported by the empirical data, but the paradoxical findings also show that this is only applicable to a certain extent. There is a lack of research explaining how high PEOU can result in negativity, showing anomalous traits within the factors of adoption illustrating a potentially new perspective that has not been previously studied. Lastly, the results from this study show that factors of adoption, and what each factor entailed, slightly varied depending on the chosen alternative e-payment method and its characteristics creating the possibility to shed further light on the topic through a more precise study, focusing on a specific alternative e-payment method.

7.2 Practical Implications

The findings from this thesis point towards several implications for firms offering alternative e-payment solutions. Regarding the consumers’ reasons for adoption, it is important for firms to study the user’s behavioral reasoning in order to offer a problem-solving solution. Pure simplicity in use situations was identified as an indicator of adoption, which shows that firms nowadays should strive to create convenient solutions for the user. It is also of importance for firms to realize that although cost was not identified as a key factor in adoption, introducing a
transaction cost could have negative repercussions, as well as competing on price is not an advised strategy either. Instead, firms should target their focus on building a credible reputation which ultimately increases the level of trust in the B2C relationship. However, the findings imply that the strategy used should be targeted on collaborating with select individual merchants that are of a high social reputation, instead of striving towards the number of merchants integrated with.

7.3 Limitations
Within this thesis, there were limitations identified due to the empirical nature of the study. To begin with, the data gathered was collected in Sweden alone. However, the results indicate that social and cultural factors must be considered, as well as the understandings of the phenomenon differs depending on context. Therefore, applying the same study to different cultural environments and geographic locations may hold different results. Previous research has also explained that the level of experience and usage of e-commerce can vary between age categories meaning that our findings may be non-applicable to other generations creating a limit of generalization. A further limitation of this study was the relatively smaller sample size from where the empirical data was collected, meaning that the results can lack in generalizability. Lastly, another constraint was the lack of specific research applied to the topic of alternative e-payment adoption, meaning that if other research within technology acceptance was incorporated within the research, it might have had an impact on the findings.

7.4 Future research
This thesis focused on identifying the factors of adopting alternative e-payment methods within the B2C market in Sweden. However, given the current market conditions, and that alternative e-payments are as well being increasingly adopted within other functions, there is a reason to believe that understanding adoption within C2C and B2B markets as well, could contribute to greater knowledge of the overall phenomena. This is especially interesting due to the findings, pointing towards that users today apply alternative methods to other aspects than shopping online. They also utilize alternative e-payment methods within their daily life, exchanging money between individuals. Given that the usage of a method in a C2C environment seems to have a proposed impact on B2C usage, it would be of value to examine the relationship between these areas.
We chose to examine Sweden as a population due to its high-level innovativeness within e-payment adoption as well as a high usage of alternative methods. However, as previously discussed, factors of adoption is perceived to be a variable of geographic location making it interesting to compare the findings presented in this study with another geographical location to identify similarities and possible differences. The same can be said for the chosen demographic. Even though this study focuses on a specific age group and adopter category, given that one of the purposes is to bridge the gap between merchants and consumers, we would recommend future researchers to investigate if the findings would differ from studying a different demographic. Lastly, the results from the findings indicate that there are newly proposed factors identified that could possibly be interesting to test in a quantitative study to identify the proposed effects and measure their impact on adoption.
8. Reference list


Appendix 1

Semi-structured Interview Question Template:

**Opening Questions:**
What is your name?
How old are you?
What is your current occupation?

**Introduction questions:**
How often do you conduct purchases online?
What experience do you have with alternative e-payment methods?
Between Klarna, Swish and Paypal, what is your preferred payment option?
Except of your preferred option, what is your view on the others?
What category of products do you usually prefer to purchase online?
For how long time have you used alternative e-payment methods?

**Factor related questions:**
You mentioned earlier that you prefer X payment method, for what reasons?
How do you feel about the difficulty of using any of these alternative methods?
How do you feel about the complexity of using these methods?
How do you feel about putting in an effort when using these methods?
How would observing other people using the service affect your approach?
If a friend of yours that you trust uses a certain method, how does it affect your decision to use it?
How do you feel about the benefits of using invoice or mobile payment compared to card payment?
How important is it that the benefits of using any of these methods is easily understood and clearly communicated? Why?
When you are entering private information such as your social identification number, how does it make you feel?
When you are entering private financial information such as your card details, how does it make you feel?
Are there risks that you associate with these alternative e-payment methods, if yes, which and why?
An invoice payment usually charges for the delayed service, how does this influence your decision?

Swish is maybe the quickest of all of the payment alternatives, how does the time saving aspect influence your decision?

How does time influence your decision when using a method?

If many online merchants offer the payment method, how does this influence your decision?
If few online merchants offer the payment method, how does this influence your decision?
If many consumers are using the method, how does it influence your willingness to use it?
If few consumers are using the method, how does it influence your willingness to use it?
If you are temporarily low on money, does the option of postponing the payment affect your perception of using the payment method? Why?

How important is it that the payment methods are in line with previous established solutions?

How would you feel if, alternative e-payment methods would include a cost for you to be able to use the service?