THE USAGE INTENTION OF ONLINE PAYMENT METHODS AND THE EFFECTS OF WILLINGNESS TO PAY, PAIN OF PAYING AND PERCEIVED OWNERSHIP

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ABSTRACT

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Abstract
The objective of this research was to study the factors influencing consumer's intention to use an online payment method and how this usage intention affects buying behaviour. The previous studies have mainly focused on traditional payment methods, leaving the online payment methods without a sufficient attention. The four most popular online payment methods, which are credit card, internet banking, PayPal and invoicing, were chosen for this study to fill this gap.

The research utilized the Technology Acceptance theory and the acceptance of mobile payments model. According to them, perceived usefulness, perceived ease of use, perceived risk and attitude affect the usage intention of new technologies. The effect of payment behaviour on buying behaviour, however, is a broad research field. Willingness to pay, pain of paying and perception of ownership were, therefore, chosen to this study due to the researcher's point of interest. The indicators for measuring buying behaviour were collected from several studies and models.

The data were collected through quantitative structured questionnaire, which was distributed through an internet survey. All respondents were required to answer on questions based on the same purchase situation and one randomly assigned online payment method.

Based on the results, consumer's intention to use an online payment method is affected by attitude, perceived usefulness and perceived ease of use. However, perceived risk does not affect usage intention. Previous studies are divided into two extremities about the effect of perceived risk on usage intention. Therefore, the results are partially consistent with the previous studies. The usage intention was also found to affect pain of paying and perception of ownership. However, the effect on willingness to pay was not significant. The previous research has mainly focused on traditional payment methods. Therefore, there is not enough information about willingness to pay in an online context. However, based on the results, it can be noted that factors affecting willingness to pay with online payment methods are not the same as with traditional payment methods.

Key words
Willingness To Pay, Perceived Ownership, Pain of Paying, Attitude, Risk Perception, Perceived Ease of Use, Perceived Usefulness

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Tiivistelmä
Työn tavoitteena oli tutkia kuluttajan maksumenetelmän valintaan vaikuttavia tekijöitä sekä näiden valintojen vaikutusta kuluttajakäyttäytymiseen. Aikaisemmat tutkimukset ovat pääsääntöisesti keskittyneet perinteisiin maksumenetelmiin, eikä online-maksumenetelmiin ole kiinnitetty riittävästi huomiota. Tästä syystä tutkimukseen valittiin yleisimmät online-maksumenetelmät, joita ovat maksukortti, verkkopankki, PayPal ja lasku.

Tutkimuksessa hyödynnettiin Technology Acceptance – teoriaa sekä consumer acceptance of mobile payments – mallia. Niiden mukaan kuluttajan uuden teknologian omaksumiseen vaikuttavat koettu hyöty, helppokäyttöisyys, riski sekä asenne. Maksukäyttäytymisen vaikutus kuluttajakäyttäytymiseen on laaja tutkimusalue. Maksuhalukkuus, koettu epämukavuus maksutilanteessa sekä koettu omistajuus valittiinkin tutkimuksen kohteiksi tutkijan oman mielenkiinnon vuoksi. Kuluttajakäyttäytymistä mittaavat indikaattorit pohjautuivat useihin aikaisempiin tutkimuksiin ja mittareihin.

Tutkimusaineisto kerättiin kvantitatiivisella strukturoidulla kyselylomakkeella, joka jaettiin internet-kyselynä. Kaikkien vastaajien tuli vastata annettuihin kysymyksiin saman ostotilanteen sekä yhden arvotun maksumenetelmän pohjalta.

Tulosten mukaan kuluttajan aikomukseen maksaa online-maksumenetelmällä vaikuttavat kuluttajan asenne, koettu hyödyllisyys ja koettu helppokäyttöisyys. Edellisistä poiketen koetulla riskillä ei ole vaikutusta käyttöaikomukseen. Aikaisemmat tutkimukset ovat jakaantuneet koetun riskin vaikutuksen osalta kahteen ääripäähän, joten voimme todeta, että tulokset ovat osittain johdonmukaisia aikaisempien tulosten kanssa. Käyttöaikomuksella on lisäksi vaikutusta koettuun epämiellyttävyyteen sekä koettuun omistajuuteen. Maksu- ja käyttöaikomuksen välillä ei ole merkittävää yhteyttä. Aikaisemmat tutkimukset ovat tässäkin keskittyneet perinteisiin maksuvälineisiin, eikä maksuaikomuksesta online-kontekstissa ole riittävästi tietoa. Tulosten mukaan voidaan kuitenkin todeta, että maksuaikomukseen verkossa vaikuttavat eri tekijät kuin maksuaikomukseen perinteisillä maksuvälineillä.

Asiasanat
maksuhalukkuus, koettu omistajuus, koettu epämukavuus maksutilanteessa, asenne, koettu riski, koettu helppokäyttöisyys, koettu hyödyllisyys

Säilytyspaikka Jyväskylän yliopiston kirjasto

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1 INTRODUCTION

It is very important to determine how consumers choose between payment methods, because every government has an obligation to support effective payment systems. However, knowing how consumers choose to pay is a complex problem, because consumers are heterogeneous in their financial and cultural backgrounds. Consumers also have multiple options to choose from when making payments. Current studies, however, have mainly focused on non-electronic options such as cash, check and credit and debit cards. (Rysman 2009.)

The effect of different payment methods on consumer's buying behaviour is also important to understand. There might, for example, be differences in how consumers spend when paying with different payment methods. Understanding these behavioural differences and why they occur is an important research field. However, studies that have covered this topic, have also been mainly focusing on traditional payment methods (e.g. Schuh & Stavins 2012; Hirschman 1979; Jonker 2007, Carow & Staten 1999).

The importance of studying online buying behaviour is widely recognized. This can be proved by the amount of studies made about online buying behaviour. However, the buying behaviour cannot be truly understood without taking into account the payment behaviour. Consumers' reasons to shop online are linked to convenience and broader range of selection and information, while the motives not to shop online are closely related to payments and their security issues. The security of online shopping is directly influenced by consumers' abilities to control the actions of the Web vendor or environmental control. Consumers usually do not like to provide credit card information because of the fear of hackers or misuse of private information. (Hoffman, Novak & Peralta 1999.)

Moreover, just as the online purchasing behaviour differs from traditional buying, paying online also differs from traditional paying. Therefore, it is not possible to only rely on the current knowledge of the payment behaviour, but the studies about payment behaviour must be broadened into the online framework.

1.1 Study Background

Today consumers have various ways to pay while purchasing. Consumers can pay for example with cash, checks, credit cards, direct debit transactions, mobile payments and alternative online payment methods, such as PayPal and Google Checkout. The payment can be made before, during or after the consumption. Additionally, the payments can be performed at once or in sections.

Consumer's purchase decision making has been widely studied field in marketing. There is an extensive knowledge about the psychological and cultural effects on the consumer behaviour. The research field has also identified both the

decision making process and the post purchase behaviour step by step. (Hoyer, Pieters & MacInnis 2013, p. 1.) Even the knowledge about the online consumer behaviour is comprehensive. It is known that consumers buy online because of its convenience, broad range of goods and information on products, and even because of the lack of social contact. Additionally, online shopping does not require commitment, since it can be paused and continued later at any time without taking much an effort. (Wolfinbarger & Gilly 2001.) However, studies about consumer's payment behaviour are limited in amount. The first attempt to understand how consumers choose between payment methods and their effect on consumption was carried out by Hirschman in 1978. The lack of interest in this field might be because there were no significant differences between payment methods or that these differences could not have affected consumer behaviour (Hirschman 1979). However, the amount of payment options has grown since 1970s, which has resulted in the growth of interest in understanding consumer payment behaviour (Schreft 2010). Understanding consumer's payment behaviour is especially important in order to estimate the demand for different payment methods (Schuh & Stavin 2012) and to comprehend how payment behaviour might affect consumer's future consumption (Soman 2001). The study background of this field can, therefore, be divided in two objectives; how consumers decide between various payment methods and how payment behaviour affects consumer buying behaviour.

The previous studies about payment method usage intention have found that consumers' demographics, such as gender, age, educational and income levels and marital status explain how consumers choose between payment methods. For example, young consumers with higher income and educational levels tend to use more modern payment methods, such as credit and debit cards. Respectively, older consumers with lower income and educational levels tend to use less modern payment methods, such as cash. (E.g. Schuh and Stavins 2012; Jonker 2007; Carow & Staten 1999; Borzekowski, Elizabeth & Shaista 2008.) Previous studies have also found that consumers' attitudes and risk perceptions affect how consumers choose between payment methods (e.g. See-To, Papagiannidis & Westland 2014; Khan, Belk & Graig-Lees 2015; Xu, Bai & Wan 2017; Kim, Ferrin & Rao 2008). The desirability of payment method is also affected by its own features (Foscht, Maloles, Swoboda and Chia 2010). According to the earlier research, the most important features are safety, ease of use, convenience, transaction speed and cost (e.g Foscht et al 2010; Schuh & Stavins 2012; See-To et al. 2014; Jonker 2005). However, there is a disagreement between researchers on whether consumers' characteristics or the features of payment methods affect the selection process more.

From the previous research it is also known that consumer's payment choice affects consumption behaviour. For example, paying with different payment methods affects consumer's perception of ownership (Kamleitner & Erki 2013), the amount consumer is willing to pay for products (Prelec & Simester 2001; Raghubir & Srivastava 2008) and how consumer perceives prices (Raghubir & Srivastava 2008; Soman 2001). The feeling of pain while paying for the products

is related to all of these behavioural effects. The more painful the consumer finds the paying to be, the stronger will be the feeling that the object of purchase is his or hers (Shah, Eisenkraft, Bettman & Chartand 2015; Kamlaitner & Erki 2013; Richins 1994), the less consumer is willing to pay for the product (Prelec & Simester 2001; Feinberg 1986; Soman 2001; Raghubir & Srivastava 2008), the better he or she is able to recall the actual amount spent, and the less the consumer will be spending in the near future (Soman 2001; Dutta, Järvenpää & Tomak 2003).

1.2 Study Objectives and Research Questions

It can be clearly noticed that the studies regarding usage intention of payment methods lack a consistency in their results. The aim of this study is to find some coherence in this field. The existing studies on how consumers decide between given payment methods consider mostly consumers' demographics and methods' characteristics. In addition, studies do not agree on which features explain the decision process the most. Most studies have also only studied the traditional payment methods, such as credit and debit cards and cash. Furthermore, only few have included more modern payment methods such as mobile payments or online transactions. Additionally, only few studies have attempted to understand how payment methods may influence current and future buying behaviour, especially pain of paying, willingness to pay and perception of ownership. Therefore, the objective of this study is to describe the consumer's online payment behaviour and gain novel insights into its effect on consumer's buying behaviour.

The objective is approached by the following research questions:

1. How do consumer's attitude, perceived risk, perceived usefulness and perceived ease-of-use affect the intention to use an online payment method?
2. How does the intention to use an online payment method affect online buying behaviour?
   - 2.1. How does the intention to use an online payment method affect the perception of ownership?
   - 2.2. How does the intention to use an online payment method affect willingness to pay?
   - 2.3. How does the intention to use an online payment method affect pain of paying?

1.3 Evolution of payment methods

The most primitive payment form included barters, which means consumers had to exchange goods and services directly to other goods and services. This kind of commerce was however complicated, because consumer had to find a person who wanted to buy what the consumer was selling and was willing to sell what the other person wanted in exchange. Over the centuries these barters have been replaced with different forms of money. The earliest form of money were physical commodities, such as corn, salt or gold, whose values were well known. Because of the problems of visibility and portability, gold and silver coins became the most popular form of money in the 1800s. With the development of economy and stable governments, gold and silver coins were traded to tokens, such as paper notes. The paper notes, today known as cash, have no real value, and their worth only comes from the governments' declarations. (O'Mahony, Peirce & Tewari 2001, p.5-6.)

1.3.1 Traditional payment methods

The traditional payment methods are cash, check and payment cards. Cash payment is the most used payment method, because of its simplicity and transferability. Transaction is also made without any additional costs, making it very attractive payment method in low value transactions. Cash also leaves no trails. Through the development of automated teller machines (ATM), the popularity of cash payments has never been truly challenged. However, cash does have its faults. Every note costs to be printed, distributed, stored and protected from thefts, and all of these costs are eventually passed on the cash user. (O'Mahony et al. 2001, p.6-7.)

Consumer can also pay through banks. When both parties have their money in a bank, there is no need for parties to withdraw cash and the other one to deposit it again. This is where checks were created in order for consumers to be able to pay directly through banks. Paying through banks was also possible with credit and debit transfers in Automated Clearing Houses. The procedure was similar to checks, but the payment instructions were given in an electronic form. (O'Mahony et al. 2001, p.7, 10.)

The idea of payment cards ascended in 1915. The first payment cards were known as "shoppers' plates" that were created in certain hotels and department stores in the U.S. In 1947, the first bank cards were created by Flatbush National Bank, and in 1950, Diners Club created a first "travel and entertainment" charge card, which was then followed by the American Express card in the 1958. Currently, the dominating card companies in the world are Visa International and MasterCard. After the development of these two card companies, different payment options introduced various payment card schemes, such as credit cards, debit cards, charge cards and travel and entertainment cards. Charge cards are similar to credit cards, with the exception of having no spending limit and that the entire bill must be paid at the end of the month. Moreover, the travel and

entertainment cards are special cards for airline, hotels, restaurants, car rental companies or some retail outlets. (O'Mahony et al. 2001, p.12, 14.)

1.3.2 Online payment methods

The idea of online payment methods is not new. In 1970s and 80s few payment schemes were actually created that allowed the consumer to pay electronically. However, these payment schemes were never popular, because only few people had access to these networks. The creation of Internet, however, changed this situation and online payment methods became very attractive to consumers. Especially in late 90s and early 2000, when the Internet access began to grow rapidly, these methods became more popular. (O'Mahony et al. 2001, p.1-2.)

The first focus of e-commerce was to sell computers, soft wares, books and music containing compact discs (CDs) to consumers. In 1999 business to business (B2B) e-commerce also started to form. In the beginning, both types of e-commerce were carried out online, however, the payment was still taken offline. The first online payment method was created, when business to consumers (B2C) merchants discovered they could collect credit card details in an online form. (O'Mahony et al. 2001, p.3.)

Online payments can be divided in eight categories: credit card payments, automated clearing houses (ACH) and bank payments, payment aggregators, credit-term providers, cash-alternative providers, advertisings/promotional providers, mobile payment providers and invoicing payment providers. Credit card payment is still the most popular online payment method. If an online store does not include credit card payments into their payment options, they can only capture around 15% of all potential sales. Other payment options than credit cards are called alternative payment methods. (Montague 2010, p.3-4.)

ACH is an electronic network that processes both credit and debit transactions. Such providers can either use a push or pull payment methods. A push method allows the consumer to pay online without giving bank account or credit card information. This increases the feeling of safety, because the required information amount is very low. A pull method requires the consumer to save his or her bank account information online, and once a purchase is made, the online store is able to pull the funds from the respective bank account. (Montague 2010, p.9, 12.)

Payment aggregators are service providers that provide a surface where online stores can process their transactions. Payment aggregators can either hold credit card information or store money in an account. The most popular payment aggregators are for example Google Check-out, PayPal, AlertPay and Amazon Payments. This payment method is the major competitor of credit card payments. (Montague 2010, p.13-14.)

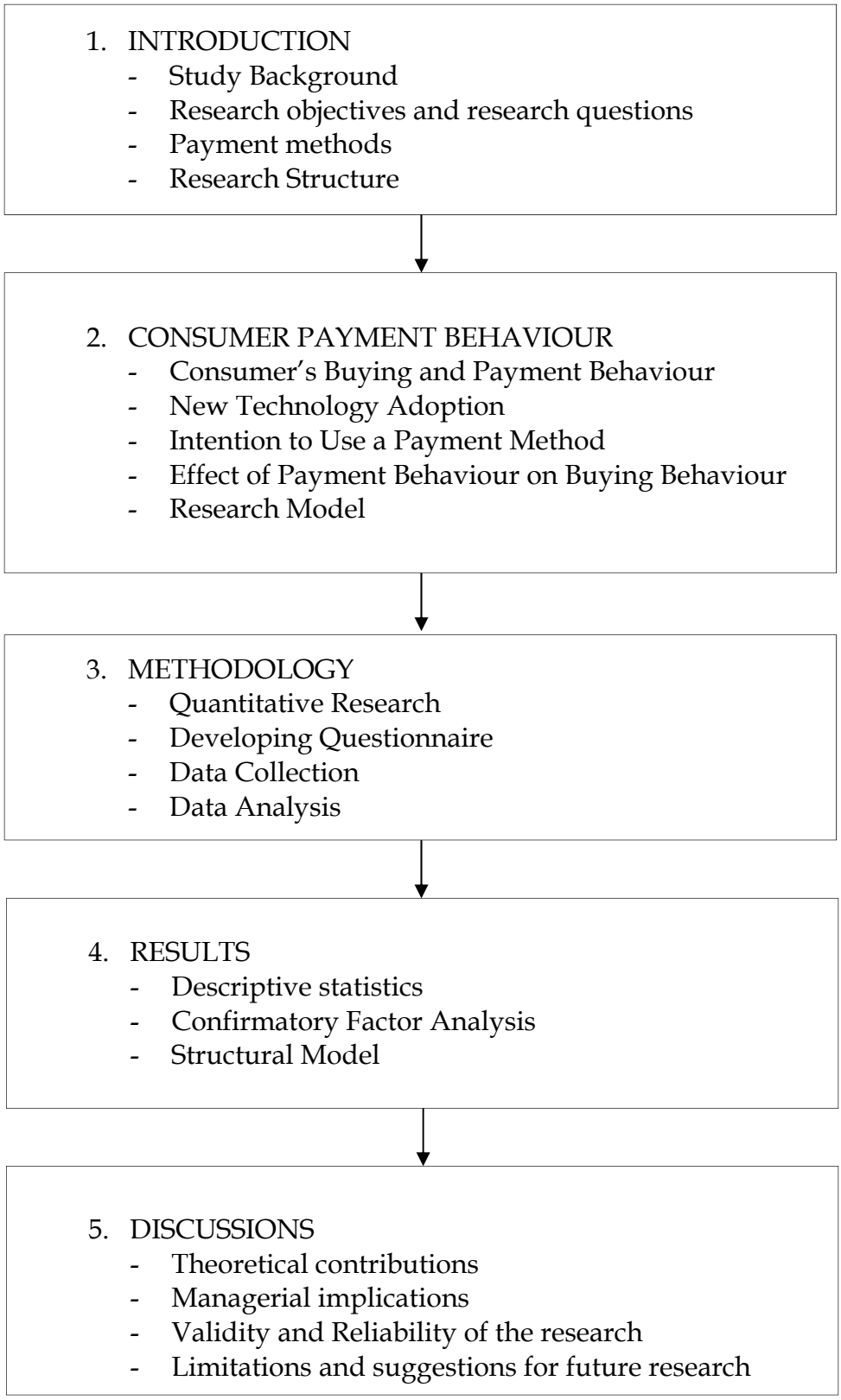
Credit term providers prolong credit to consumers online. This payment method allows consumers to purchase online without providing card or bank account information to merchants. Examples of these kinds of online payment methods are Bill Me Later, Cred-Ex and PayPal's PayLater. While cash alternative payments, such as Alipay, American Express and PayPal, are not very popular

in USA or Europe, they are the dominant payment option in developing countries. Advertising alternative payments use advertisements in their services. The most popular payment methods in this group are TrialPay and Offerpal Media. Mobile payments are also alternative payment methods that allow consumers to pay by using their mobile phones. All the major online payment services have utilized mobile phones; banks provide online banking and PayPal, Amazon and Google Checkout have created their own mobile payment services. Invoice services are payment providers that send an invoice to consumers on behalf of the online stores. However, the online stores can also invoice consumers themselves. Examples of invoice service providers are BillMyClients, Citrus Online billing and Freshbooks. (Montague 2010, p.15-18, 21-23.)

The use of alternative payment methods is driven by cost, security and ease of use (Montague 2010, 7p.). According to Yu, His and Kuo (2002) other important factors influencing payment choice are system's ability to adapt to changing needs, and effectiveness and compatibility among other payment methods. From consumer's perspective, security and accuracy are critical reasons when choosing an online payment method. Online payment methods differ in the number of steps consumers need to complete, in the type of information consumers need to give and in the type of information consumers need to confirm to complete the purchase. From a company's perspective, offering several payment methods can also provide convenience to consumers and, therefore, increases the probability of a purchase. From a consumer's perspective, different payment methods do offer choices, but it also affects consumer's buying behaviour. (Dutta et al. 2003.)

However, there are risks for online retail stores when adopting alternative payment methods. The major threat is that the payment method will die because of the lack of adoption. Because of this risk, most merchants consider only the most popular players; ACH, PayPal, Amazon and Google Check-out. Moreover, choosing the best payment method needs to be evaluated through regional support, consumer preference, customer base and return on investment. (Montague 2010, p.4.)

1.4 Research structure



2 CONSUMER PAYMENT BEHAVIOUR

Pricing research has mainly been focused on in what price marketers should sell their products and services. However, in the recent years the studies in this field have shifted towards understanding how, when, where and in what form marketers should charge their prices. (Patrick & Park 2006.) This chapter includes shortly the current data of consumers' payment choices and how consumers' characteristics and the characteristics of payment methods affect how consumers choose between payment methods. Thirdly this chapter will familiarize two fundamental theories of consumer technology adoption and further deepen the knowledge of the variables affecting payment choice, followed by a chapter of how payment choice affects buying behaviour. At the end of the theory section theoretical model is included.

Most of the surveys focusing on the consumer payment choice are conducted in the USA. Some of them are presented in this chapter. The surveys are collected between 2008 and 2013. The reason for including also old data from 2008, is to represent how payment choices have changed in respectively short amount of time.

The most common payment methods can be divided into three main groups: 1. paper instruments, including cash, check, money order and traveller checks, 2. payment cards, including debit, credit and prepaid cards, and 3. online payment methods, such as online banking bill payments and bank account number payments. The most of the purchases (64.1%) in USA were made person-to-person in 2009, and cash was the most popular payment method (40.5% of all payments), followed by debit card (32.0%). The third popular payment form was bill payment with the percentage of 28.1 of all consumer payments in 2009. Online payments for purchases (not including bills) had only small portion of all consumer purchases (7.8%). In online purchases, the debit card was the most used payment method (36.0%). Consumers can also use payment services that are provided by other companies than banks. Examples of such payment services are PayPal and Google Check-out. According to the survey of consumer payment choice in the USA in 2009, 30% of consumers had such a payment account. (Foster, Meijer, Schuh & Zebek 2011.)

Cohen and Rysman (2013) exploited a data of households' grocery purchases. The data were collected over three years (from 2008 to 2011). They found that even though shift to digital payments are found to be superior in cost, tracking and security, the shift to these payment methods is still incomplete. They believed households concentrate on one or two payment methods and rarely change their payment behaviour. They called this behaviour "state dependence", meaning that once a person makes a choice, it is likely to make the same choice again.

The most recent data found on consumers' payment choices were collected by Wang and Wolman in 2013 and published in 2016. According to them, there is a significant increase in card payment methods and decrease in paper methods,

such as cash and checks. They believe consumer payment choice is affected by consumer's cash threshold, day of the week or a month and long-term trends. Consumer's cash threshold is a transaction size below which a consumer usually pays with cash and above uses another non-cash method. They found that transactions between $1 and $1.99, 90% of transactions are paid by cash, whereas transactions of $50 and above only 42% are paid by cash. Foster et al. (2011) had similar results. They presented that transaction size negatively affects the likelihood of cash payments and positively affects the likelihood of card payments. Therefore, the transaction size can be seen an important determinant of consumer's payment choice. Wakamori and Welte (2017) agree with these results. They also found that cash is the dominant payment method, especially in small-value transactions. In their study they created a simulation where merchants accepted all payment methods (cash, credit and debit cards) in order to study if the popularity of cash usage is a result of consumers' preferences or if the cash is more accepted method for payment in retail stores. If credit and debit cards were accepted everywhere, cash usage would decrease. However, this decrease would only be 8 percentage points, implicating that consumers do prefer cash over cards when the value of the transaction is low. (Wakamori & Welte 2017.) Consumers have more control over their spending while paying with cash, and because of that cash is still widely used payment method despite of the societies desire to reduce cash payments. (Runnemark, Hedman & Xiao 2015.)

Another important variable affecting consumer payment choice is location. For example a higher robbery rate in some locations will reduce the use of cash. Respectively, a higher level of banks and competition will increase the use of cash, because of the cost of obtaining cash will decrease. However, the longer term trends show a decline in the use of cash and increase of card payment methods. This can be explained by technological progress in card payments and through changes in consumer perceptions of debit and credit cards. (Wang & Wolman 2016.)

As a conclusion, from traditional payment methods cash is the most popular payment method followed by card payments. Consumers also clearly prefer to pay small payments with cash and more expansive ones with a card. Additionally, areas where it is easy to obtain cash, card usage is less popular. However, this does not yet explain why and how consumers choose the payment methods. The factors influencing the choice of payment methods will be explained more thoroughly in the next chapter.

2.1 The choice of a payment method

Most of the studies about consumer payment behaviour try to understand how consumers choose between different payment methods. One of the earliest studies about consumer's payment behaviour was written by Hirschman in 1979. Her objective was to prove that consumers do differentiate between various

paying systems and they also evaluate payment methods differently. According to her, the consumers' choices between different payment methods are based on payment system functioning, familiarity, situational factors, personal factors, place of purchase and the purchases' characteristics. Consumers may go through a hierarchical decision process, where they eliminate alternatives based on their availability or acceptability in the situation. If the consumer fails to find an acceptable payment method, he or she might abandon the attempt to purchase. (Hirschman 1979.) However, not all share Hirschman's view that consumers' choices of payment methods are strategic. According to Prelec and Loewenstein (1998) the decision is mostly accidental or influenced by convenience, acceptability, accessibility or habit.

Nonetheless, most of the previous studies agree with Hirschman's findings. For example, especially the debit and credit card usage and the underlying factors influencing consumers to choose between them were studies by Foscht et al. (2010). According to their findings, consumer's preference for a payment method is influenced by consumer's characteristics and the features of the payment methods. Schuh and Stavins (2012), however, believe that the characteristics of payment methods affect online purchase behaviour more strongly than consumers' characteristics. Yet, other researchers have not come to the same conclusions and suggest that the consumers' payment preferences are strongly impacted by consumers' attitudes, income- and educational levels (Jonker 2007; Crow & Staten 1999; Borzekowsi, Elizabeth & Shaista 2008). The previous findings about the effect of consumer related characteristics and features of payment methods on payment method selection are introduced in the chapters below. The essential findings are presented in the Table 1.

Table 1: The choice of a payment method

Consumer-related characteristics:	**References:**
Attitudes	Foscht et al. (2010), See-To et al. (2014), Khan et al. (2015).
Demographics	Schuh & Stavins (2012), Jonker (2007), Carow & Staten (1999), Borzekowski et al. (2008).
Risk perception	Szimgl & Foxall (1998), Sheth (1979), Foxall (1994), Xu et al. (2017), Kim et al. (2008), Kim et al. (2012).
Previous experience	He & Mykytyn (2008)
Payment methods' features:	
Recordkeeping	Schuh & Stavins (2012), Jonker (2005)
Cost	Schuh & Stavins (2012)
Convenience	Schuh & Stavins (2012), See-To et al. (2014), Jonker (2005), He & Mykytyn (2008)
Security	Schuh a& Stavins (2012), See-To et al. (2014), Jonker (2005), He & Mykytyn (2008)
Ease of use	See-To et al. (2014), Jonker (2005).
Transaction time	Jonker (2005)

2.1.1 Consumer related characteristics

As stated above, Foscht et al. (2010) found that consumers' own characteristics affect the way consumers decide between payment methods. They found that consumers' own expectations towards the payment method affect the decision. They indicate that positive expectations lead to customer satisfaction and increase the likelihood for a consumer to use the payment method again and the intention to recommend it. See-To et al. (2014) also agree that consumers' attitudes have an effect on consumers' intentions to use a payment method. According to Khan et al. (2015), especially positive emotions predict the preferences of payment methods and spending behaviour.

Schuh and Stavins (2012) concentrated on how consumer demographics might explain the way consumers decide between different payment methods and what aspects do they value in them. For example, according to their questionnaires results, low-income and African-American consumers are less likely to have a bank account. Check usage is more common among older, higher-income or more educated consumers, married or widowed consumers or caucasian or Asian respondents. Similarly, credit cards are more popular among older, educated, higher income, married or widowed consumers. Additionally, men have a higher credit card adoption rate than women. In contrary to credit cards, debit cards are more common among younger than older consumers. However, married consumers are most likely to have a debit card than any other groups. The adoption of debit cards is smallest among the consumers with the lowest level of education. In other education levels there is no significant difference in debit card adoption. Other studies have also noticed, that demographical factors explain the usage of payment method. Jonker (2007) agrees that consumers with a higher income or educational levels use more "modern" payment methods. Lower income consumers have a bigger need to track their expenses, which may explain their use of "less modern" payment methods. Carow and Staten (1999) also found that consumers with less education, lower income, or are middle -aged are more likely to pay with cash. Respectively, young and educated consumers are more likely to prefer credit and debit cards. Borzekowski et al. (2008) agree with Carows and Statens findings that young educated consumers are more likely to use credit cards than less educated consumers, but they do add, that low income consumers are as likely to use debit cards as high income consumers.

However, six years later, in the study of See-To et al. (2014), credit cards are clearly preferred payment method in online and offline contexts regardless of the consumers' income levels. They studied how consumers' income levels moderate the usage of online and offline payment methods. They believe it is important to understand the consumer's payment behaviour in order to prevent the cart abandonment. They concentrated on how consumer's attitude towards various payment methods affect the intention to use them. According to their findings credit cards are preferred payment type by consumers with both higher and lower income in offline and online contexts. Also debit cards are preferred over

e-cash, however, e-cash is preferred over debit cards if the consumer's perceived utilities are very high.

Szimgl and Foxall (1998) decided to take a different approach to studying consumer's payment method choice process with the objective to understand the reasons behind adopting or rejecting new payment methods. One reason why cash payment is still the most popular payment method might result of consumer's "innovation resistance". This can be an outcome of consumer's characteristics or situational characteristics or both. The innovation resistance can result in innovation rejection, postponement or opposition. Postponing an adoption is usually caused by a situational factor, such as financial status. Opposition, however, usually results in rejection due to habit, situational factors or even cognitive style, after the consumer first tries the new innovation. (Szmigin & Foxall 1998.) According to Sheth (1979) the resistors are usually more rational consumers and that the majority of consumers belong to this group. Only relatively small amount of consumers seek change and will adopt new innovations easily. According to Foxall (1994), resistors are less likely to test new products or brands, which results in lack of new experiences and further into unwillingness to try new things. Szmigin and Foxall (1998) studied the innovation resistance in the case of payment methods. They found out that consumers are prone to resist switching if they have no desire or reason to change. In their study they interviewed credit card users, who had rejected debit cards. Those consumers did not find any new value in the debit cards because they were already using their credit cards as debit cards and, hence, had rejected the debit payment method.

When paying online, consumers are not only able to decide between different payment methods, but also between the timing of the payment. Online purchases can be paid through two different schemes: pay-to-order or pay-on-delivery. In pay-to-order scheme customers pay at the moment the order is made. Controversially, in pay-on-delivery scheme consumers pay after they have received their order. Pay-to-order scheme is the most efficient payment scheme for online retailers and it is also the most used scheme. However, pay-on-delivery scheme is more attractive for the customer, since it reduces concerns of returns, refunds and payment security issues. This is important factor, since most of the customer complaints consider difficulties in making returns and obtaining refunds. Consumers, who choose to purchase online through pay-on-delivery are usually risk averse and uncertain about online shopping. Therefore, online retailers should offer pay-on-delivery scheme if there are potential customers who are reluctant to shop online because of its risk elements. The pricing between these two schemes is also important to be noted. The retail prices in online shops using "pay-on-delivery" –scheme should be lower than those in "pay-to-order"-scheme. This is because, consumers who choose to purchase online through pay-on-delivery are usually risk averse and are attracted to pay-on-delivery scheme because of the possibility to also reject the product without any fees. Additionally, the return rates are greater if the prices are higher, meaning the online retailers

should sell their products with lower prices when offering pay-on-delivery – scheme in order to reduce the return rates. (Xu et al. 2017.)

Perceived risk is therefore also an important factor in payment behaviour. Kim et al. (2008) found that perceived risk negatively affects consumers' buying intentions, and trust, controversially, positively affects these intentions. Kim, Xu and Gupta (2012) agree that perceived risk is important in purchasing decisions. They found that perceived trust is more important to both existing and potential customers in online environment than the perceived price.

Consumer's internet experience also affects his or her online payment adoption rate. Online shopping, online banking, online investing and online payments for an internet service are four different e-commerce activities. If a consumers decides to adopt one of these four activities, he or she also tends to adopt the rest of them. Therefore, e-commerce background also affects consumer's tendency to adopt an online payment method. (He & Mykytyn 2008.)

2.1.2 Characteristics of payment methods

The previously introduced studies on payment behaviour believe consumer's decision making between payment methods is affected by consumer's demographics or attitude, habits or risk perception. However, payment's own features and characteristics also affect the usage of the payment method (Foscht et al. 2010).

Jonker (2005) states that safe and efficient payment methods are a necessity to financially stable and economically prosper country, because well-functioning payment methods are the basis for the exchange of goods and services, and therefore, also the foundation of economy. She conducted a survey to study the reasons why consumers prefer payment methods over others. In her results, the most mentioned reason for using a particular payment method was the transaction time. Additionally, consumers, who preferred to pay by cash, stated the easiness to supervise their payments and the wide acceptance of cash as their main reasons for choosing that instrument. Consumers, who favoured the debit cards, mentioned the lack of cash and the wish to pay exact amounts as their motives. Credit cards were also mostly used because of the lack of cash, but also because of the wish to postpone payments. Schuh and Stavins (2012) had very similar observations, and as a conclusion, safety, speed, cost, ease of use and recordkeeping were mostly mentioned aspects to determine how often consumers use different payment methods in both studies. They found that debit card is perceived as the safest, fastest, and easiest to use of payment methods. Credit card is also found to be safe, fast and easy to use, however, it is also perceived as the most expensive payment method. Cash is the least safe and not very good for record keeping. However, it is found to be the cheapest payment method. (Jonker 2005; Schuh and Stavins 2012.) Whether a payment method is perceived fast or slow, depends also on the payment amount. For example cash is a fast payment method for a small transactions, but slow for large ones. Credit and debit cards are always fast, independent of the transaction amount. However, they require an authentication in either written form or with a personal

identification number (PIN), what consumer might find annoying. (Rysman 2009.) Nowadays, paying with a debit and credit cards does not require identification PIN or signature. However, this concerns only purchases where the transaction amount is small, and more expensive purchases still require an identification.

Because of the heterogeneity of consumers, there are not many studies about which aspect of the payment methods own features consumers find most important. Though, See-To et al. (2014) found that the lower the product or service cost is, the more convenience of the payment method will matter to all consumers. This is because otherwise the total transaction cost would increase. However, even if the payment method is fast and convenient theoretically, not all consumers may perceive it that way. For example, Borzekowski et al. (2008) studied why debit card users choose the debit card and why the non-users in contrast do not. In their results, 88% of debit card users state that the convenience is the most common reason why they choose that payment method. Other reasons, such as time, tracking or security are the most important to less than 10% of the respondents. However, to the non-users tracking is the most important reason not to use a debit card (40%). Overspending might, therefore, be an issue when using debit cards, because consumer has to set daily spending limits mentally, whereas when paying with cash, the consumer can withdraw only the amount of money he or she can spent in one day (Hernandez, Jonker & Kosse 2017). Schuh and Stavins (2012) also found that recordkeeping is important for an adoption of a new payment method. In addition, they found that security is especially important to consumers for continuing to use a payment method. Cost of a payment method is important for both, for continuing to use and to adopt a new payment method. Therefore, consumers have different motivators to start or continue to use payment methods.

Consumers' payment choices can also be affected by card reward programs. The existence of rewards on credit and debit cards increases the likelihood of adopting these payment methods. (Ching & Hayashi 2010.) However, according to Rysman (2009), the incentives to choose one payment method over another are not very convincing, and for an average consumer a full year of credit or debit card rewards are not very valuable.

When studying specifically online payment methods, it has been found that their adoption is also affected by payment methods' characteristics. There are several advantages and disadvantages of online payment methods. Advantages are for example efficiency, convenience and flexibility. Of all online payment methods, credit cards are most preferred, because they are most efficient and well protected. Online payment methods are convenient, because bills can be paid at any place or time. Online payments are also very flexible because consumers can set automatic recurring payments. They also have a control over the date and the amount to be charged. However, there are also several disadvantages of online payment methods. These are for example privacy and security issues. Paying online involves emitting personal information that service providers can misuse purposely or accidentally. Consumers also often fear to pay online, because they

believe there is a great risk their financial account information can fall into wrong hands. Other important factors affecting adoption of online payment methods are the effectiveness of consumers' computer systems, speed of the internet and the level of protection against viruses. (He & Mykytyn 2008.)

However, not all researchers believe payment methods' characteristics have a significant effect on payment method choice. For example, Rysman (2009) believes that characteristic differences between payment methods are not remarkable; transaction times are measured in seconds, and the security concerns do not differ between payment methods drastically. Therefore, he believes that the characteristics of payment methods cannot dramatically affect consumers' payment choices.

The majority of previous studies seem to agree on the fact that consumers' characteristics, such as gender, age, educational level, income level and marital status do explain the consumers' payment method decision process. Some authors have also emphasized the importance of consumers' attitudes and risk perception in the selection process. Characteristics of payment methods, such as convenience, easiness to use and security are also found to be important influencers. However, as clearly noticed above, the researchers do not agree on whether the consumers' characteristics or payment methods' characteristics play a bigger role in explaining the selection between payment methods.

2.2 Adoption of new technologies

This chapter includes two important theories explaining consumers' adoption of new technologies; technology acceptance model and innovation diffusion theory. They are both dominant theories in explaining and predicting innovation use and adoption. Paying online is a rather new payment environment and online payment methods are constantly evolving. Therefore, it is important to understand how consumers react to new technology innovations and how do they adopt them.

This chapter also introduces the Prospect Theory, which explains the consumers' decision making under risk, because, as noted above, risk perception is an important factor influencing consumer buying behaviour and payment behaviour in both online and offline contexts. It is also important factor affecting technology adoption.

2.2.1 Technology Acceptance Model

Davis (1989) created the technology acceptance model in order to offer better means for measuring, predicting and explaining use of technology. His aim was to provide a model that can be used to asses future user demand for new innovations. Models that were used before, were subjective, nor did they correlate well with usage behaviour. He studied the perceived usefulness, ease of use and user acceptance of information technology. His purpose was to

validate these two variables, because they were already believed to be essential determinants in user acceptance of new innovations. He created a multi-item measurement scales that he then validated through correlation and regression analyses in two separate studies.

People are believed to incorporate applications that they consider will help them improve their performance. However, even if consumers believe an application to be useful, it also needs to be perceived as easy to use, otherwise people will find performance benefits to be outweighed. Davis defines the term of perceived usefulness and perceived ease of use as follows: (Davis 1989.)

> Perceived usefulness…"the degree to which a person believes that using a particular system would enhance his or her job performance."

> Perceived ease of use…"the degree to which a person believes that using a particular system would be free of effort."

Davis (1989) created initially 6 scale items for both perceived usefulness and perceived ease of use through a several step process. The scale items for usefulness are following: 1. work more quickly, 2. job performance, 3. increase productivity, 4. effectiveness, 5. makes job easier and 6. useful. For the ease of use, the scale items are: 1. easy to learn, 2. controllable, 3. clear and understandable, 4. flexible, 5. easy to become skilful and 6. easy to use. The items of perceived usefulness were able to be divided into three main groups: job effectiveness, productivity and time saving, and to the importance to one's job. The scales of perceived ease of use were also divided into three clusters: physical effort, mental effort and the ease of learning.

He found that perceived usefulness and perceived ease of use were significantly correlated with previous and expected future usage. However, usefulness had greater correlation levels as did the perceived ease of use. The new scales were found to be significant with determining perceived usefulness and perceived ease of use. The convergent and discriminal validity tests also supported the new scales. (Davis 1989.)

2.2.2 Innovation Diffusion Theory

Innovation Diffusion Theory is a model of user adoption that explains the process of innovation decision procedure. It also introduces factors that influence adapting and predicts the probability of an innovation to be adopted. (Chen 2008.)

> Innovation is an idea, practice, or an object perceived as new by an individual or other unit of adoption. (Rogers 2010, p. 37).

Rogers (2010, p. 37) defines the term of diffusion as following:

> Diffusion is the process by which an innovation is communicated trough certain channels over time among the members of a social system. Diffusion is a special type of communication concerned with the spread of messages that are perceived as new ideal.

The Diffusion process describes how individual starts with a knowledge of an innovation and either adopts or rejects the new idea. The process has five stages: 1. knowledge (exposure to the innovation), 2. persuasion (forming an attitude towards the innovation), 3. decision (adopting or rejecting the innovation), 4. implementation (using the innovation), and 5. confirmation (seeking reinforcement for the decision). Diffusion process involves some degree of uncertainty and perceived risk. However, an individual can diminish the feeling of uncertainty through acquiring information. (Rogers 2010, p. 37, 41)

Innovations can be divided into five attributes that predict the adoption of the innovation. Firstly, perceived attributes affect the adoption rate of an innovation. Perceived attributes can be further divided into: 1. relative advantage, 2. compatibility, 3. complexity, 4. trial ability, and 5. observability. The relative advantage can be defined as the degree to which an innovation is observed as better than the idea it follows. The consistency of the innovation with the existing values, past experiences and needs is the definition of compatibility. Complexity is the perceived difficulty to use an innovation. Trial ability concludes the factors that allow the innovation to be tested on a restricted basis. Observability explains the results of an innovation and their visibility to others. (Rogers 2010, p. 42-43.) These factors were found to explain 49-87% of the adoption rate (Rogers 2010, in Chen 2008).

Secondly, the type of innovation-decision (optional, collective or authority) affects the adoption rate. Optional innovation decision is made alone, independent from others. Collective innovation decision is made together with other members in a system. Authority innovation decision is made by few members in a system and the decision is forwarded through power to other members. Third attribute is the nature of communication channels that diffuse the innovation in the process. The channels can be mass media, such as TV or radio, or interpersonal, such as information exchange between friends. Mass media channel is more important to provide knowledge of the innovation and the most important channel for earlier adopters. Interpersonal channel is the main persuading channel and important for late adopters. Forth attribute is the nature of social system, and fifth the extent of change agents' efforts to diffuse the innovation. However, the most research is concentrated on the rate of adoption through five perceived attributes of innovations that were presented above. (Rogers 2010, p. 42-43.)

2.2.3 Prospect Theory – Decision Making under Risk

Prospect theory is a model of decision making under risk, and the theory is widely accepted as the best available explanation of how people evaluate risk (Barberies 2013). The theory is included in this study, because risk perception is an important factor influencing consumer decision making. It is also probably quite obvious to all that risk is associated with paying. Therefore, it is important to understand how people behave in risky situations. The prospect theory was first presented in 1979 by two psychologists, Daniel Kahneman and Amos Tversky, and modified in 1992 as a theory of "cumulative prospect theory", with

the aim to demonstrate how people systematically violate the expected utility theory, that was the current dominating model of decision making under risk. The model of Expected utility theory was presented by Neumann and Morgenstern in 1944. The theory was however criticised, because it was not able to explain customer decision making under uncertain conditions (Kahneman & Tversky 1979).

The prospect theory consists of four elements: 1. reference dependence, 2. loss aversion, 3. diminishing sensitivity, and 4. probability weighting. Reference dependence means people create value from gains and losses, and they derive it from a reference point. (Kahneman & Tversky 1979; Tversky & Kahneman 1992.) In other words, the perceived value is the sum of gains and losses that every consumer perceives differently. Loss aversion explains how people are more sensitive to losses than to gains of same extent. Diminishing sensitivity describes how people tend to be risk averse over reasonable probability gains (Kahneman & Tversky 1979). Barberis (2013) has a good example how people usually prefer an assured gain of $500 to a 50% chance of winning $1000, however, over losses people seem to be more risk seeking, preferring a 50% chance of losing $1000 over losing $500 for sure.

The final component, probability weighting, explains how people do not act upon objective probabilities, but rather tend to overweight low probabilities and underweight high probabilities. A good examples of over- and underweighting probabilities are lotteries and insurances. Consumers overweight the probabilities of, for example, winning in a lottery, preferring therefore a certain loss of for example $5, for an objective probability of 0.001 chance of winning. However, in consumers mind, this probability is overweighed, making it seem much more appealing and likely. (Tversky & Kahneman 1992; Barberies 2013.) Because people put more weight on situations with positive outcomes, people perceive these situations more certain than they actually are. Because of this certainty-effect, people tend to be more risk seeking when deciding in situations that include possible gains. Additionally, situations with negative outcomes are underweighted, making them seem less appealing than they truly are. (Kahneman & Tversky 1979.)

Even though prospect theory is fore and foremost a model of decision making under risk, some authors argue the model can also be used in riskless decision making. For example Thaler (1980) has introduced a term of Endowment Effect, which refers to willingness to accept (WTA) and willingness to pay (WTP) gaps. Kahneman, Knetsch and Thaler (1990) studied the WTA and WTP gaps in several experiments. In each experiment they divided half of the subjects into sellers, who were gifted with an item, whereas other half was given the role of a potential buyer. In their results, participants viewed the given item as a gain, and exchanging the given item as a loss. Therefore, participants were demanding much more money in order to exchange the given item, than the other half of the participants were willing to pay. Consequently, since people are, according to the prospect theory, more sensitive to losses, the exchange was unattractive. In short, the Endowment effect clarifies that consumers instantly assign more value to

products such as pens, mugs or chocolate bars, when the object is given to the consumer. Therefore, consumers' preferences clearly depend on their reference position.

To summarise how consumers adopt new innovations, Rogers found that consumers obviously have to be aware of these new ideas in order to use them. They also need to feel that the new idea fits in their needs and lifestyles and it has to be perceived as better than its predecessor. Additionally both Rogers and Davis found that consumers need to find new ideas useful and easy to use in order for them to consider implementing the ideas into their habits. Trying new innovations also needs to be found easy and not restricted. Rogers also added, that new innovation adoption is affected by uncertainty and risk perception. The feeling of uncertainty can be diminished through gaining information, but it also depends on the reference position, since not all consumers behave similarly under uncertainty. Some consumers are, for example, more risk seeking than others, making uncertain situations look rather appealing to them.

2.3 Intention to use a payment method

This chapter introduces the factors influencing consumers' intentions to use online payment methods. The hypotheses are also included. The main influencers for the factors chosen for this research were Chen's (2008) model of consumer acceptance of mobile payments and Davis' (1989) technology acceptance model. The information about the chosen factors is further deepened and the previous research is introduced.

Chen (2008) proposed a research model of consumer's intention to use mobile payments. According to her, consumer's intention to use a mobile payment is affected by perceived ease of use, perceived usefulness, perceived risk and compatibility. Perceived usefulness is further affected by perceived transaction convenience and perceived transaction speed. Perceived risk is affected by security and privacy concerns. Her research model is an extension of Technology Acceptance Model and Innovation Diffusion Theory. The theories are the most dominant in predicting innovation use and adoption, as already mentioned in the previous chapter. In her proposed model, the key variables of both theories are included; the perceived ease of use, perceived usefulness and compatibility. The perceived risk variable is also included because of the uncertainty in the mobile payment environment. The author organized interviews with consumers and payment industry executives to further distinguish additional factors. From the interviews additional factors such as transaction convenience and speed, security and privacy concerns emerged.

In the results of Chen's (2008) study, the four factors determine the consumers' acceptance of mobile payments. Compatibility was found to have the strongest effect on adoption rate. This proposes, that in order for mobile payments to be accepted, the payment needs to be designed to complement the behaviour and lifestyle of the consumer. The new payment systems should not

require additional equipment or training. The perceived usefulness and perceived ease of use are found to influence the acceptance of innovations in many previous studies. Therefore, the author's results are not surprising. However, she did add the transaction speed and convenience into the model, and in the results she found that these two factors do positively affect the perceived usefulness. The convenience factor was found to be more important than perceived speed. The perceived risk was found to negatively affect the mobile payment adoption. Security issues, such as identity theft and hacking, create environmental risks that are main concerns of consumers. Privacy concerns include the consumers' concerns of improper and unauthorized use of consumer information. In her results 48% of respondents thought mobile payments would increase the privacy risk.

In the sections below, the factors that were found to be most important in explaining the intention to use payment methods in previous studies are further discussed. These factors will also be the explanatory factors in this study. These are consumers' attributes such as consumers' attitudes (See-To et al. 2014; Foscht et al. 2010; Khan et al. 2015) and perceived risk (Kim et al. 2008; Kim et al. 2012; Chen 2008) and attributes of payment methods, such as ease of use (Foscht et al. 2010; Davis 1989; Chen 2008) and usefulness (Chen 2008; Davis 1989). As mentioned before, there is disagreement between researchers whether consumers' characteristics or characteristics of payment methods affect payment choice more. However, Chen (2008) did find that payment methods' factors affected the mobile payment choice more than consumers' own. The first hypothesis is as following:

H1: The Perceived Usefulness and Perceived Ease of Use will explain online payment usage intention more than Perceived Risk or Attitude.

2.3.1 Attitude

When studying decision making, the main goal is to be able to predict the behaviour (Pieters 1988). According to the theory of planned behaviour, the behaviour is affected by attitude, and, therefore, attitude can explain and predict consumers' actions. It refers whether a person has a positive or negative evaluation of the behaviour. The theory of planned behaviour also includes subjective norm and perceived behavioural control in the theory. (Ajzen 1991.) However, this study will only be concentrating on the attitude aspect in this paper. Attitude can be defined as follows (Pieters 1988, p. 151):

> "Attitude is a positive or negative feeling towards a given class of stimuli."

According to expectancy-value model of attitudes, they cultivate from peoples' beliefs of the object. Thus, people create attitudes towards behaviour through linking that behaviour into outcomes, which are automatically perceived either positively or negatively. Consequently, people tend to favour and form positive attitudes towards such behaviours that have positive outcomes and,

controversially, form negative attitudes towards behaviours that have negative outcomes in peoples' minds. (Fishbein and Ajzen 1975 in Pieters 1988.) There are, however, some inconsistencies in results when studying the relationship between attitudes and behaviour (Pieters 1988). Aaccording to Ajzen (1991) these differences might emerge from time gaps between attitude and behaviour measurements. Therefore, it is important to take into account time gaps, because attitudes appear on a visceral surface and change over time. Attitudes are learned feelings that arise towards a given stimuli and they can also differ in various contexts. (Ajzen and Fiscbein 1977; Pieters 1988.)

See-To et al. (2014) found that consumer's intention to use a payment method was affected by consumer's attitude. Positive attitudes towards a payment method increase the consumer's likelihood to use and recommend a payment method (Foscht et al. 2010). Attitudes can be influenced by the timing of a wealth transfer. Cash is a direct payment, where the wealth transfer occurs at the transaction. Credit card is a deferred payment, where the wealth transfer occurs after the transaction and debit card is a prepaid payment, where cash needs to be paid in advance in order to have balance on a card. According to the findings, credit cards were preferred payment type by consumers in offline and online contexts. Also debit cards were preferred over e-cash, however, e-cash was preferred over debit cards if the consumers' perceived utilities were very high. (See-To et al. 2014.) However, there are no general results whether consumers prefer pre- or post-payment. Rather the consumer's preference depends on things like product type (Patrick & Park 2006), needs (Khan et al. 2015) or whether the purchase situation is found to be pleasurable or not (Patrick & Park 2006).

Khan et al. (2015) also studied the consumers' perceptions of payment methods. In their research, their objective was to develop a theoretical concept of perceptions of payment methods, especially cash, credit and debit cards, and to show how consumers' cognitive and emotional associations with payment methods affect spending behaviour. According to their results, positive emotional associations towards credit cards is a predictor of the amount of owned credit cards, and that owning multiple credit cards affects money management. This means, consumers who owned multiple credit cards were actually better at managing their wealth than others. However, positive emotions towards cash and pleasure of owning money also regulates the spending behaviour. Consumers are likely to spend less if they enjoy owning money. According to Rysman (2009), the most associated problem with credit cards is that they indorse overspending. Therefore, debit cards may be preferred by consumers, who want to set up self-restraints. Consumers may create negative attitudes or even religious objections towards credit cards, resulting in avoiding such payment methods. Many consumers also believe that credit should only be used to pay for large, luxury items. Only current holdings, such as debit card or cash, should be used for regular purchases.

As a conclusion, attitudes can clearly affect the intention to use a payment method both positively and negatively. Positive expectations are for example

found to be linked to consumer satisfaction levels with payment methods (Foscht et al. 2010). The second hypothesis is as following:

H2: Consumer's attitude towards online payment method positively affects his or her intention to use the payment method.

2.3.2 Perceived Risk

In the next chapters the current knowledge of how consumers' risk perception affects buying behaviour and payment choice is introduced. However, the effect of risk perceptions on consumer decision making is described first. The first author to suggest consumer behaviour to be viewed as risk taking was Raymond Bauer in 1960. His objective was to explain consumer behaviour in forms of information seeking, brand loyalty, opinion leaders, reference groups and pre-purchase debates. (Bauer 1960 in Ho & Ng 1994.) According to Taylor (1974), the essential problem in consumer behaviour is decision making, because the outcome is unknown and consumer is forced to face uncertainty and risk. The decision making involves two characteristics of risk: uncertainty of outcomes and consequences. Consumers can reduce the perceived risk on outcomes through acquiring more information, and on consequences through reducing the amount of investment or how much is "at stake".

In a decision making situation, the risk can be inferred as a possible loss (Taylor 1974). According to Roselius (1971), the loss can be divided into four types: 1. ego loss, 2. hazard loss, 3. money loss and 4. time loss. Consumers are experiencing ego loss if they feel stupid after purchasing a product that turns out to be flawed. Hazard loss implies how some products can be dangerous to the health if they do not work as promised. Consumers can face money loss through replacing or repairing a product that turned out to be a failure. Additionally, consumer faces time loss when trying to replace or repair a disappointing product. According to Roselius' results, consumers associate different amounts of loss with different purchase situations and use various risk reduction strategies such as information acquisition, endorsements, relying on a previously used brand or on store image, or utilizing free samples or money-back guarantees.

2.3.2.1 Perceived risk and buying behaviour

Before explaining how perceived risk affects payment choice, the relationship between perceived risk and buying behaviour is introduced. Cox and Rich (1964) studied perceived risk in telephone shopping. Their data clearly indicates that consumers do perceive risk in telephone shopping. The risk perception is also a behavioural determinant, meaning consumers do not shop by phone, because they fear of being disappointed. Therefore, the higher the perceived risk is, the more consumers will avoid that kind of shopping situation, because they are unable to deal with the uncertainty. Spence, Engel and Blackwell (1970) studied the differences in perceived risk when ordering by mail and buying in a store. According to them, mail ordering can be considered as a more risky purchase

situation because of the lack of opportunity to test the products before making the purchase decision, or because of the difficulties to return the purchase. (Spence et al. 1970.) Online purchases include similar problems as mail ordering, therefore, the results can in some extent be expanded into online shopping context as well.

According to Kim et al. (2008) trust is particularly important in online shopping. As noted earlier, consumer's perceived risk affects negatively consumer's purchase intention and consumer's trust negatively affects the consumer's perceived risk of a transaction and positively affects purchasing intention. Furthermore perceived benefits positively affect purchase intention. They also found that privacy and security are important factors for consumers while purchasing online. Kim et al. (2012) also studied the importance of perceived trust in internet shopping. Their aim was to compare the effect of trust and price perception on internet shopping. Both are considered to be two important influencers in customer online purchasing decisions. They found that between both existing customers and potential customers, the perceived trust was more important when purchasing online than perceived price. However, perceived price was also important among existing customers, and influenced the purchasing decision more than among potential customers. Actually, the customers' price sensitivity increased with the conducted transactions.

2.3.2.2 Perceived risk and payment choice

Perceived risk is the degree the user expects the payment method to be risky (Chen 2008) and it is closely linked to payment choice. Security and privacy issues are an important feature for any payment method (Chen 2008). Security incidents, such as stealing of cards or identities, have increased with the number of payment transactions. Specific incidents do affect adopting and using cash, money orders, credit cards, stored value cards, bank account number payments and online banking bill payments. Therefore, trust has become a major concern for both consumers and payment method providers. (Kahn & Liñares-Zagarra 2016.) Additionally, according to Chen (2008), perceived risk is affected by privacy concerns. Consumers are especially concerned about the amount of personal information the companies require, about the protection of that information, the accuracy of their given data and about the usage of this private information.

Ho and Ng (1994) studied the customers' perceived risk of alternative payment methods and whether the amount of purchase influences the level of risk perception. They concluded the 1. physical, 2. performance, 3. psychological, 4. financial and 5. time-loss risks as the different risk dimensions in their study. The physical risk can be defined as potential loss of cards or potential injury if one is getting robbed. Losing cards can be inconvenient, however it does not necessarily cause financial loss, but a physical one. Performance risk includes a risk that a specific payment method cannot be used when needed, or the retailer asks additional charges in order to use this specific payment method. Psychological risk includes a risk in self-image.

According to Ho and Ng's (1994) results, cash, credit card or online payment systems do not cause a psychological risk. Therefore, consumers do not feel difference in self-image if using different payment methods. Consumers find online payment systems to carry the lowest physical risk, credit cards to be highest in perceived time loss risk, and cash to have the highest physical risk, but lowest performance risk. However, when considering the amount of a transaction, the physical, financial and time loss risks are significantly higher in high cash payments than when the transaction amount is low. In credit card and online payment systems the performance risk is higher if the purchase amount is small. The authors also divided the respondents into two groups: the users of online payment systems and non-users, in order to investigate if the overall perceived risk varied between these two groups. In the small transaction amounts, there were no significant differences in the risk perceptions between the two groups. However, the non-users did perceive a higher psychological risk, implicating that using online payment systems might influence their self-image. However, in larger purchases, the financial risk and time loss risk perceptions were higher among the non-users. The perceived risk of performance did not vary between users and non-users. As a conclusion, the main risk dimensions in payment behaviour are physical risk, performance risk, financial risk and time loss risk.

Pi, Liao and Chen (2012) also studied the effect of consumers' perceived trust on online financial services. Their results indicate that website trust (the amount of trust consumers have among online service providers) influences the continuous usage of financial services. Transaction security, website, company awareness and internet usage experience affect trust. Liao, Liu and Chen (2011) studied the effect of privacy, trust and risk perception on online transactions and retrieval of privileged information. They also agree that consumers' perceived risk, privacy concerns and internet trust affected the intention to use an online payment method, but it also affects the intention to retrieve privileged information.

Clark and Ward (2008) studied consumers' payment choice when purchasing especially on eBay. eBay is an online auction site, where individuals can organize virtual "garage sales". These sites provide a great source to study how risk and convenience affect payment choice and buying behaviour, because the buying platform is considered to be more risky than conventional online stores. The main finding of their research is that product attributes seem to affect the payment choice more strongly than seller's characteristics or ratings. If the uncertainties regarding the product can be reduced through warranties, the consumer is more likely to use a credit card. In other case, cash-equivalent payment methods will be most likely used.

Respectively, positive perceptions of security and trust are commonly believed to increase the electronic commerce usage. Consumers' perceived convenience of the payment method is found to be related to the consumers' perceived trust of online payment systems. If the consumer finds the payment system inconvenient, it also reduces the customer's perceived trust towards that

payment method. Therefore, for a payment method to be perceived as trustworthiness, it also needs to be convenient to use. (Kim, Tao, Sin & Kim 2010).

Perceived security, trust and privacy are, therefore, important influencers on consumers' online payment method usage intention (Kim et al. 2010; Chen 2008). It can be concluded, that the uncertainty is especially important to consumers to whom the payment method is unfamiliar. However, more recent study of Schuh and Stavins (2016) found out that not all consumers find security factors to be important. They indicate that consumers are satisfied with the current security of payments. Therefore, increases in security would have to be substantial in order to affect consumer's payment behaviour and to increase the adoption of a payment method. However, privacy concerns should, according to Chen (2008), have a significant effect on overall perceived risk. Therefore, the third and fourth hypotheses are as following:

H3: Consumer's privacy concerns of online payment methods positively affect perceived risk
H4: Consumer's Perceived Risk of online payment method negatively affects his or her intention to use the payment method.

2.3.3 Perceived Ease of Use

Ease of use is one of the fundamental factors explaining the intention to use a technology (Davis 1989). The significance of ease of use to innovation adoption is reinforced by self-efficacy theory by Bandura (1982). He defines self-efficacy as:

> "Judgements of how well one can execute courses of action required to deal with prospective situations" (Bandura 1982, p. 122.)

Self-perceptions of efficacy is believed to influence actions. The theory aims to explain why individuals do not always behave optimally, even if they know what the optimal behaviour is. The author believes this is, because individuals have self-referent thoughts that affect behaviour. The theory of self-efficacy, therefore, addresses how people review their abilities and how this judgment affects the motivation and behaviour. Thus, Self-perceptions of efficacy is individual's estimation of one's future action, since people perform those activities they believe they are able to manage, and avoid those they consider to outdo their capabilities. (Bandura 1982.) The term of self-efficacy is believed to be connected to the term of ease of use (Davis 1989). Indeed, self-efficacy is found to influence thought patterns and emotions. People, who evaluate themselves as inefficacious tend to imagine difficulties to be more intimidating than they really are. (Bandura 1982.)

The previous studies on payment method choice believe payment method's own features affect its desirability (Focsht et al. 2010). See-To et al. (2014) found that consumers judge payment technologies based on its easiness to use. Jonker (2015) also finds easiness to use an important factor influencing payment method usage intention. She finds that debit card is perceived as the easiest to use of

payment methods. Chen (2008) also studied perceived ease of use in the context of mobile payments and found that consumers are more likely to use mobile payments if they believe the instrument is easy to use. She believes for payment method to be perceived as easy to use, it must be well designed and the payment procedure needs to be straightforward. Online payment forms must be easy to understand and navigate and the number of steps must be minimized. At the end of the payment, adequate feedback must be added in order to provide help and avoid confusion. Therefore, the fifth hypothesis is:

H5: Consumer's Perceived Ease-of-Use of online payment method positively affects his or her intention to use the payment method.

2.3.4 Perceived Usefulness

Banduras theory of self-efficacy is also closely linked to the term of usefulness. He introduces a variable called "outcome judgment". He claims that behaviour is best predicted through both self-efficacy and outcome beliefs. (Bandura 1982.)

Chen (2008) studied the effect of perceived usefulness on intention to use mobile payments. She found that the perceived transaction speed and convenience positively affect the perceived usefulness. Convenience is indeed found to be especially important factor to affect payment method's attractiveness. However, the perceptions of payment attributes vary between individuals. This means that a method that is found convenient by one consumer may be complex to another. (Schuh & Stavins 2012.) See-To et al. (2014) also found that the lower the product or service cost is, the more the convenience of the payment method will matter, because otherwise the total transaction cost will increase.

According to Ching and Hayashi (2010) perceived usefulness is important for consumers to continue to use a payment method, even if the primary incentive, such as a reward program is taken away. Hernandez et al. (2017) believe the perceived usefulness depends on the reason why consumer uses a specific payment method. For example, a consumer, who has to track his or her expenditures closely because of a financial situation, may find cash and debit cards to be useful, and others to be not. Consumers who have very low incomes consider the cash to be most useful payment tool, whereas consumers who have a good financial situations, but still want to monitor closely their spending find debit cards to be more useful than cash.

In a usual online shopping situation, a consumer goes through a variety of steps in order to purchase the goods. These steps include personal information, credit card details, delivery details and a confirmation of the amount to be paid. However, to increase usability, convenience and speed many payment providers have eliminated these steps. The most radical payment method is Amazon's one-click buying process. (Dutta et al. 2003.)

As a conclusion, the perceived usefulness clearly depends on the reference point. However, it is an important explanatory factor in describing consumer's intention to use a payment method. The sixth hypothesis is constructed as following:

H6: Consumer's Perceived Usefulness of online payment method positively affects his or her intention to use the payment method.

2.4 Impact of Consumer Payment Behaviour on Consumer Buying Behaviour

In the previous chapter the main factors' effect on consumer's intention to use an online payment method and the hypotheses were introduced. However, just knowing with what payment method and why consumers choose to pay is not enough to know about the payment behaviour. In this chapter the current knowledge about how consumers' payment behaviour affects buying behaviour is covered.

As already mentioned before, the earliest studies about payment methods and their effect on spending behaviour considered mostly cash, check and credit card payments (e.g. Soman 2001; Hirschman 1979; Feinberg 1986). In the earliest studies about consumers' payment behaviour, Hirschman (1979) had successfully proven the differences in how consumers choose between payment methods. However, she also found important to demonstrate how consumer's exploitation of payment systems affects the purchasing behaviour. According to her results, consumers are more likely to make a purchase if they own a bank card or a store issued credit card. However, consumers are likely to consume more if they own a bank card than store-issued credit-card or do not own a credit card at all and only pay by cash. Additionally, consumers who possess several credit card payment systems are more likely to spend extra than consumers who own less credit card payment systems or none at all.

2.4.1 Pain of Paying

Pain of paying is a feeling of immediate displeasure when paying (Zellermayer 1996). Zellermayer (1996, 19) found in his study that the pain of paying is affected by six items. Consumers usually feel pain when paying for products they usually have no control over, such as heating or electricity bills. Other painful payments are the once that happen after the consumption, for example phone bills. Pleasurable payments, however, are for example gifts or investments. Therefore, pain of paying is weaker if the consumer finds paying as fair, controllable and as an investment. Also, if the payment is immediate, done before consumption and if the expense is made for another person, the pain of paying is weaker. The actual amount spent also significantly affects the pain of paying, however, the coefficient of this item ranked as last of all the seven items in the Zellermayer's study.

The pain of paying can also be affected through the choice of a payment method. If the payment is made less transparent, the less pain consumers feel during the payment and thus they are willing to spend more. Payment can be

made less transparent through payment form. Transparent payment methods lead to easier spending than other payment methods. (Raghubir & Srivastava 2008.) Soman (2003) defines transparency of the payment, in other term, payment salience as:

> …the relative salience of the payment, both in terms of physical form and the amount, relative to paying by cash.

Cash is the most transparent payment method, and whether a payment method is found to be transparent, is relative to its similarity to cash payment method. The transparency of a payment method can be measured in both salience of form and amount. (Soman 2003.)

The pain of paying can weaken over time, thus affecting also when consumers choose to pay. Patrick and Park (2006) studied the timing of payments in order to understand when consumers are willing to pay for products. They found that consumers' preferences for prepayment depend on transaction characteristics if the product is nondurable and hedonic. If the payment characteristics are positive, consumers prefer the prepayment over post-payment when buying hedonic products. However, if favourable payment methods are not available, consumers prefer to post-pay in order to avoid unpleasable transaction situations. In the contrary, for utilitarian and durable products consumers prefer post-payment over prepayment regardless of the transaction characteristics. Consumers find payments to be painful and are motivated to avoid the pain through postponing the payment. According to Prelec and Loewenstein (1998), prepayment has some future benefits, however, the advantages of time discounting are considered to be more favourable. Consumers are able to depreciate the cost of the product through product usage.

According to Dutta et al. (2003) the pain of paying is closely linked to the term of mental accounting. Mental accounting theory is based on prospect theory. Mental accounting explains how consumers organize, evaluate and keep track of their spending. (Thaler 1999.) Consumers tend to categorize purchases in their minds in different mental accounts. Purchases are grouped into these accounts through attention, memory and judgment during the paying situation. Consumers tend to split their assets into different shares to these psychological accounts. Purchase in one mental account reduces the likelihood of additional purchase that would be grouped into the same account, because consumer now has less available wealth in that mental budget. (Heath & Soll 1996.)

As a conclusion, pain of paying is found to affect consumer payment behaviour. The pain affects negatively the intention to use a payment method and different payment methods result in different levels of pain. Therefore, the seventh hypothesis is:

H7: Usage intention of different payment methods result in different amounts of pain felt when paying.

2.4.2 Perception of ownership

The perception of ownership, or in other term, psychological ownership is defined as follows (Pierce, Kostova & Dirks 2003, 5):

> We conceptually define psychological ownership as that state where an individual feels as though the target of ownership or a piece of that target is "theirs" (i.e., it is MINE!).

There are several reasons for consumers to form psychological ownership towards objects. The feeling that something is "mine" is important for consciousness, self-awareness and perceptions of the environment. Psychological ownership is formed because of interpersonal ties, utilitarian, enjoyment, identity, financial and appearance-related reasons. (Richins 1994.)

Utilitarian value includes the usefulness of a product. Enjoyment value is imbedded in products that are able to provide pleasure to its owner. Products can also symbolize social relationships. For example, an object can resemble its owner of a close relative or a friend. The value of an item can also be captured through its meaning. Items can describe, for example, consumer's identity. Private meanings stem from the personal history and memories of the object. Financial ownership is formed when a product is found to be a good investment. Appearance related ownership is created when a consumer appreciates the aesthetic aspects of the object or feels he or she looks good in the product. (Richins 1994.)

A products value to a consumer can be captured through the price the consumer is willing to pay for the item or sell it. However, a price cannot be placed on all objects. For example, some possessions are so valuable, that a person is not willing to sell it for any price, meaning that normal economic rules do not apply to those objects. An example of such items are for example wedding rings and pets. Some consumers additionally do not value objects in economic terms. For instance, those people might choose a less paying job just because it is more interesting than a better paid one. To be able to correctly capture the value of an item, both economical value and value in use must be considered. (Richins 1994.) Value in use is defined as (Richins 1994, 505):

> Value in use is… the extent to which an owner holds a possession to be dear, independent of exchange opportunities.

Kamleitner and Erki (2013) studied how payment methods affect the perception of ownership. They indicate that cash payments result in stronger perception of ownership than other payment methods. However, the consumers who pay with a card report an increased sense of ownership over time, when cash payers do not report any increase at all.

Shah et al. (2015) studied recently whether a payment method can influence a post-transaction connection. In their field experiment, they asked participants if they were willing to purchase a mug for auction price of $2, when the normal price for the mug was $6.95. The participants were randomly selected in cash

payment condition and credit/debit-card payment condition. The participants were then interviewed two hours after the purchase. They found that the participants who paid with cash were significantly more attached to the mugs, since their WTA (willingness to accept) rates were much higher than the participants who paid by card. Additionally, participants who paid by cash expressed higher pain levels for paying, but also higher attachment levels towards their purchase.

In their second study, Shah et al. (2015) had participants donate $5 of their own money to a charity of their choosing versus donating $5 voucher to a charity of their own choosing. The participants were afterwards given a pin, which signalled support for the charity. The participants who had given their own money for the charity were more likely to have worn the pin during the next week than those who had donated a voucher. Therefore, as a conclusion based on the results of Shah et al., it can be sated that consumers are much more committed to organizations and products if they pay with more painful formats.

Hahn, Hoelzl and Pollai (2013) studied the effect of payment timing on product related emotions. For example, prepayment (saving condition: paying first and receiving the product later) is associated with positive emotions towards products and post payment (credit condition: receiving the product first and paying later) is related to negative emotions towards products. Therefore, consumers are more satisfied with their purchases if they use prepayment. However, consumers are not always aware of this effect, which might lead to customer dissatisfaction if they choose post payment over prepayment. Payment timing can also affect consumer's future buying decisions and customer retention.

H8: The usage intention of online payment methods affect consumers' perception of ownership.
H9: Consumers feel stronger perception of ownership when pain of paying is stronger.

2.4.3 Willingness to pay (WTP)

Willingness to pay is defined as the maximum amount that an individual is willing to pay for a product (Garni 1998.) Consumer's willingness to pay (WTP) varies between payment methods and the timing of the payment. Consumer's willingness to pay is much higher when paying with a credit card than cash. (Prelec & Simester 2001; Feinberg 1986; Soman 2001.) Consumers are also much willing to pay higher amounts and more likely to make an additional purchase with cards than in cash or checks (Runnemark et al. 2015; Soman 2001). Consumers who pay with credit cards are additionally more likely to use less time for decision making than those who pay with cash or checks (Feinberg 1986, Hirschman 1979).

Prelec and Simester (2001) also found a connection between a payment method and consumer's willingness to pay. In their study they conducted an auction, where participants were given a task to bid for tickets to a sporting event. The winner had to purchase the ticket on the next day by either cash or a credit card (the payment method was randomly assigned to participants and they did

not have the possibility to choose between payment methods). They found that WTP was significantly greater in the credit card condition, meaning the participants who had received the task to buy the tickets by credit card had bid greater amounts than those who had the task to purchase the tickets with cash.

These differences in spending can be explained through consumers having more money on their bank accounts than in cash (Prelec & Simester 2001). However, Prelec and Loewenstein (1998) do not believe the amount of money consumers have to spend has anything to do with their willingness to pay. They believe consumers spend more, pay more eagerly and use less time for decision making, because card payments are less transparent, thus reducing the pain of paying. Dutta et al. (2003) additionally find, that because of the transparency, consumers are not able to accurately track their spending. With reducing steps in paying, consumers are not able to recall their purchases and, therefore, the purchase is also not being correctly "saved" into the right mental account. As a result, consumers tend to do more impulse purchases.

However, Raghubir and Srivastava (2008) believe the effect of payment methods transparency can be nullified if consumers need to estimate an overall cost. They had two groups estimating a total amount of a Thanksgiving dinner. One group estimated a total amount, while the other estimated each item separately and added the estimations together to get the total amount (which is called piecemeal decomposition strategy). Participants under a cash condition made lower total estimations than participants under a credit card condition. However, the estimations of participants who used piecemeal decomposition strategy were not significantly different in cash and credit card conditions. The authors also found that consumers are more eager to spend $50 in form of a gift card than in form of cash, because gift card is less salient and is treated as "monopoly money." However, this condition can also be manipulated if the consumer has to restore the gift card in their wallet prior spending. This suppresses the difference in payment form, since the consumer is treating the gift card as money, making the consumer less likely to spend the gift card.

There is clearly evidence that consumer's willingness to pay differs between various payment methods. Hence, this study expects the same differences to exist when paying with different online payment methods. The tenth and eleventh hypotheses are:

H10: Usage intention of online payment methods affect consumers' willingness-to-pay
H11: Consumers are willing to pay more when pain of paying is weaker.

2.5 Theoretical model and hypotheses

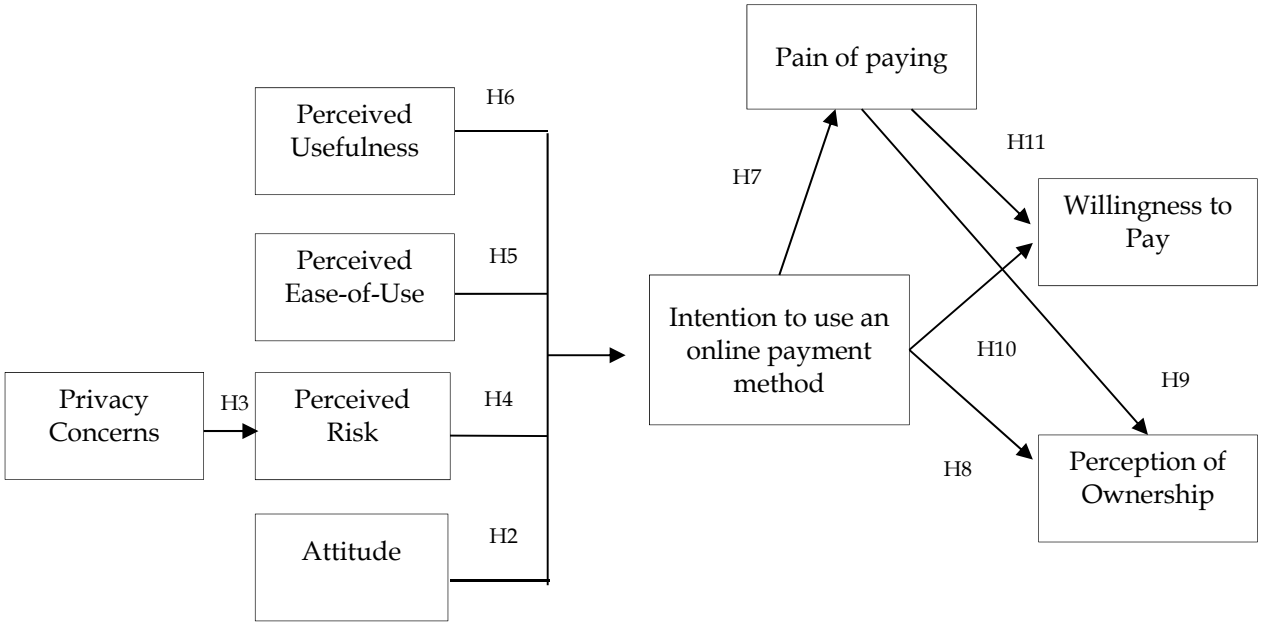


Figure 1: Theoretical model

The theoretical model is a combination of Technology Acceptance Model (Davis 1989), Innovation Diffusion Model (Rogers 2010), Chen's (2008) research model of Payment method selection, and the previous studies of the effect of payment methods on buying behaviour (e.g. Prelec & Simester 2001; Feinberg 1986; Hirschman 1979; Wakamori & Welte 2017; Soman 2003; Soman 2001; Ridgway & Netemeyer 1993; Kamleitner & Erki 2013; Shah et al. 2015; Hahn et al. 2013.) According to the theoretical model, the payment method usage intention is seen to be affected by perceived usefulness, perceived ease of use, perceived risk and consumer's attitude. Furthermore, the usage intention of various payment methods directly affect pain of paying, willingness to pay and perception of ownership. The hypotheses are again presented in a table below.

Table 2: Hypotheses

Intention to use a payment method	**Hypotheses:**
Characteristics of payment methods vs. characteristics of consumers	H1: The Perceived Usefulness and Perceived Ease of Use will explain online payment usage intention more than Perceived Risk or Attitude.
Attitude	H2: Consumer's attitude towards online payment method positively affects his or her intention to use the payment method.
Perceived Risk	H3: Consumer's privacy concerns of online payment methods positively affect perceived risk

	H4: Consumer's Perceived Risk of online payment method negatively affects his or her intention to use the payment method.
Perceived Ease of Use	H5: Consumer's Perceived Ease-of-Use of online payment method positively affects his or her intention to use the payment method.
Perceived Usefulness	H6: Consumer's Perceived Usefulness of online payment method positively affects his or her intention to use the payment method.
Payment method's effect on buying behaviour	
Pain of Paying	H7: Usage intention of different payment methods result in different amounts of pain felt when paying.
Perception of Ownership	H8: Usage intention of online payment methods affect consumers' perception of ownership.
	H9: Consumers feel stronger perception of ownership when pain of paying is stronger.
Willingness to Pay	H10: Usage intention of online payment methods affect consumers' willingness-to-pay
	H11: Consumers are willing to pay more when pain of paying is weaker.

3 METHODOLOGY

This chapter includes justifications for using a quantitative research method and some pros and cons of that specific research method. Furthermore, the questionnaire development is explained in detail. At the end of this chapter, data collection and analysing methods are described.

3.1 Quantitative method

Quantitative method analyses numerical data in order to explain a phenomena and it is used to study a topic in breadth. Quantitative method is used to test hypotheses and theories and relationships between two constructs. Quantitative method cannot create theories, but only test them. (Muijs 2004, p.2, 8-9, 11.) Therefore, in order to create a theory, a qualitative approach needs to be taken first. However, on the topic of payment behaviour and its effect on buying behaviour, numerous theories already exist. Several variables are already known to affect intention to use payment methods. For that reason, the variables were able to be chosen to be tested in this research. There was also no need to search for unexpected variables. Thus, a quantitative research method was implemented.

Survey is a most used non-experimental quantitative research method. They are structured questionnaires that can be collected through telephone interviews, face to face, post, e-mail or web. They are a great method for studies that want to test relationships between variables. Surveys are also used to test precise predictions of hypotheses. When choosing the variables to be tested, the researcher needs to choose the ones that he or she believes are most likely to affect the results. Testing all variables is often not possible due to financial and time constraints. (Muijs 2004, p.34, 36-37.)

Surveys are a great research method, because they are low in cost compared to other quantitative methods. The method also allows respondents to stay anonymous, which increases the response rate. Moreover, standardised questions allow the answers to be compared between respondents. However, surveys do not make it possible for the researcher to control the environment. Surveys are also limited in the length and depth of answers, because of the standardized question forms. Additionally, self-reports do not always give the same results as observational studies would. Nor is there any guarantee that the respondents have answered truthfully. (Muijs 2004, p.45.) Therefore, these pros and cons have to be taken into account when analysing the results.

3.2 Developing Questionnaire

The questionnaire was developed using Qualtrics program. Because the questionnaire was distributed in Finland, it was constructed only in Finnish language. The questionnaire was distributed online. Internet is a great distribution channel, because the response rate is the highest in online questionnaires (Valli 2015). The research additionally assumes that the consumers who shop online can also be easiest to reach through an online survey.

In order to guarantee the validity of this research, a pre-validated scales for all variables were used. The reliability was confirmed through using multiple-indicator measures.

Background information, such as gender, age, education, income, employment situation and previous experience of online shopping was included in the beginning of the questionnaire. After these background information questions, the respondents were randomly given one of the four online payment methods to which they had to respond. This was made in order to shorten the length of the questionnaire and in order to make the construct clearer to the respondent. The next chapter introduces shortly these online payment methods.

3.2.1 Online payment methods

The most offered online payment methods are credit card, PayPal, Internet-banking and Invoicing, and these payment methods were also included in this research. As already mentioned previously, of all online payment methods, credit cards are most popular payment tools. The credit card payment requires four types of information: the number of the card, the expiration date, name of the card holder and the CVC number. Many online stores also provide the option to save the card details for future purchases. This way the consumer needs to provide the card details only once. Paying with credit card online can be risky. For example according to O'Mahony et al. (2001, p.76-77) programs can be designed to capture the data stream of credit card numbers. What makes the credit cards even more risky, is the speed of credit card transactions. The fraudsters can make a substantial amount of transactions before the fraud is even detected.

Internet banking procedure is very similar to when paying with a credit card. The only difference is that the consumer does not have to own a card. They only have to have access to online banking. When choosing to pay with internet banking, the consumer usually has to choose their bank from a drop down menu. After that the site will automatically open a new window where the consumer needs to log in with their online banking account and password. After this they usually have to verify the payment. Verification usually happens with a code that consumers gets either on their phone via text message or through a specific application created just for these purposes, or they already have a various codes from the bank on a piece of paper.

In order for consumers to pay with PayPal, they first have to create a PayPal account, where they then save their credit card details or bank account information. The consumer can add as many cards on their account as they wish and the consumer can pay with PayPal already the same day. However, if the consumer chooses to save their bank account details, this verification can take up to few days. When choosing to pay with PayPal, the consumer just has to log in to their PayPal account and choose the card or account they want to charge the purchase on. No additional verification on the payment is required. The benefit is, that the consumer does not have to directly give their credit card information to the online store provider, which makes purchasing safer. (PayPal, Pay Online.)

Invoicing is the only payment method that does not require prepayment. The consumer gets to evaluate the product at home before paying for it. The consumer is usually required to pay for the product in 14 days after receiving the package. In order to pay the invoice, the consumer has to go through several steps. First, the consumer needs to log in to their online banking. Secondly, they need to type in the name of the payment receiver, the bank account number, the amount they wish to transfer, the reference number and the date when they want the payment to be conducted. Thirdly, the consumer needs to verify the payment. Using invoicing additionally allows the consumer to postpone the payment even further than the 14 days if the consumers chooses to pay the invoice with a credit card.

In the questionnaire, one payment method was randomly assigned to each respondent. The respondents were then familiarized with the payment procedure. For example if the respondent got to react to payment cards, they were informed about all the information they were required to fill in when paying online with a card.

3.2.2 Independent variables

The dependent variable in the first part of the model is the intention to use a payment method. The Independent variables were attitude, perceived risk, perceived ease of use and perceived usefulness. When studying consumer's payment choice, it would be difficult to truly understand why consumer made such a decision, without directly asking why. For example, when studying PIN debit card users and signature debit card users, both groups prefer their type of payment, because they believe it is more secure than the other. (Rysman 2009.)

Attitudes can be measured in three broader ways; self-reports, observations and psychophysiological measures. The majority of researches rely on self-report questionnaires and they agree that self-reports can be valid and reliable methods to assess attitudes. Controversially, non-verbal measures are not considered as reliable and they should not be used alone to measure attitudes. Self-reports can be measured directly or indirectly. Direct measures include questions like "I like a product X" versus "I dislike a product X", and it is called one-item rating scale. Such scale is sufficient for many research purposes. Indirect measures, however, are deduced from other verbal responses. In self-report measures it is assumed that people are motivated and able to report the truth about their attitudes.

(Pieters 1988.) For instance, Wrigth and Rip (1980) and Rip (1980) believe that people do have access to their true inner states, and are, therefore, able to report their true attitudes.

Attitudes were, therefore, measured through direct self-reports. Huang, Lee and Hsun (2004) created a six item scale to measure attitudes towards grey market goods. Their validated items were implemented in this study to explain the consumers' attitudes towards payment methods. However, the second item was left from the scale ("considering price, I prefer x"), because the price aspect was not suitable for this research.

The perceived usefulness and perceived ease of use were measured through Davis' (1989) 6 scale items. Here the first item of perceived usefulness: "Using x would enable me to accomplish tasks more quickly" and the second item for perceived ease of use: "I would find it easy to get x to do what I want it to do", were again deleted, because they were found not to fit payment methods that well. These items were also not used in Chen's (2008) study in mobile payment usage intention. For the perceived risk, the Chen's (2008) 7 items of perceived risk were implemented. The wording of all the items was slightly adjusted in order to fit them into online payment method framework.

3.2.3 Dependent Variables

In the second part of the model, which answers the second research question, the intention to use payment methods was the independent variable. The dependent variables were willingness to pay, perception of ownership and pain of paying. The measurements of these variables were taken from several studies.

Willingness to pay can be measured through two types of sources: hypothetical WTP and real WTP. Real WTP requires an actual financial commitment from the respondent. In other words, the respondent has to physically purchase the product, whereas the hypothetical WTP does not require any monetary commitment. (Voelckner 2006.) Presumably, the real WTP estimates are closer to the consumers' actual WTP amounts than the hypothetical estimations. The hypothetical WTP can be measured through two methods; contingent valuation (Mitchell & Carson 1989) or conjoint analysis (Kohli & Mahajan 1991). The real WTP is usually measured through biddings, for example with a Vickrey auction method (Vickrey 1961.)

Conjoint analysis is used for pricing decisions, especially regarding new products. In the conjoint analysis method, the respondents are asked to evaluate the products utility attributes and the maximum amount the respondent is willing to pay for the product. (Kohli & Mahajan 1991.) The contingent valuation method is also used for eliciting hypothetical WTP amounts. The respondents are presented with three types of material in order for them to give their estimations. First, the respondent needs to receive a comprehensive description of the products that are being valued and a hypothetical situation where the product is made available to the respondent. The information has to include a description of the product, how the product is acquired, the range of available substitutes and the payment method. Secondly, the respondents need to be asked for the

amount they would be willing to pay for the product. Thirdly, the respondents' characteristics need to be asked in order to gather some predictors for the WTP amounts. (Mitchell & Carson 1989.) In the Vickery auction method the respondents are asked to place their bids. The highest bid will win, but the winner is only required to pay the amount of the second highest bid. (Vickrey 1961.)

Voelckner (2006) did an empirical comparison of the hypothetical and real WTP estimation methods. In her study she had respondents divided into real and hypothetical contexts. In the real context the respondents had to purchase a prepaid phone cards. In the Vickrey auction the respondents were required to purchase the prepaid card if their bid won. They found that hypothetical WTP estimations were slightly higher than the real WTPs. Thus, using real WTP measures, where respondents have an obligation to purchase the product might give better results. However, using the hypothetical WTP technique is more practical.

In hypothetical WTP estimations the questionnaires can be designed to be either open- or close-ended. Open ended approach is often criticized for providing biased results. The open ended approach uses questions like "what is the maximum amount you are willing to pay for this product." The close-ended method, in contrary, are formulated as following: "Are you willing to pay X amount of money for this particular product?" The value of X is different across respondents. The close-ended method resembles real-world purchasing situations, where the price is already given. In such payment scale method, there are also no zero values and the response rate is often higher than in open ended format. (Donaldson, Thomas & Torgerson 1997.)

In this research hypothetical WTP estimations were used. There is no need to oblige the respondents to purchase the items, because the aim is to discover if there is a difference between respondents' WTP amounts when using different online payment methods. The fact if the estimated WTP amounts are slightly higher or lower than the respondents' actual WTP should not significantly influence the end results. The contingent valuation method was implemented, because the valuation of other attributes of the products are not necessary for this research. Only the valuations of the price the respondents are willing to pay for the product are relevant. Additionally, close ended forms were used in order to minimize the zero value answers and to optimize the response rate. However, in order to get more specific results, the price categorization method was used instead of only asking for the maximum amount the consumer is willing to pay for a product. The price categorization method by Monroe (1971) requires the respondents to categorize already given prices into 7 groups. The categories are not acceptable because price is clearly too low, not acceptable because price is too low, acceptable but price is still low, most acceptable price, acceptable but price is still high, not acceptable because price is too high, and not acceptable because price is clearly too high.

For measuring the perception of ownership the items validated by Peck and Shu (2009) were used. They studied the effect of touch on perceived ownership.

They had their respondents divided in two groups, where one group had the instructions to touch a product (slinky or a mug) and to imagine the product was theirs before answering the questionnaire. The second group was not allowed to touch the products nor were they instructed to imagine buying the products. They were, however, allowed to evaluate the products outwardly by looking at them. The respondents were then asked to evaluate their psychological ownership through three items on a 7-point Likert scale between strongly agree and strongly disagree. However, in online questionnaire the respondents were clearly not able to touch the products. Consequently, only the imaginary aspect of the method was able to be implemented.

To measure pain of paying Zellermayer's (1996) method was used. The Zellermayer's technique consists of three phases: First the respondents have to evaluate a list of purchases based on their pain-pleasure levels on scale from -5 to 5, where -5 is painful, 0 is neutral and 5 is pleasurable. The scale was adjusted a little in order to shorten it and make it possible for respondents to answer the questionnaire with a mobile device. Therefore, in this study the scale was 9-Point, where -4 was painful and 4 was pleasurable. The bill of purchases is described, however, the price is not given. The respondents have to fill in the typical dollar amount themselves. The purchase descriptions have to include purchases that are found to be fair, investments, gifts, controllable, non-controllable, and where the payment is immediate or before consumption. The second and third phases include the same purchases as the first phase, however, here the respondent answers whether they would pay such purchases immediately, at a normal time (or they do not care), or if they would postpone the payment as long as possible. They also get to choose the preferred payment method for every purchase situation. In order to, again, shorten the questionnaire, the respondents were randomly assigned to react to three out of seven imaginary purchase situations.

To make it possible to evaluate the results, in the first half of the questionnaire, all respondents were given an identical hypothetical purchase situation, to which they were required to respond under the given payment method condition. The hypothetical purchases were a washing machine and a coffee machine. The criteria for both products included, that they were unisex, prices of the products vary drastically in the market, the products can be found in all household, they are used daily, purchasing or using the products does not require much of a technical knowledge and that the products are not associated strongly with any brands. The last one was important especially for the price estimations, because if the product would have been associated with a specific brand, that could have affected the willingness to pay estimations. The hypothetical purchase situation also contained a description of the respondent's current financial situation in order to minimize the effect of respondent's true monetary situation on their willingness to pay amounts. Additionally, a short explanation about the reasons to purchase those products was given.

The second part of the questionnaire was a profounder implementation of Zellermayer's (1996) method. Respondents were randomly assigned to answer on three out of seven purchase situations. The products introduced in this phase

were baby carriage, vacation, phone line, gift, home insurance, art and a lamp. The criteria for all the products in this part was that respondents would find different purchases to have various levels of fairness, controllability and characteristics of investments or gifts. The items used to measure both independent and dependent variables are listed in Appendix1.

3.3 Data Collection and Analysis

The questionnaire was distributed online through Facebook, LinkedIn and E-mail, therefore, convenience sampling was used. Convenience sampling is used when a researcher has an easy access to specific distribution channels and exploit those. The method is convenient and is low in cost, but often biased. (Muijs 2004, p.40.) The data were collected between 4.3.2018-24.3.2018. In total 244 responses were received. The questionnaire was opened 382 times. According to Malhotra (2017, p.533) discarding participants during quality control from the research is recommendable if the responses on the important variables are missing. 138 responses were, therefore, later deleted, because they were either empty or partial responses (only background information was filled). The effective response rate was therefore 63.9%.

The analysis consisted of three steps. First, the data were transferred from Qualtrics into IBM SPSS Statistics 24. After checking the data for insufficient responses, 138 responses were excluded. Secondly, the frequencies and percentage of distribution was calculated and other descriptive statistics were performed. The results can be seen in the next chapter.

The second step was exploratory factor analysis, which was also conducted using IBM SPSS Statistics 24. Exploratory factor analysis is used to determine how and in what extent items are linked to core factors (Byrne 2016, p.6). The results of exploratory factor analysis are however not included. It was rather conducted in order to be able to perform the next step, which was confirmatory factor analysis. For confirmatory factor analysis, a two-step approach was adopted from Anderson and Gerbing (1988). Confirmatory factor analysis is a model that specifies the relationships between observed measures and their underlying constructs. Confirmatory structural model then identifies how constructs are related to one another. (Anderson & Gerbing 1988.) Confirmatory factor analysis was conducted using SPSS AMOS 24.

4 RESULTS

This chapter presents the study results. Descriptive statistics of demographics, payment behaviour and buying behaviour are presented first. This is followed by the variance of means being further analysed with ANOVA. At the end, a confirmatory factor analysis is conducted and structural model constructed.

4.1 Descriptive Statistics

This chapter includes the descriptive statistics of the research. First the demographics are presented. Secondly, the means and standard deviations of items measuring payment method usage intention, willingness to pay, pain of paying and perception of ownership are included. Based on the results, One-way ANOVA was conducted. The most significant results are represented. At the end, the results of the second part of the study, where Zellermayer's method of measuring pain of paying was implemented, are revealed.

4.1.1 Demographics

The majority of respondents were females (80.7%), single (73.4%) and were university graduates (44.7%). The most of the respondents were also either students (33.6%) or had a full time job (43.0%). The largest age group was from 21 to 25 (34.0%). The second largest was ages between 26 and 30 (29.9%), and third largest was the age group from 31 to 35 (10.7%). The majority of the respondents had a monthly income of 0-599 € (25.8%). The second largest group had a monthly income of 2000-2599 € (13.9%), when the third largest group had an income of 1000-1599 (12.3%). Most of the respondents also had experience of online shopping (98.4%), where 29.9% had purchased something online 3-6 times in one year time. 29.5% had purchase more than 10 times and 21.7% had shopped online 7-10 times. Of all respondents 25.4% answered under credit card condition, 25.0 % under internet bank condition, 26.2 % under PayPal condition and 23.4% under invoicing condition. The detailed results can be seen in Table 3.

Table 3: Demographics

Payment method					**Total**	
	Credit Card	Internet banking	PayPal	Invoicing	N	%
	62	61	64	57	244	100
Gender			%			
Female	84.7%	74.6%	85.7%	87.5%	197	80.7
Male	15.3%	25.4%	14.3%	12.5%	44	18.0
Age						
16-20	4.9%	12.1%	4.8%	0.0%	13	5.3

21-25	34.4%	31.0%	35.5%	37.5%	83	34.0
26-30	41.0%	31.0%	27.4%	21.4%	73	29.9
31-35	8.2%	6.9%	14.5%	14.3%	26	10.7
36-40	8.2%	6.9%	6.5%	12.5%	22	9.0
41-45	1.6%	6.9%	3.2%	5.4%	10	4.0
46-50	1.6%	1.7%	6.5&	0.0%	6	2.5
51-55	0.0%	0.0%	0.0%	3.6%	2	0.8
56-60	0.0%	3-4%	1.6%	5.4%	6	2.5
Marital status						
Married	21.3%	20.3%	14.3%	50.0%	54	22.1
Single	77.0%	72.9%	85.7%	50.0%	179	73.4
Registered partnership	0.0%	1.7%	0.0%	0.0%	3	1.2
Divorced	1.6%	5.1%	0.0%	0.0%	7	2.9
Education						
Primary school	0.0%	0.0%	0.0%	1.8%	1	0.4
High school	24.6%	23.7%	15.9%	16.1%	48	19.7
Vocational school	9.8%	8.5%	7.9%	3.6%	18	7.4
University of Applied Sciences	24.6%	22.2%	28.6%	33.9%	67	27.5
University	41.0%	45.8%	47.6%	44.6%	109	44.7
Employment status						
Unemployed	5.0%	3.4%	0.0%	5.4%	8	3.3
Partly employed	10.0%	1.7%	3.2%	10.7%	15	6.1
Employed	43.3%	39.0%	46.0%	42.9%	105	43.0
Student	28.3%	47.5%	38.1%	21.7´4%	82	33.6
Student and partly employed	11.7%	6-8%	7.9%	16.1%	25	10.3
Student and fully employed	1.7%	1.7%	4.8%	3.6%	7	2.9
Monthly income (gross)						
0-599 €	27.6%	30.9%	33.9%	14.5%	63	25.8
600-999 €	13.8%	10.9%	8.1%	10.9%	25	10.2
1000-1599 €	10.3%	12.7%	6.5%	23.6%	30	12.3
1600-1999 €	6.9%	7.3%	4.8%	1.8%	12	4.9
2000-2599 €	25.9%	16.4%	8.1%	9.1%	34	13.9
2600-2999€	1.7%	10.9%	8.1%	10.9%	18	7.4
3000-3599€	6.9%	7.3%	12.9%	10.9%	24	9.8
3600-3999€	3.4%	0.0%	6.5%	10.9%	12	4.9
4000€ or more	3.4%	3.6%	11.3%	7.3%	15	6.1
Previous experience in online shopping						
Yes	98.4%	98.3%	98.4%	100%	240	98.4
No	1.6%	1.7%	1.6%	0.0%	3	1.2
Amount of purchases during the last year						
0 times	0.0%	1.7%	0.0%	0.0%	1	0.4
1-2 times	15.0%	20.7%	16.1%	17.9%	41	16.8
3-6 times	30.0%	24.1%	30.6%	37.5%	73	29.9
7-10 times	21.7%	17.2%	21.0%	28.6%	53	21.7
> 10 times	33.3%	36.2%	32.3%	16.1%	72	29.5

4.1.2 Payment behaviour

This chapter includes the means and standard deviations (SDs) of all items measuring attitude, perceived usefulness, ease of use, perceived risk and privacy concerns, and usage intention. All items were measured on a 7-point Likert scale.

From the means and SDs it can be noticed that PayPal and Invoicing were rated the lowest on attitude, perceived usefulness and usage intention scales. On perceived ease of use PayPal got lower ratings on items 2 and 3, however, the rest of the items were rated quite similarly as the other three online payment methods. Credit card and PayPal were rated as the riskiest payment methods, when invoicing was perceived as the least risky. On privacy concerns all payment methods were rated similarly. Internet banking was rated highest on usage intention scale, followed by credit card and invoicing. PayPal was rated as lowest on usage intention scale.

Table 4: Means and Standard deviations of Payment Behaviour

	Credit card		**Internet banking**		**PayPal**		**Invoicing**	
	mean	s.d	mean	s.d.	mean	s.d.	mean	s.d.
AT1	4.07	1.692	4.38	1.574	3.18	1.576	3.21	1.670
AT2	4.70	1.838	5.48	1.308	3.53	1.888	3.71	2.060
AT3	4.80	1.481	5.30	1.488	3.76	1.663	4.88	1.402
AT4	5.87	1.323	6.03	1.497	5.68	1.554	6.29	1.187
AT5	5.49	1.885	6.27	1.210	4.34	2.245	4.92	2.311
PU1	4.23	1.802	4.57	1.661	3.35	1.775	3.63	1.764
PU2	4.46	1.649	4.78	1.609	3.33	1.884	3.43	1.777
PU3	4.13	1.500	4.57	1.500	3.05	1.607	3.46	1.595
PU4	5.58	1.344	5.80	1.505	4.16	1.862	4.43	1.971
PU5	5.20	1.470	5.95	1.305	4.00	1.718	4.48	1.963
PEU1	6.43	.991	6.63	.712	5.08	1.548	6.20	1.166
PEU2	6.25	1.075	6.58	.770	4.60	1.819	5.71	1.524
PEU3	5.84	1.319	6.17	1.167	4.65	1.734	5.72	1.642
PEU4	6.21	1.185	6.44	1.038	5.40	1.314	5.93	1.526
PEU5	5.26	1.493	5.33	1.704	4.11	1.427	5.07	1.777
PR1	3.57	1.533	3.07	1.314	3.00	1.460	2.63	1.556
PR2	3.89	1.790	3.58	1.488	3.76	1.593	2.82	1.800
PR3	2.77	1.371	2.30	1.381	2.56	1.153	2.52	1.489
PR4	3.65	1.505	2.73	1.271	3.44	1.379	2.89	1.448
PR5	3.43	1.533	2.68	1.334	2.87	1.194	2.86	1.577
PR6	3.77	1.596	3.41	1.315	4.25	1.576	3.64	1.612
PR7	3.38	1.439	2.88	1.176	3.60	1.693	2.70	1.606
PC1	4.20	1.721	3.52	1.789	3.92	1.556	3.54	1.848
PC2	4.56	1.432	3.78	1.403	4.16	1.472	3.89	1.663
PC3	3.84	1.416	3.17	1.428	3.78	1.419	3.71	1.615
PC4	4.02	1.499	3.67	1.537	3.90	1.586	3.30	1.439
PC5	3.41	1.419	2.92	1.344	3.37	1.462	2.64	1.495

UI1	5.08	1.819	5.64	1.494	3.86	1.900	4.07	2.088

After observing the means and SDs between different payment methods, clear differences in results can be observed. Therefore, a thorough analysis of means between background variables is needed in order to determine which background variables might explain these differences. This was conducted through using One-way ANOVA. However, because age and gender were unevenly distributed between payment method-conditions, these variables were not included in the analysis. Based on the results of ANOVA only employment status was found to significantly explain the differences in responses of payment behaviour. Indeed, employment status was found to significantly explain the differences in responses of perceived ease of use ($F=2.625$, $p<.05$), usage intention ($F=2.478$, $p<.05$) and attitude ($F=3.136$, $p<.05$) under internet banking condition, and perceived ease of use ($F=2.437$, $p<.05$), perceived risk ($F=2.492$, $p<.05$) and perceived privacy concerns ($F=2.993$, $p<.05$) under invoicing conditions.

Based on the results of One-way ANOVA Tukey-test was conducted. In order to be able to perform Post Hoc-test, the employment status of respondents was recoded. Respondents who had answered they were students and worked part or fulltime were recoded to be just working. Recoding these respondents to be just students did not unfortunately help. Responses for easiness to use internet banking and attitude towards internet banking were significantly different between partly employed and fully employed respondents ($p<.05$). Indeed, fully employed respondents found internet banking more easy to use than partly employed respondents. Additionally, fully employed respondents had more positive attitudes towards internet banking than partly employed respondents. Responses for internet banking usage intention were significantly different between fully employed and students ($p<.05$). After examining the results further, it was noticeable that fully employed respondents were more likely to use internet banking than students. For perceived ease of use, perceived risk and privacy concerns under invoicing condition there were no significant differences between groups to be found.

4.1.3 Buying behaviour

This chapter introduces the means and SDs on items measuring willingness to pay, pain of paying and perception of ownership. Pain of Paying was measured in two phases in the questionnaire. The first phase included respondents' pain-level evaluations on the washing machine and coffee machine. The second phase contained seven different purchase situations, where respondents' were required to answer on three of them. The results of the second part of pain of paying measures are presented separately after this chapter.

The beginning of the table 5 includes responses on washing machine. Willingness to pay scale was from 1-11. The willingness to pay for coffee machine, which is presented after washing machine items, was measured on a 17-point

scale. Pain of paying was measured on a 9-point Likert scale, where -4 was painful and 4 was pleasurable. Perceived ownership was also measured on a Likert-scale, however, it was 7-point with endpoints of "strongly disagree" and "strongly agree."

The results of means and standard deviation show that for a washing machine respondents who answered under invoicing condition were willing to pay the highest amounts. Second highest amounts were willing to pay those respondents, who answered under PayPal condition and thirdly the respondents under internet banking condition. Respondents under credit card condition were willing to pay the lowest amounts for a washing machine, but also for a coffee machine. The highest amounts for a coffee machine were willing to pay those respondents, who answered under internet banking condition. Second highest amounts were given under PayPal and the lowest under invoicing conditions. For washing machine, means for pain of paying were similar under all conditions. However, for a coffee machine, respondents under PayPal and Internet banking conditions rated higher amounts of pain than other respondents. The means on perception of ownership show that respondents under credit card and invoicing condition felt stronger psychological ownership of washing machine and coffee machine than other respondents.

Table 5: Means and Standard deviations of Buying Behaviour

	Credit card		**Internet banking**		**PayPal**		**Invoicing**	
	mean	s.d	mean	s.d.	mean	s.d.	mean	s.d.
WTPW1	1.31	.847	1.09	.354	1.32	.811	1.20	.626
WTPW2	1.75	1.108	1.91	.807	2.00	1.034	1.87	.953
WTPW3	2.75	1.421	2.95	1.156	3.16	1.296	3.20	1.182
WTPW4	4.31	1.675	4.64	1.228	4.70	1.444	4.75	1.352
WTPW5	5.97	1.736	6.00	1.099	6.19	1.513	6.21	1.371
WTPW6	7.59	1.616	7.61	1.451	7.66	1.609	7.73	1.531
WTPW7	8.87	1.804	9.02	1.645	9.13	1.727	9.18	1.840
PPW	6.47	1.880	6.37	2.285	6.43	1.698	6.64	2.144
POW	2.85	1.880	2.62	1.842	2.44	1.718	2.79	1.755
Note: WTP scale for washing machine: 1=179.90, 2=219.90, 3=269.90, 4=299.90, 5=349.90, 6=479.90, 7=699.90, 8=799.90, 9=999.90, 10=1199.90, 11=1449.90								
WTPC1	1.21	.725	1.49	1.971	1.23	.525	1.28	6.32
WTPC2	1.72	1.098	2.36	2.169	2.02	.942	2.06	.998
WTPC3	2.65	1.438	3.60	2.339	3.25	1.218	3.20	1.507
WTPC4	4.79	2.555	5.88	2.798	5.72	2.497	5.13	2.208
WTPC5	7.05	2.772	8.07	2.635	7.63	2.784	7.47	2.930
WTPC6	9.87	3.375	10.43	3.212	10.30	2.949	10.29	3.206
WTPC7	12.16	3.676	12.78	3.107	12.76	3.211	12.63	3.705
PPC	6.41	1.957	6.67	2.056	6.79	1.439	6.38	2.491
POC	2.75	1.970	2.54	1.873	2.54	1.856	2.64	1.612

Note: WTP scales for coffee machine: 1=10.90, 2=19.90, 3=29.90, 4=39.90, 5=49.90, 6=59.90, 7=69.90, 8=79.90, 9=89.90, 10=99.90, 11=119.90, 12=149.90, 13=169.90, 14=189.90, 15=249.90, 16=309.90, 17=429.90

Just as after observing the means and SDs in payment behaviour, the same steps were implanted here. In buying behaviour clear differences in responses can be noticed, and, therefore, One-way ANOVA and Tukey-tests were again conducted.

There seems to be a significant effect between marital status and willingness to pay, especially under invoicing condition ($F=6.532$, $p<.01$). Indeed, there was a clear noticeable difference in answers between married and single respondents. Married respondents were willing to pay higher amounts than single respondents under invoicing condition.

Employment status was also found to significantly explain the differences in responses of willingness to pay ($F=2.638$, $p<.05$) under internet banking condition. Fully employed respondents were willing to pay much higher prices for coffee machine than partly employed respondents and students. Partly employed were furthermore willing to pay higher prices than students. When examining the willingness to pay amounts on washing machine, employed respondents were again willing to pay more than partly employed or students. However, between partly employed and students the difference was no longer as significant as in the example of coffee machine.

In order to be able to conduct Post Hoc –test for income, a new grouping for income was conducted (0-999, 1000-1999, 2000-2999, 3000 or more). Indeed, there was a significant effect between income and willingness to pay ($F=2.741$, $p<.05$) under credit card condition. The respondents who have lower incomes were more likely to choose lower prices on the given scale for both washing and coffee machines. The effect is also significant between income and pain of paying under invoicing condition ($F=3.220$, $p<.05$). The respondents with higher income levels (2000-2999) were more likely to feel positively rather than negatively for purchasing a coffee machine. However, under washing machine the effect was no longer significant.

4.1.4 Pain of Paying

The second part of pain of paying measures included seven various purchasing situations, and the respondents were required to answer on three of them. The questionnaire included questions about how painful the consumers would find the purchase situations, when would they pay for the product, with what payment method they would pay in a similar purchase situation and how much would they expect the purchase to cost. The pain of paying was measured on the same 9-Point Liker scale as in the previous part, where -4 was painful and 4 was pleasurable.

Based on cross tabulations, the Pearson Chi-Square test was significant between the pain felt when paying and payment method for a baby carriage (41.455, p<.05), and the Pearson's correlation was also significant (-.243, p<.05). This indicates that there is a significant interdependence between these two variables. On the baby carriage, most of the respondents found the purchase situation pleasurable on level 2 (N=13, N=15.5%), on level 3 (N=24, 28.6%) and on level 4 (N=23, 27.4%). Most of the respondents also chose to pay for the product using a credit card (N=45, 52.9%) and internet banking (N=32, 37.6%). However, the credit card was more popular among those respondents who ranked the painfulness level on 3 and 4. Respectively, the respondents who ranked the baby carriage on lower than 3 mostly chose internet banking and invoicing as preferable payment method.

The Pearson Chi-Square was also significant between the pain felt when paying and payment timing in vacation (-.501, p<.01), gift (-.361, p=<.01), home insurance (-.324, p<.01) and art (-.339, p<.01) -purchase situations. Additionally, within responses for art, there was a slight significant correlation between pain of paying and willingness to pay (.233, p<.05). This, again, means there is a significant dependency between pain of paying and payment timing, and willingness to pay. Most of the respondents, who answered on vacation items, found purchasing a vacation rather pleasurable than painful (N=56, 57.7%). However, the share of respondents who found the purchase situation rather painful was also high (N=34, 35.1%). The respondents who thought purchasing a vacation is a negative purchase situation, mostly answered they would pay as late as possible (57.1%), when respondents who found the purchase situation more positive, mostly answered they would pay as early as possible (53.6%). Respondents who answered on questions about a gift, also found the purchase situation to be mostly pleasurable (N=86, 81.1%). The respondents would also prefer to pay as early as possible (N=65, 61.3%).

Pain of paying levels on art were again mostly positive (N=76, 83.5%). The responses on payment timing were highest on "as soon as possible" or "normal phase/don't care." However, the responses on "as soon as possible" increased the more pleasurable the respondents found the purchase situation to be. Most of the respondents, who found the situation to be negative, would also spent maximum of 399 euros, when the respondents who found the purchasing situation rather positive would spent 600 euros or more (N=19, 25.0%).

Home insurance was found to be painful by almost a half of the respondents (N=41, 42.7%), when the other half found it pleasurable (N=47, 49.0%). The respondents who found the purchasing situation as negative, did not care about the payment timing (N=21, 51.2%), when the rest of the respondents answered evenly that they would rather pay as soon as possible or as late as possible. Respondents, who found the purchase situation to be pleasurable, mostly answered they would pay as soon as possible (N=26, 55.3%), when the second largest group would not care about the timing of the payment (N=17, 36.2%).

4.2 Confirmatory Factor analysis

The Confirmatory factor analysis was conducted using SPSS Amos 24. Based on the results of exploratory factor analysis three items (AT4, PR7 and PC3) were removed. Additionally, WTP1, WTP2 and WTP3 were removed after conducting reliability analysis. Removing these items was also supported by normality distribution tests, where Skewness and Kurtosis scores indicated, that these items were not normally distributed. Most statistics in Structural equation modelling assume items to be normally distributed. Therefore, if unmorally distributed data are used in model testing, the results between data and model compatibility can be incorrect, and cannot be trusted. (Weston & Gore 2006.)

In confirmatory factor analysis, Factor loadings should be higher than .60 and correlations below .80 for the model to be adequate. To be able to reach these requirements, further items were deleted: AT3-5, PU4-5, PEU5, PR6-7 PC1, PC5 and UI. The correlations were .80 or below and the standardized loading were all above .631.

Table 6: Factor loadings, Cronbach's alpha and Critical Ratio-values

Factor	**Cronbach's alpha**	**Item**	**Standardized loadings**	***Critical Ratio***
Perceived Risk	.834	PR1	.757	10.527
		PR2	.658	9.273
		PR3	.668	9.402
		PR4	.763	10.598
		PR5	.716	10.527
Privacy Concern	.735	PC2	.881	7.177
		PC4	.716	7.177
Perceived Usefulness	.853	PU1	.749	10.534
		PU2	.873	14.416
		PU3	.824	14.416
Attitude	.849	AT1	.784	14.104
		AT2	.950	14.945
Perceived Ease of Use	.852	PEU1	.775	9.824
		PEU2	.863	10.522
		PEU3	.798	10.029
		PEU4	.635	10.522
Willingness to Pay	.907	WTP4	.825	11.244
		WTP5	1.018	19.182
		WTP6	.797	15.539
		WTP7	.631	11.290
Perception of Ownership	.877	POP	.913	10.019
		POK	.856	10.019
Pain of Paying	.782	PPP	.811	8.541
		PPK	.791	8.541

The model also passed the tests evaluating measurement models. Construct reliability (CR) tests construct's internal consistency and the values should be

above .70-.90 for the values to be satisfactory (Hair, Hult, Ringle & Sarstedt 2016). The values of construct reliability test were all above the minimum requirement. The model did also pass the Convergent validity test. Convergent validity tests how measures correlate with other measures of same construct (Hair et al. 2016). The Convergent validity was tested trough values of average variance extracted (AVE), which should be above .50 for the latent variables to adequately explain at least half of the variance. Discriminant validity was examined through Fornell-Larcker criterion, which compares the square roots of AVE to latent variable correlations. The square root of AVE should be greater than its correlations with other constructs. Discriminant validity tests if a construct is truly distinct from other constructs. (Hair et al. 2016.) The square root of AVE was higher than the construct correlations in all cases.

Table 7: CR, AVE, square root of AVE

	CR	AVE	PC	PU	PO	PR	WTP	PEU	PP	AT
PC	0,737	0,584	0,764							
PU	0,857	0,667	-0,224	0,817						
PO	0,878	0,783	-0,259	0,203	0,885					
PR	0,838	0,509	0,459	-0,285	-0,003	0,713				
WTP	0,895	0,687	0,025	0,094	0,110	-0,189	0,829			
PEU	0,854	0,596	-0,376	0,641	0,155	-0,360	0,097	0,772		
PP	0,782	0,642	-0,239	0,367	0,459	-0,287	0,056	0,272	0,802	
AT	0,860	0,757	-0,319	0,811	0,199	-0,386	0,054	0,654	0,424	0,870

4.3 Structural Model

Hypotheses were tested using Structural equation modelling (SEM) method. SEM modelling is used to test complete theories and concepts. The method has two constructs. The first construct shows the relationships between factors, which were described in the chapter of confirmatory factor analysis. After confirming the validity and reliability of the construct measure, the structural model can be constructed. The second construct, therefore, includes direct and total effects between constructs. (Hair, Ringle & Sarstedt 2011.)

The structural model is evaluated through R^2-measures and Path Coefficients. R^2-value shows how much the endogenous latent variables explain the target construct. Therefore, the value of R^2 should be as high as possible. R^2 values are however dependent on the research field, and for example for consumer behaviour values of .20 are already considered high. The path coefficients (ß), however, show if the hypothesized relationships between constructs are significant. (Hair et al. 2011.)

4.3.1 Direct and total effects

The RMSEA-value of the structural model was .80, meaning it passes the model fit (<.08). Additionally, the Chi-square statistic is 943.812 with a 282 degrees of freedom (*p* value = .000). The Chi-square/degrees of freedom – ration is, therefore, 3.35 (<5.0), which indicates that there is a good fit between model and data.

The results of R^2-values indicate that the endogenous latent variables do significantly explain all the target constructs except willingness to pay (R^2 =.03). The R^2 value for usage intention was 1.00, for pain of paying .13 and for perception of ownership .21. Based on path coefficients of direct effects, hypotheses 2, 3, 5, 6, 7, and 9 were supported. Additionally, based on total effects, hypothesis 8 was also supported (ß=.15, p<.05). However, hypotheses 4, 10 and 11 were contrarily not. Additionally hypothesis 1 claimed that payment methods own characteristics, perceived usefulness and perceived ease of use were supposed to affect payment method usage more than consumer's own characteristics, such as attitude or perceived risk. However, based on path coefficients and Critical Ratio -values, consumers' attitudes affect their online payment method usage intention more than perceived usefulness or perceived ease of use. Thus, hypothesis 1 is not supported. Direct effects can be found in figure 2.

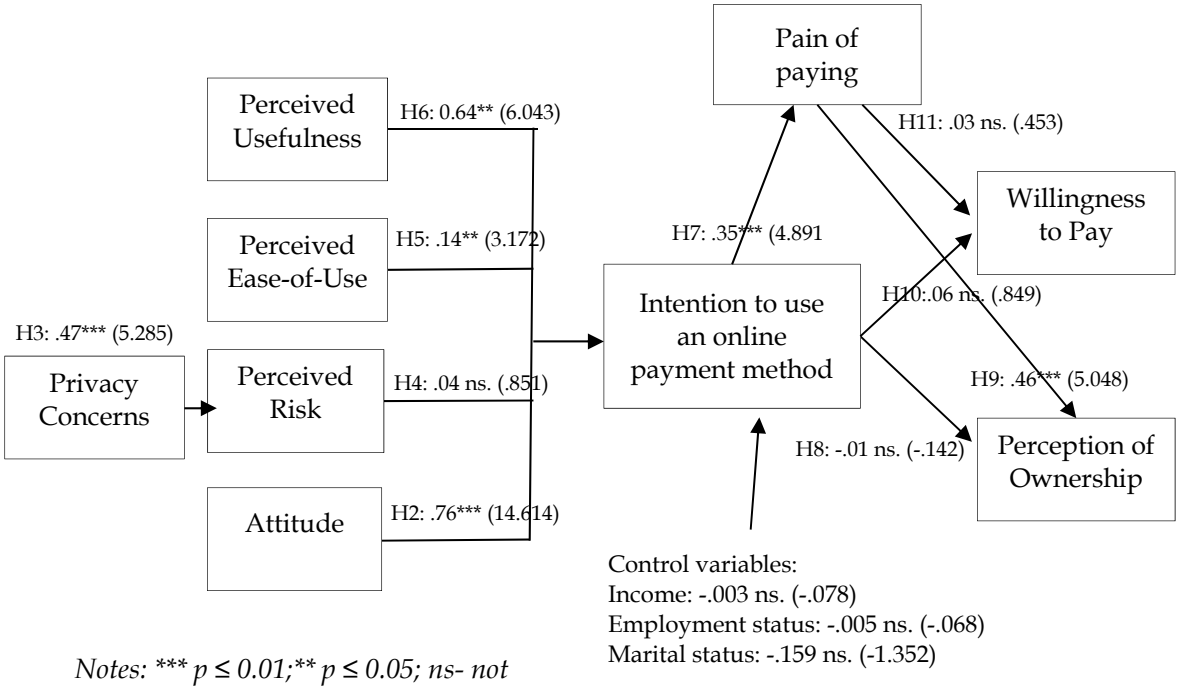


Figure 2: Path coefficients, direct effects

Moderator is an interaction effect that explains "when" two variables are related. If moderating effect exists, the relationship between two variables changes in direction or magnitude when a third variable is introduced to the

relationship. (Chen 2012.) In other words, moderation exists when effect of an independent variable on a dependent variable depends on the values of a third variable (Hair et al. 2016). One moderating effect is already clearly noticeable above, where the total effect between intention to use a payment method and perception of ownership clearly depends on pain of paying variable, because the direct effect is controversially not significant.

Total effects also revealed interesting results that were not hypothesized in this research. Based on the path coefficients there was a significant negative effect between monthly income and perceived risk of a payment method (β=-.077, p<.05), and significant positive effect on willingness to pay (β= .127, p< .05). Pain of paying was also significantly affected by attitude (β=.253, p<.01), and perceived usefulness (β=.464, p<.01). Attitude towards the payment method (β=.108, p<.05) and perceived usefulness (β=.197, p<.05) also significantly affected the perception of ownership towards the object.

4.3.2 Direct effects under payment conditions

In this research the results of usage intention of payment methods and their effect on buying behaviour might vary between payment methods. After examining consumer's intention to use a payment method within payment method conditions, some differences in results can be noticed. Perceived risk did not significantly affect the intention to use an online payment method under any condition. However, controversially, attitude had an effect on usage intention for every payment method. The effect of attitude was strongest under internet banking condition and secondly under invoicing condition followed by credit card condition. Perceived ease of use was found to be significant under invoicing condition and perceived usefulness under PayPal condition.

Usage intention was found to significantly affect perception of ownership under credit card condition and willingness to pay under invoicing condition. Pain of paying was significantly affected by usage intention under credit card, internet banking and invoicing conditions quite respectively. The effect under PayPal condition was, however, not significant. Willingness to pay was not found to be significantly affected by usage intention under any conditions. However, perception of ownership was effected under credit card, internet banking and PayPal conditions. The effect was strongest under credit card condition.

Table 8: Path coefficients under payment conditions

	β	***t*-value**	
Perceived Usefulness → Usage intention			
Credit card –condition:	-.024 ns.	-.359	→ Hypothesis not supported
Internet banking –condition:	.014 ns.	.359	→ Hypothesis not supported
PayPal –condition:	.085**	2.084	**→ Hypothesis supported**
Invoicing –condition:	.047 ns.	.859	→ Hypothesis not supported
Perceived Ease of Use → Usage intention			
Credit card – condition:	.043 ns.	.945	→ Hypothesis not supported
Internet banking –condition:	.056 ns.	1.461	→ Hypothesis not supported

PayPal –condition:	.053 ns.	1.662	→ Hypothesis not supported
Invoicing –condition:	.106**	2.757	→ **Hypothesis supported**
Perceived Risk → Usage intention			
Credit card –condition:	-.015 ns.	-.361	→ Hypothesis not supported
Internet banking –condition:	.014 ns.	.675	→ Hypothesis not supported
PayPal –condition:	-.009 ns.	-.361	→ Hypothesis not supported
Invoicing –condition:	.043 ns.	1.571	→ Hypothesis not supported
Attitude → Usage intention			
Credit card –condition:	.453***	4.604	→ **Hypothesis supported**
Internet banking –condition:	.473***	9.481	→ **Hypothesis supported**
PayPal –condition:	.279***	4.399	→ **Hypothesis supported**
Invoicing –condition:	.376***	5.155	→ **Hypothesis supported**
Usage intention → Perception of Ownership			
Credit card – condition:	.304**	2.365	→ **Hypothesis supported**
Internet banking –condition:	.131 ns.	1.092	→ Hypothesis not supported
PayPal –condition:	.090 ns.	.704	→ Hypothesis not supported
Invoicing –condition:	.092 ns.	.665	→ Hypothesis not supported
Usage intention → Pain of Paying			
Credit card –condition:	.467***	3.920	→ **Hypothesis supported**
Internet banking –condition:	.358***	3.442	→ **Hypothesis supported**
PayPal –condition:	.019 ns.	.151	→ Hypothesis not supported
Invoicing –condition:	.485***	3.995	→ **Hypothesis supported**
Usage intention → Willingness to pay			
Credit card condition:	.058 ns.	.431	→ Hypothesis not supported
Internet banking –condition:	.146 ns.	1.220	→ Hypothesis not supported
PayPal –condition:	-.002 ns.	-.019	→ Hypothesis not supported
Invoicing –condition:	.312**	2.029	→ **Hypothesis supported**
Pain of Paying → Willingness to pay			
Credit card -condition:	.028 ns.	.180	→ Hypothesis not supported
Internet banking –condition:	-.023 ns.	-.178	→ Hypothesis not supported
PayPal –condition:	.200 ns.	1.580	→ Hypothesis not supported
Invoicing –condition:	-.103 ns.	-.671	→ Hypothesis not supported
Pain of Paying → Perception of Ownership			
Credit card –condition:	.586***	4.758	→ **Hypothesis supported**
Internet banking –condition:	.372**	3.021	→ **Hypothesis supported**
PayPal –condition:	.326**	2.683	→ **Hypothesis supported**
Invoicing –condition:	.223ns.	1.427	→ Hypothesis not supported

*Notes: *** $p \leq 0.01$;** $p \leq 0.05$; ns- not significant*

5 DISCUSSIONS

This chapter discusses the theoretical and empirical contributions of the research. The chapter also includes the research evaluation and limitations. Furthermore, the suggestions for future research are given.

5.1 Theoretical contributions

The aim of this study was to better understand consumer's online payment behaviour. Specifically, the research aimed to grasp what aspects affect usage intention of four different online payment methods. Furthermore, the research intended to discover if payment behaviour had an effect on consumer buying behaviour, especially willingness to pay, perceived ownership and pain of paying.

According to the previous research, the most popular online payment method is credit card (O'Mahony et al. 2001). However, based on the results of this study, respondents were much more likely to use internet banking than any other online payment method. Credit cards were rated as the second highest on usage intention scale, followed by invoicing. The intention to use PayPal was rated as weakest. The results were consistent with the previous research in some parts, but not in all. For example demographics were not found to significantly affect the usage intention of online payment methods. However, income did have a significant negative effect on perceived risk and positive significant effect on willingness to pay. However, due to the small sample size and uneven distribution on almost all demographical variables, conclusions of demographical effects on online payment method usage intention cannot be drawn.

Usage intention of online payment methods was found to be affected most strongly by attitude towards the payment method. Attitude was also found to be the only attribute to affect the payment usage under all conditions. These results are contradictory to many previous studies that claim the characteristics of payment methods should affect the usage intention more than consumer's own features (e.g. Schuh & Stavin 2012; Chen 2008). However, many researchers also agree with these findings and believe consumer's characteristics are the strongest indicators for payment method usage intention (e.g Jonker 2007; Crow & Staten 1999; Borzekowsi, Elizabeth & Shaista 2008). Some authors even believe positive attitudes to be the strongest predictors for payment method usage intention (e.g. Khan et al. 2015).

Perceived usefulness was also found to significantly affect payment method usage intention (e.g Schuh & Stavins 2012; See-To et al. 2014; Ching & Hayashi 2010; Hernandez et al. 2017, Chen 2008), and the effect was found to be second strongest of all constructs. However, after evaluating the effect under various

payment method conditions, the effect was found significant only under PayPal condition. This might be, again, quite obvious, because in order for a consumer to use PayPal, they already have to own either a payment card or online banking details. For the consumer then not to directly pay with these payment methods, and to choose to pay with PayPal must be reasoned. However, further analysis on this topic was not considered in this research, and the results cannot be further explained.

Intention to use an online payment method was also found to be affected by perceived ease of use. This finding was also supported by many previous researches (e.g. Chen 2008; See-To et al. 2014; Jonker 2005). However, when evaluating direct effects between various online payment methods, perceived ease of use was only found significant under invoicing condition. This might be because respondents rated all other three online payment methods substantially easy to use regardless of their intentions to use them. The usage of invoicing, furthermore, differs most drastically from other online payment methods. Therefore, it is understandable that other three payment methods were rated similarly on this feature.

The most unexpected result, however, was that there was no significant effect between perceived risk and intention to use an online payment method. Even though consumers under PayPal condition did find the method to be riskier than respondents under other groups, this effect was still not significant. Most of the previous studies do not agree with these findings (See-To et al. 2014; Jonker 2005; He & Mykytyn 2008). However, after studying the results on items of perceived risk, the respondents answered quite similarly, which is supported by previous findings (e.g. Rysman 2009). The respondents found online payment methods not to have significant security issues, and, therefore, perceived risk should not significantly affect consumer's intention to use a paying method. This is supported by previous research (e.g. Schuh and Staving 2016). Some previous research indicates that previous internet experience affects perceived risk (e.g. Liao et al. 2011). This was however not the case in this research, since previous internet shopping experience was not found to significantly affect perceived risk. Privacy concerns were, nevertheless, found to positively affect perceived risk of online payment methods as suggested by previous research (e.g. Chen 2008).

Usage intention of payment methods was found to significantly affect pain of paying. This is again supported by numerous previous studies (e.g. Zellermayer 1996; Thaler 1999). The effect on pain of paying was additionally significant under credit card, internet banking and invoicing conditions. Pain of paying was also found to be affected by the attitude towards the payment method and perceived usefulness. The direct effect on perception of ownership was not substantial. However, the total effect was found to be significant, which is supported by previous studies (e.g. Richins 1994; Kamleitner & Erki 2013; Shah et al. 2015). Perception of ownership was also found to be significantly affected by attitude towards the payment method and perceived usefulness. Further analysis additionally showed that usage intention had a significant effect on perception of ownership under credit card condition.

The effect on willingness to pay was however not significant, even though, under invoicing condition, this effect was found to be somewhat significant. The effect of pain of paying on willingness to pay was also not significant. The connection between willingness to pay and pain of paying depends on the transparency of the payment method (Raghubir & Srivastava 2008), which might be difficult to grasp, because online payment methods are already extremely transparent. Therefore, the fact that online payment methods did not affect willingness to pay in this research might be because they are very similar in their transparency form. Consequently, it might be that the pain felt when paying online cannot be reduced by choosing between credit card, invoicing, PayPal or internet banking. The results also indicated that the usage intention, pain of paying and perception of ownership do not significantly explain willingness to pay. Consequently, further studies of willingness to pay in online context are needed.

Nevertheless, pain of paying had a positive significant effect on perception of ownership. This was also supported by further analysis under each payment condition. The effect was strongest under credit card condition, followed by internet banking and PayPal conditions. Under invoicing, the effect was, however, not significant.

The results of the second part of the questionnaire, which was however not included in the final structural model, also indicate that there is a connection between the paying method, preferred payment time and pain felt when paying. The results show that respondents who had rather pleasurable feelings about the purchasing situation, favoured credit cards over other paying methods and would choose to pay as soon as possible more often than other respondents. Respectively, invoicing and internet banking were more popular among those respondents who felt more negatively about the purchase. Those respondents would also choose to postpone the payment more often than others. In some tests there was even a slight noticeable connection between the amount respondents were willing to pay for a product and pain felt when paying, indicating that respondents who found the purchasing situation more positive, were willing to pay more than others. However, the relationship between payment behaviour and willingness to pay needs to be studied more thoroughly in order to gain more reliable and generalizable results on that part.

Therefore, according to the results of this research usage intention of online payment methods are affected by attitudes, perceived usefulness and perceived ease of use. Furthermore, usage intention has a strong positive effect on paying of paying and perception of ownership. Next, the managerial implications of these results are presented.

5.2 Managerial implications

Understanding consumer's payment behaviour has many benefits for online retailers and online payment method providers. The managerial purpose of this

research was to understand how consumers perceived various online payment methods, how they choose between them, and how different payment methods might affect consumers' spending. It is important for both parties to understand how various payment methods are perceived and how these perceptions affect the usage intention. Furthermore, knowing how different payment methods might affect how satisfied consumers are with their purchases is essential for online retailers.

This study provides support for offering the four most popular online payment methods. Internet banking rated as highest on the intention to use scale of all the four payment methods. The second highest rating was for credit card payments, followed by invoicing. PayPal was rated lowest on the usage intention scale.

Based on the payment methods' usefulness and ease of use levels, all payment methods rated quite highly on all of the attributes. Additionally, all payment methods were rated quite low on perceived risk levels. PayPal was the only payment method that was perceived riskier than other payment methods. However, the perceived risk was still not found to significantly affect the adoption rate. Nevertheless, it might be important for companies to be aware of this fact if they choose to include PayPal in their offered payment methods. It is important to include also other payment methods that consumers perceive safer to use in order to guarantee the optimal payment methods for consumers. Even though this study did not try to understand how offered payment methods might affect purchasing intention, it is still important fact to take into consideration when choosing the payment methods on one's online retail store. It should also be taken into consideration why consumers perceive PayPal riskier than other payment methods. After all, PayPal is marketed to be the safer payment option than others, since the consumer does not have to provide their card details directly to retail stores.

Based on the perceived risk ratings, companies should undoubtedly accept payments through internet banking and credit cards in their online retail store. The second part of the questionnaire also revealed that consumers did prefer to postpone the payments when the purchases were found to be unpleasant. This again supports the proposition to offer credit card payment methods on one's online retail store, but it also indicates that invoicing might be an important payment method for these kind of situations as well. Especially online stores that offer products that might not be purchased for pleasurable reasons should offer payment methods that allow postponing the payment.

It is also important for companies to recognize that especially intention to pay with a credit card had a significant positive effect on perception of ownership. This indicates that consumers who choose to pay with credit cards should be more satisfied with their purchases than consumers who pay with other methods. This again supports the claim that online retail stores should include credit cards in their payment options.

Payment methods also had a significant positive effect on pain of paying. The only payment method that did not have a significant effect on pain of paying

was PayPal. Even though PayPal is not as popular or found as safe as other payment methods, this attribute brings companies much positive outcomes and, thus, supports the claim that online retail stores should still keep PayPal in their offered payment options. However, even though credit cards, invoicing and internet banking were associated with pain when paying, this is not necessarily a bad thing. Pain of paying significantly affects the perception of ownership, meaning the more painful the paying was found, the more the consumers felt they were connected with the purchase.

The research also found some support for the claim that payment behaviour affects spending behaviour. However, to be able to satisfactorily confirm these results further investigation is recommended. Nevertheless, the results did indicate that usage intention of invoicing payment method had a significant positive affect on willingness to pay, indicating, that consumers who would pay with invoicing, were likely to choose higher prices on willingness to pay scales. Additionally, the second part of the study did find some support to the claim that pain of paying is also connected to willingness to pay. Managers are, therefore, facing an interesting dilemma, since consumers who feel strong pain when paying are willing to spend less for the purchase, but then again, their perception of ownership rates should be higher than of those who do not feel pain when paying. Thus, it is suggested to offer both painful and painless payment methods on online retail stores. Additionally, retailers who offer more expensive products should offer invoicing payment method.

For payment method providers it is also important to take into consideration that attitude, perceived usefulness and perceived ease of use were found to be the main influencers on online payment method usage intention. Online payment providers should construct their payment methods to have as few steps as possible. However, since all popular online payment methods already have very few steps, it might be difficult to compete in this area. Indeed, perceives ease of use was found significant only under invoicing condition, and credit cards, internet banking and PayPal were found to be similar in this aspect. New innovations need to be perceived as better than their predecessors. Therefore, in order to be able to compete in easiness to use field, the online payment providers might have to make also the adoption of new payment methods perceived as easy and simple as possible.

Perceived usefulness was additionally found to be significant only under PayPal condition. This is important aspect for payment method providers, since most of them are marketing the payment methods to be safe and riskless, when these constructs were not found to be affecting usage intention at all. As a result, payment method providers should market their payments from their usefulness aspect in order to gain more reception.

5.3 Evaluation of the research

The quality of quantitative research method can be evaluated through its reliability and validity. Reliability can be tested through internal consistency, which can be determined through Cronbach's coefficient alpha. Reliability measures the functionality of constructs and if the results could be repeated. (Mertens 2014, p.397-398.) Cronbach's coefficient alphas were measured for every construct and were presented earlier in the results chapter. Based on the values the sufficient reliability of the research is confirmed. Reliability of internal consistency can also be tested through Construct reliability (Hair et al. 2016). The CR-values were all above the minimum of .70, indicating that the reliability of the research can be satisfactorily confirmed.

However, the quality of the research cannot be established through only its reliability. The second construct of quality is validity, which is the extent to which the research measures what it is intended to measure. Validity can be assessed through construct-, internal and external validity. (Mertens 2014, p.399.) Construct validity indicates if the items in an instrument that is designed to measure a specific trait actually measure that attribute. It can be measured through factor analysis through exploring factor loadings and further confirming whether the achieved constructs are truly distinct from each another. This can be tested with average variance extracted (AVE) and square root of AVE. (Hair et al. 2016). The values of the AVE-test indicated a good construct validity.

Internal validity measures if the changes in the dependent variables are truly effected by the independent variables (Mertens 2014, p.129). In other words, it measures the causality of constructs. There is no purpose to suspect the internal validity of this research, because the relationships between concepts that were chosen to this research were suggested by multiple previous studies. External validity means the results of the research are applicable to other situations. In other words, it allows the results to be generalized (Mertens 2014, p.133, 270.) Therefore, limitations of sampling must be taken into account when interpreting the results. The sampling was unfortunately not randomly picked, but rather conveniently collected. The demographics demonstrate a clear dominance of female respondents. Most of the respondents were also in their 20s and currently studying, which also had an impact on the distribution of monthly income and marital status in the data. Additionally the sample size was quite small, especially under different payment conditions. The results of direct effects under payment conditions cannot be certainly generalized to concern the chosen online payment methods due to the small sample sizes under various conditions, nor can the overall results be generalized to the whole population, due to the weak representation of male and older respondents.

5.4 Limitations and future research

One of the main limitation is the sample size and sampling method of the study. The questionnaire was filled by 244 respondents, which alone for one payment method would have been sufficient with a normal distribution of demographical variables. However, the questionnaire was constructed of four sub-questionnaires, with different payment methods. This made the length of the questionnaire appealing to the respondents, but it did shrink the sample size for each payment method quite substantially. However, in order to gain more respondents, the questionnaire should have been kept open for multiple weeks or months, which was not possible due to time constraints.

Because of the convenience sampling method, the distributions were skewed on all demographical variables. In order to gain more generalizable results, a normal distribution for all variables under all payment method conditions is required. With Qualtrics program, it was only possible to randomly assign payment methods to respondents, and, therefore, an even distribution of demographical variables under conditions was not able to be confirmed with that specific questionnaire program provider.

The items that were chosen for this research were originally written in English language. However, since the questionnaire was distributed in Finland, the items were required to be translated in Finnish language. This understandably might reduce the validity of the chosen measures, since the exact translations are not possible. The questionnaire was also constructed in a way that it required and assumed that the respondents were concentrated on the questionnaire while answering. It was also assumed that the respondents read the long description texts and imagined all the situations as specifically as possible like they were asked to do. The results on perception of ownership might, therefore, be distorted because the respondents were not imagining as specifically as the research required them to. Therefore, for future research it might be necessary to observe true purchase situations rather than ask respondents to imagine them in order to get more reliable results. This is of course applicable also to the results of willingness to pay and pain of paying, where the results cannot be completely comparable to real purchase situations. Previous findings also suggest that perception of ownership gets stronger over time. The fact that the respondents were asked to rate their perception of ownership towards the objects almost right after the imaginary situation, might have an effect on the results. For the future research it would be interesting to study if the perceptions of ownership would increase after time and how various payment methods might have an effect on it.

Consequently, future research should require a much bigger sample size and use better sampling method. Additionally a true purchase situations are going to give more reliable results than imaginary ones. However, future research should also take into account how pain of paying might affect usage intention of paying methods. It would be interesting to know if consumers tend

to choose specific payment methods for more painful paying situations than for pleasurable purchases. Previous research has also indicated that consumers with higher perceived risk towards online shopping find "pay on delivery" scheme more appealing than others. Therefore, invoicing should be more popular payment option for those kinds of consumers. Thus, future research should not only take into account the consumers' perceptions towards payment methods, but also the perceptions towards whole online shopping concept, and how this affects the intention to use various online payment methods.

According to the results of this research, usage intention and pain of paying did not significantly explain the variations in willingness to pay. As a result, further investigations on WTPs, especially in online context, need to be taken. Most of the previous research on WTP are conducted through experimental research methods, where respondents are required to bid or purchase something with cash, credit cards or coupon codes. WTPs have not been studied enough in online domain. It is quite possible that the results of this research are valid, and the same constructs that affect consumers' WTPs when paying with traditional paying methods do not have an effect in online purchases. Therefore, comprehensive studies on this field must be taken.

This research did also not take into account how different paying methods affect purchase intention. It would also be interesting to see, if the lack of some payment methods would significantly decrease the consumer's probability to purchase. Furthermore, it would be interesting to see how the results would vary, if the respondents were asked to rate a payment method that they are not so familiar with. The questionnaire could also be alternated in a way that some respondents are given more information, for example of the security issues of payment methods, when the other respondents are supposed to rely on their own experience and knowledge. The information could be given, for example, in a news form, where respondents have to read an article of real life security issues of online payment methods. It would be interesting to see if perceived risk would then have an effect on usage intention or not.

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APPENDIX 1: LIST OF SURVEY ITEMS IN ENGLISH

Usage Intention (Chen 2008)
[UI1] I intend to use … when it is available to me.

Perceived Usefulness (Davis 1989)
[PU1] I believe using … would improve my shopping experience.
[PU2] I believe using… would improve my shopping effectiveness.
[PU3] I believe using… would improve my shopping productivity.
[PU4] I believe using… would make it easier for me to shop.
[PU5] I believe I would find … useful.

Perceived Ease of Use (Davis 1989)
[PEU1] I believe learning to use … would be easy for me.
[PEU2] I believe that … would be easy to use.
[PEU3] I believe that when I use … the process will be clear and understandable.
[PEU4] I believe it would be easy for me to become skilful at using …
[PEU5] I believe that … would be flexible to use.

Perceived Risk (Chen 2008)
[PR1] In general I believe that it would be riskier to use …
[PR2] Compare to traditional payment methods, I believe using … is riskier
[PR3] I believe there will be high potential loss associated with using …
[PR4] I believe there will be too much uncertainty associated with using …
[PR5] I believe that using … will involve many unexpected problems.
[PR6] I believe that the companies enabling me to use … will protect my interests. (Reverse coded)
[PR7] I would feel safe using… (Reverse coded)

Privacy Concerns (Chen 2008)
[PC1] I am concerned about the amount of personal information I will be required to provide when using …
[PC2] I believe that my personal information stored in the databases for … will be protected. (Reverse coded)
[PC3] I believe that my personal information stored in the databases will be accurate. (Reverse coded)
[PC4] I believe that the personal information I provide for the … will only be used for the purposes I authorise. (Reverse coded)
[PC5] I believe using … will put my privacy at risk.

Attitude (Huang, Lee & Hsun Ho 2004)
[AT1] Using … is a better choice.
[AT2] I like using …
[AT3] Using … generally benefits the consumer.
[AT4] There is nothing wrong with using …
[AT5] I never consider using … when choosing the payment method. (Reverse coded)

Perception of Ownership (Peck & Shu 2009)
[POP] I feel like I own this washing machine.
[POK] I feel like I own this coffee machine.

Willingness to Pay (Monroe 1971)
Select a price that you believe to be (for a product x):
[WTP1] Not acceptable, because clearly too cheap.
[WTP2] Not acceptable, because too cheap.
[WTP3] Acceptable, but quite low.
[WTP4] The most acceptable price.
[WTP5] Acceptable, but quite high.
[WTP6] Not acceptable, because too expensive.
[WTP7] Not acceptable, because clearly too expensive.

Pain of Paying (Zellermayer 1996)
How Painful vs. Pleasurable would you find the described purchase situation.
(Answered on a 9-Point Likert scale: -4 - +4)

Previous Purchase History
How often have you purchased something online during the last year?
"Not at all."
"1-2 times."
"3-6 times."
"7-10 times."
"More than 10 times."

Employment status
Fully employed
Party employed
Unemployed
Student

Education:
Primary school
High school
Vocational school
University of Applied Sciences
University

Monthly Income (gross)
0-599
600-999
1000-1599
1600-1999
2000-2599
2600-2999
3000-3599
3600-3999
4000 or more

Marital Status
Single
Married
Registered partnership
Divorced
Widow

Age [open]

Note: All items, except Age, Education, Employment and Marital Status, Previous Purchase History, Monthly Income, WTP and Pain of Paying were answered on a 7-Point Likert scale from strongly disagree to strongly agree.