How contactless payments are influencing consumer behavior in on-the-go consumption in a cash-free society?

A study with the focus on habitat of Sweden

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Abstract

Background: The digitalization of personal banking is a fast ongoing process. Along with that, contactless payments are a recent topic within this research field. Controversy and questions appeared within this topic. The new modes of payment are designed to be quicker and easier than traditional card payments. On the other hand, the authors of this thesis want to examine if a contactless method of payment has any influence on consumer behavior. Another growing trend in today's fast-paced society is on-the-go consumption. It has become increasingly common to consume food and beverages in situations as rushing to work, free time in between meetings, or between work and the gym. Therefore the authors want to examine how the new possibilities of contactless payment methods influence this type of consumption where the consumer is often time-sensitive.

Purpose: Within this thesis paper, the aim is to connect previous literature on consumer behavior and the more recent technology of contactless payments with research found on the growing consumer phenomena of on-the-go consumption. To discover if there are variables related to the mode of payment influencing the consumers' purchasing decisions and if yes, how is it applying to the customer behavior in on-the-go consumption.

Method: The research was based on the literature review of peer-reviewed articles and data provided by the Swedish National Bank, Sveriges Riksbank. Moreover, we have conducted a survey where the aspiration is to examine factors that could influence the populations' behavior when it comes to contactless payment in a cashless society. The survey data will ideally be collected on a sample fairly representing several different age groups, educational levels and nationalities to be able to find preference differentiations based on background.

Conclusion: As the statistical analysis was performed, three out of five hypotheses were accepted. This action confirmed that there are factors that are influencing consumer behavior when it comes to contactless payments. Factors such as impulse buying and age are making a more significant impact on on-the-co consumption and the usage of contactless payment methods than factors such as city size or development of the technology.

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1. Introduction

In the following chapter, the reader is introduced to the topic of contactless payments and their influence on customer behavior. At the beginning of this section, the authors will examine the research question and analyze the relevant topics. The main focus will be on the factors that influence consumer behavior when it comes to the usage of contactless payment methods. This chapter will also explain why the concept of a cash-less society was brought up here. Subsequently, the given topic is identifying a gap in the research within factors that influence consumer behavior while using the contactless payment method. Lastly, the purpose, perspective, delimitation, and definitions are presented.

1.1 Background

When finding the topic for this bachelor thesis, the aim was to look at how banking digitalization influence everydays' consumption patterns in terms of the Swedish population. Sweden is one of the countries in the world where cash payments are the least used method of payment, and digital ways of making everyday transactions are widely adopted (European Payments Council, 2019). Contactless payment options are a common way of payment for the Swedish citizens. However, The research done on this topic is limited. In order to define a segment of consumption where this payment method could impact consumer behavior, the following concept was used. On-The-Go consumption is a segment where most of the transactions are likely to be under 350/400 SEK, which is the limit for making a contactless payment without punching in the code for many Swedish banks and card issuers, for example, ICA Bank (ICA Bank, 2018) and Swedbank (Swedbank, n.d.).

An increasing desire for quick and easy purchases has led to the amount of food and drinks consumed on-the-go growing worldwide. On-the-go Consumption involves the purchase of food and beverages while in transit from one place to another. The term away-from-home consumption comprises the action of purchasing food or beverage outside individuals' homes (Nayga & Capps, 1992). Therefore, it is connected to the OTG Consumption but, at the same time, to more expensive restaurant visits. As a given situation represents a particular type of away-from-home consumptions and involves distinct consumption patterns, it requires separate investigation. There are four determinants of OTG purchases, such as time pressure, price consciousness, health orientation, and enjoyment (Benoit, Schaefers & Heider, 2016).

According to a paper written by Thomas, Desai & Seenivasan (2011), the card payment is less painful for the consumer and weakens their strength to resist impulses. Consequently, it causes people who pay by a credit card to be more likely to buy unhealthy food than those who pay by cash. Paying in physical money has a more significant pain of payment compared

to other modes of payment. Given that card payments increase the purchase of unhealthy food, it should also have an impact on OTG consumption as a large portion of this segment is made up of unhealthy options.

The first big test of implementing a chip into the cards took place on the Barclaycard's Edinburg campus headquarters. This process was used to allow finalizing the transaction by touching the card to the card reader. After the success, Barclaycard's OnePulse concept was released where they connected Visa payment cards with public transportation in London (Olsen, 2008). The primary purpose was to speed up the process of purchasing the tickets, which would cut the time spent in the queues. With the success of the first release of contactless payments, by the end of 2008, more banks joined participation in this project. The partnership was offered by eight significant banks of the United Kingdom, such as Bank of Scotland, HSBC, Royal Bank of Scotland Group (RBS) and Lloyds TSB among others. With this new technology, the first initiatives were presented to install the card readers that can accept the blip payments. At that point, more companies and industries such as quick-serve food places have decided to join the OnePulse contactless scheme. One of the first companies that adapted to that system was McDonald's and small coffee shops that operate in big cities like the Coffee Republic. One of the motivations for stores to accommodate to the changes was the aim to reduce crime (Olsen, 2008).

1.2 Problem Discussion

Controversy and questions around safety have surrounded contactless payments. The purpose that the contactless payment is holding is to be a mode of finalizing the transaction that is quicker and easier than traditional card payments. While implementing this method of payment, it is common to observe the halo effect, which is showing the decrease in cash payment activities and the increase of contactless ones (Westland, 2002). Consequently, this motivates an increase in customer satisfaction, which is very important in highly competitive retail markets. Along with this advantage, it has other results such as eliminating cash shrinkage, reducing error when it comes to manually processing cash, and reducing the risk of theft. Consequently, consumer behavior was also influenced by these actions. The customer gained more trust in cashless payment methods, which resulted in the satisfaction of the shopping experience (Olsen, 2008).

Mastercard's PayPass was one of the first debit cards that have introduced the contactless payment method with the help of HSBC Bank plc (HSBC, 2005). Through implementing the chips into the debit or credit cards, customers were able to execute the transaction only by tapping the terminal. Among the leading merchants that went towards the new method of payment were McDonald's, 7-eleven stores, or Regal Entertainment Group theatres (HSBC, 2005). However, after the implementation of the first contactless cards, some limitations occurred. The companies needed to modify the card readers to be able to accept the purchases under $20 without the entering of a Pin code by the customers. Moving on with the plans towards contactless payments, future considerations of the roles of mobile phones

in this process started to occur. Smartphones were presenting so much potential that they could be used as a wallet and execute all the payments (De Kerviler, Demoulin & Zidda, 2016). Japan took the first step in that area. They have implemented chips used as a payment system for Sony's mobile phones. The system was called the Felica. It was based on a near field communication (NFC) that was used later on for all kinds of contactless payments (Olsen, 2008).

The Swedish market is unique as one of the first societies that are by some predicted to go utterly cash-free within the near future. A selection of movie theaters, restaurants, coffee shops, and clothing stores has decided not to accept cash as a mode of payment, and most bank offices do not handle physical money anymore (Arvidsson, 2019). The national bank of Sweden has launched a project called the E-Krona, looking for ways to develop a government secured digital currency as the traditional government secured cash has seen such a sharp decline (Sveriges Riksbank, 2019). Consequently, E-krona is aiming to become an alternative for bank-secured money that can be stored in a digital way. Additionally, since this thesis was written in a university located in Sweden, the choice to research this market was made. As the research performed on the Swedish market as a study of the usage of contactless methods of payment is limited, the assumption was made that it will be a good market to investigate.

1.3 Purpose

The thesis is aiming to explore how contactless payments are influencing consumer behavior in the chosen type of consumption. There is existing research on the cashless society and contactless payments. Still, there is a lack of studies within the factors that are influencing consumer behavior while using this payment method. Due to the specific setting of Sweden being a nearly cashless society, this will be a study of consumption patterns within a particular market. The main focus will be on cases where the consumer is often time-sensitive. Consequently, the research question that we have chosen to work is "how are contactless payments influencing consumer behavior in on-the-go consumption in a cash-free society?". The aim is to help in understanding the factors motivating customer willingness to purchase when it comes to the usage of a contactless method of payment. The thesis hopes to find results that can be useful for banks, financial institutions, and companies working with this form of consumption. Since this touches on consumption behavior, it could as well include interesting findings for the private consumer and society.

1.4 Perspective

This research is taking the perspective of the society, and it is relevant for retailers and bankers/card issuers as it is explaining the behaviors of their customers and how this can be influenced. However, as the entire study shows this from society's' perspective, this is adding to consumer behavior theory, which is a part of business psychology literature. By better understanding the patterns of the consumer and consumers themselves being made

aware of the heuristics and could be more aware of their unconscious decisions. The research is conducted in the time frame of 2020, and the results could be changed drastically if this research was to be repeated in a future time perspective due to the rapidly changing nature of the business climate.

1.5 Delimitation

This research will not go into the relationship between contactless payment methods and any other type of consumption except for OTG. It will neither be applicable to the countries that do not maintain the same cashless environment as Sweden. However, this research can be used as a guideline for what is to come for countries or regions that are moving towards reducing and eventually eliminating of the usage of cash.

1.6 Definitions

In this thesis, we are using a few new concepts. To facilitate understanding of them, we are going to examine them to give a clear explanation of why there are used in the following thesis paper. Throughout a small introduction of these concepts, the authors of this thesis believe that the reader could already see a possible correlation between the subjects.

1.6.1 Cashless society

The cashless society is a novel concept of population. It claims that within this kind of society, people will use more digital options as a payment method rather than pay by cash (Arvidsson, 2019). They do not likely have cash with themselves, and card payments are their first choice to use.

1.6.2 Contactless Payments

Contactless payment is a process where a physical purchase is made, and the payment transaction is conducted by the purchasing party holding a card, physical or digital in close proximity of the payment terminal. If the amount is below a certain limit, it is usually not necessary to enter a pin code, and the transaction is approved if the cardholder has enough money in the bank or available credit if the card is a credit card. If the amount is above the limit, the customer will be required to enter the pin code, and the transaction will be approved if the cardholder holds sufficient funds (the UK Cards Association, n.d.).

1.6.3 On-The-Go (OTG) Consumption

The main characteristic of on-the-go consumption is that those purchases are being executed unplanned, mostly under time pressure (Sands et al., 2019). Such kind of consumption is common while relocating from point A to point B. Those purchases can often be known as fast food or drinks such as coffee or tea to buy while traveling.

2. Frame of Reference

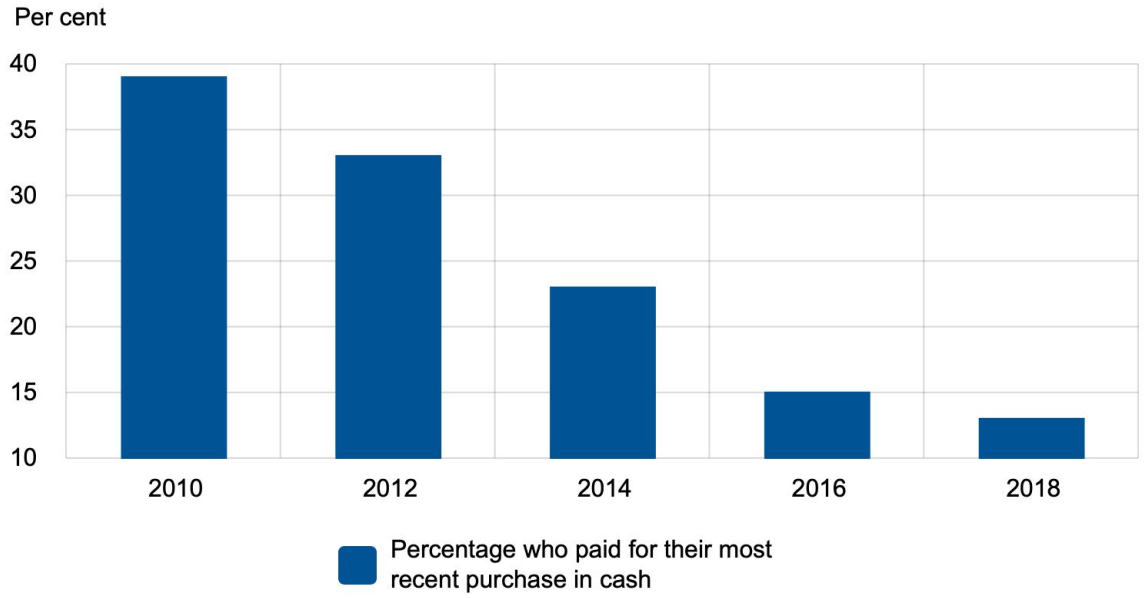
The second chapter will present the relevant research that was already performed within the topic of contactless payment. The aim is to go through the possible research gap within the Swedish market in the area of payment methods. However, to do that, the data that already exists in the marketplace is going to be used. Moving forward, the concepts of on-the-go consumption and cashless society will be presented. Last but not least, the factors that are known to influence an individual's behavior will be stated and how they are related to the research question. The end of this chapter will present the measurement of consumer perception when it comes to payment modes.

2.1 Gap of the Research Within the Swedish Market

The research question of the presented thesis began with the consideration of the research gap within this topic. The literature used in the submitted study was conducted from different countries. One of the first steps was to search for data on the Swedish market, which consequently provided the current statistics of the market offered by Sveriges Riksbank, which is the Swedish national bank. In that data, the characteristics are confirming the assumption made by the authors of this academic paper as Sweden being a cashless society. The usage of the cash in the payment transaction is continually decreasing, which is making Sweden one of the top countries in Europe, where citizens prefer not to use physical money. The aim is to include this data and examine if the research based on the survey will show an outcome matching the data from Sveriges Riksbank. Sweden is one of the countries with a focus on becoming a cashless society at the same time being perceived as a digital country. Most of the services are now available online. Starting with doctors' appointments and finishing with grocery shopping or takeout food (Arvidsson, 2019).

2.1.1 Data from Sveriges Riksbank

According to Sveriges Riksbank official statistics, there were just under 220 000 payment terminals in Swedish stores in 2017. These handled three billion transactions at a value of 881 billion SEK.



The graph above shows a sharp decline in cash payments in Sweden. In 2010 39 percent paid for their most recent purchase in cash. However, in 2018 only 13 percent paid for their most recent purchase in cash (Sveriges Riksbank, n.d.).

2.2 Process of Implementation of Contactless Methods of Payment

Through the adaptation to contactless payments, customers can perform small purchases only by quickly tapping their payment card to the card reader. In Europe, everything started in the United Kingdom when in June 2006, a big launch of contactless credit card payment took place by a partnership of MasterCard with the Royal Bank of Scotland (TBS) (Olsen, 2008).

Since that very first try that happened in the United Kingdom was a big success, this new method of payment started spreading inside and outside of the country. In the beginning, it involved mainly public transportation and, from that point, began to engage more parts of people's life. Through recent years the interest in contactless payment technology has been growing. Along with that, there has been a growth in interest among consumers as in the retail sector. The main focus on the changes will be expected from banks and stores to provide people places where they can pay by contactless payment method. One of the possibilities that could help in the implementation of those possibilities is cutting off the costs that retailers need to pay or giving them a more significant share of possible income (Olsen, 2008).

2.3 Cashless Society

People perceive money in the form of cash only, which has its endorsement but also opponents. However, there are many forecasts that physical money may soon disappear.

Another payment method will become more useful and practical for public use, such as mobile payment, card payment, or even coupons (Arvidsson, 2019).

To understand the whole concept of the cashless society, some definitions of money, in general, should be presented. Consequently, the first most common definition of money is defining money as a kind of medium of exchange, then can consist in different forms, but the most common one is as a coin (Arvidsson, 2019). After letting a closer understanding of money as a general concept, we can discuss more profound facts about this topic. Economists claim that money must meet three functions in order to be effective (Arvidsson, 2019). In the beginning, capital should be recognized and function as a method of payment to empower the transactions. The second function that the money should fulfill is a standard of value. This function is aiming to help in comparison of different products or services such as the value of specific house equipment or a glass of wine. Lastly, it should be a gathering of stable profits. What can be referred to is the fact that people should be sure about the stability of the money and that this virtual or paper object that they own has a permanent value that they can use to exchange it into products or services.

When it comes to the recognition of the aspect of the cashless society, the critical element is to recognize the functions and forms of money. The first and most important fact is that a central bank backs money (Arvidsson, 2019). Under this point, readers can notice different forms of the bills and coins that holders own as a debt for a central bank. However, the structure of those accounts is not associated with money. But that fact is not changing the statement of those accounts still being considered as a part of money transactions. Moving forward to the next form of money, that is banking. As a debit from the bank to the individual, people hold their money on their bank accounts and can put in and take out money whenever they want (Ingham, 1999). Nowadays, this concept is called bank money, which is aiming to be more accessible and significant than cash. The last, third form of payment is virtual currencies. They are still creating trust and value within the marketplace, however, they are gaining more and more attention (Arvidsson, 2019).

Creating a cashless society involves adoption of decentralized money. Behind this concept, we can find the many virtual methods of payments such as bitcoin, Ethereum, cryptocurrencies, virtual money, or virtual currencies that are built on software called blockchain (Barkatullah & Hanke, 2015). However, this thesis paper will not go deeply into each of these factors as it is clear to notice that the process of switching into the cashless community, the government has a significant interest and decision making power. A new phenomenon is bringing as much fear as enthusiasm (Arvidsson, 2019). Enthusiasm, since it is something new, undiscovered. Concern about the significant influence of innovation, technology, and computer-based cryptography that most people can be untrusted and unpredictable.

The trend of cash transactions has been slowly decreasing over the years. When it comes to small-value purchases, people still seem to tend to hold cash, but this appearance is less

and less common. When it comes to more significant deals, individuals rather do not have a big amount of money with them due to the crimes. The noncash transaction within the global perspective grew with 10.1% in 2016 (World Payments Report, 2018). After looking closely at the European countries, Sweden is showing unquestionably lower usage of cash. The table shows transactions made at the point of sales (POS). Examples of those transactions could be transactions made in stores. The share for most European countries is showing more than 50%, while Sweden is less than 20% (Table 1). This data is acknowledging the characteristics of Sweden being a cashless society.

Figure 1: Conceptual framework for factors influencing consumer behavior in a cashless society

The share of transactions (point of sales) of cash (in terms of value) in Europe 2017[a]

Country	Share of POS transactions cash (%)
Sweden	18
Netherlands	27
France	28
Luxembourg	30
Estonia	31
Belgium	32
Finland	33
Ireland	49
Latvia	54
Germany	55
Lithuania	62
Slovakia	66
Austria	67
Spain	68
Italy	68
Slovenia	68
Cyprus	72
Malta	74
Greece	75

Sources: Arvidsson, Hedman, and Segendorf (2018) and Esselink and Hernández (2017)

[a]The data on Sweden is based on Arvidsson et al. (2018) who did a survey with Swedish merchants, and the data on all other countries in the table is based on Esselink and Hernández (2017) who did a diary-based study with consumers in different countries in the Euro zone

The Reduction of cash is noticeable in many parts of people's life. Salaries are being executed in electronic transactions, and bills are paid mostly digitally as well. Entrepreneurs are creating online stores where people can buy almost everything. An example of such stores can be Amazon. Additionally, there are Uber and Airbnb who are organizations where the costumer are doing everything digitally, starting with executing the order and finishing on the payment transaction (Cunningham-Parmeter, 2016).

2.4 Decentralized Money

Decentralized money is another type of contactless payment method and is also known under a lot of different names. The most popular ones are Bitcoin, Ethereum, cryptocurrencies, or even virtual currencies. Cryptocurrency is a fragment of a specific value (Arvidsson, 2019). The fundamentals of Bitcoin are saved in digital tokens. A decentralized ledger controls those tokens, and hold the information available for every user of those coins. The ledgers are built on the technology called blockchain (Barkatullah & Hanke, 2015). The primary responsibility of those ledgers is to control the digital money and pay attention to the processes of money-flow, that they are legitimate and genuine. Cryptocurrencies are generated and encrypted by a software code (Yahanpath & Wilton, 2014), and move between the users as being transferred through electronic wallets. The interesting point is that a Bitcoin has its' physical counterpart. Individuals can purchase them in exchange for traditional currencies, both online or in ATMs (Dierksmeier, & Seele, 2018). Additionally, since decentralized virtual currencies have a low transaction cost, there are recognized as an alternative to existing currencies (Kim, 2015).

2.5 Blippit

Blippit is a new solution for finalizing the transactions soon launching in the Swedish market. It is known as a form of an app terminal that is aiming to complement or replace the card terminals in a cashier. The new technology removes the necessity for card usage, both physically and digitally. Additionally, it allows the payment to be "blipped" straight from a mobile app. The process is designed to enable the customer to choose the money to be drawn from their credit card, debit account, gift voucher, or if the store allows it, they could also be sent an invoice. The terminal aims to be able to automatically cash in any personal discounts or bonuses that the customer holds. The new terminals are also expected to accept blip-payments from physical cards, making it a viable option for store owners to fully replace the old terminals (Blippit, n.d.). If the old terminals were replaced, the blip-function of a card would be necessary to purchase with a physical card as the new terminals would not allow for traditional card payments. This new technology would even further develop the adaptation of contactless payments in Sweden.

2.6 Pain of Payment

The theory of pain of payment, which was first developed by Zellermayer in 1996, is a theory that is describing the psychological distress of making a payment. New payment methods have emerged, and others have disappeared. Further research has been conducted on the theory, but little research has been performed on pain of payment when it comes to contactless payment options.

2.7 Measuring Consumer Perceptions of Payment Mode

Historical associations with payment modes generate different sensitivity in mental emotions and influence the type, value, and amount of products purchased. The study has developed a measurement scale to capture consumers' cognitive and emotional associations with payment modes. The studies show positive emotions against cards. Among consumers that finalize their payments by the usage of credit or debit cards share the same need to use this specific method of payment to create social relations and gain prestige, and higher status among society (Khan, Belk & Craig-Lees, 2015).

2.8 Mobile Payments Effect on Willingness to Pay

Mobile payments are due to convenience increasing willingness to pay. However, this is contingent on personal adaptation, which in turn is dependent on the nation's existing adaptation system. The assumption is suggesting that mobile phones don't lower the pain of payment but can distract the customers' attention from the pain of payment with its' many entertaining and attention-seeking features. Convenience is considered a reliable driver, and if two payment options have the same pain of payment, the more convenient one will be the one with the highest willingness to pay (Boden, Maier & Wilken, 2020).

2.9 On-The-Go (OTG) Consumption

The ever-increasing pace of today's society manifests itself in the growing phenomena of on-the-go consumption. This concept consists of three segments that identify the heterogeneity of the OTG consumption preferences (Sands et al., 2019). Those segments are Frequent Vice, Occasional OTG, and Conflicted Health-Conscious consumers. The understanding of this subject as a subset of away-from-home consumption. This type of consumption involves the immediate purchase and use of a food or item most likely while in transit between two places, of food and beverages (Nayga & Capps, 1992). Several macro societal changes could be considered as a possibility to influence this growing trend. An example of those factors could be an increment in working hours, more extracurricular school activities, and the decreasing cost of available products. On-the-go consumption often offers consumer differentiation within purchasing options where the consumer is allowed to choose between vice and virtue products (Sands et al., 2019). Vice products give immediate consumer pleasure but contribute to long-term adverse outcomes, e.g., milk chocolate. Virtue products provide less long-term adverse outcomes but do also offer less instant satisfaction. Behavioral decision theory was used to profile consumers in terms of influential attitudinal and behavioral variables. It has been identified that OTG consumption purchasing can occur at several different locations like fast-food stores, cafés, and vending machines. This kind of consumption can appear across a range of various occasions such as main meal or snack, and times throughout the day, such as morning or evening (Sands et al., 2019).

2.10 Factors Influencing Consumer Behavior

In today's society, people are being influenced by more factors than in the past centuries. Several factors can affect behavior. Those factors are social, technological, and economical (Cristea et at., 2014). They show a control power over consumption decisions among a big part of the population. Social factors are shaping the tendency towards specific products. People are looking at social media influencers or celebrities for inspiration. Young people want to be trendy and perceived as the 'cool' ones next to their age-mates. Therefore, new technologies are playing a big part in people's lives (Capgemini, 2016). When it comes to innovation, the majority of the population is following new trends and technologies. However, a more important factor is the economic one. People within a different educational level, size of the city that they live in, accessibility to social and entertaining places such as shopping centers, cinemas or restaurants, have different economic standards and are influenced by different impulses (Kollat & Willett, 1967).

2.10.1 New Technologies

Rapid development within new technologies has simultaneously touched the methods of payment sphere along with all other technological fields. Innovation performed in payment methods facilitates new projects such as NFC, responsible codes, mobile wallets, or P2P apps (Capgemini, 2016). As an example, the case of Barclaycard in the UK can be examined. The company has provided a wristband that was a development to allow people to finalize purchases by a touch of a provided wristband to a card reader (Capgemini, 2016).

General assumption presents that individuals who are familiar with different payment methods or new technologies are more likely to implement faster to new developments, which also concern methods of payment such as mobile payment, blipp payments, and virtual money (Boden, Maier, & Wilken, 2020). As within this thesis paper, the study is focused on the Swedish population. Due to the fact that Sweden is recognized as a cashless society with the rapid adoption of the changes, it is a suitable sample for our study (Arvidsson, 2019). With the combination of the development of contactless payments and the cashless society the following hypothesis is suggested;

H1: The majority of the society is using a contactless method of payment.

As the payment methods were developing throughout the years, smartphones have started playing a significant role in their evolution (Capgemini, 2016). Some researchers were suggesting that by 2016, within many countries, smartphones are going to be used by the majority of the population. This study was aiming to show how big the role smartphones are playing in the development of cashless payment methods (eMarketer, 2014). Mobile payments are due to convenience increasing willingness to pay. However, this is contingent on personal adaptation, which in turn is dependent on the nation's existing

adaptation system. Convenience is considered a reliable driver, and if two payment options have the same pain of payment, the more convenient one will be with the highest willingness to pay (Boden, Maier & Wilken, 2020). Consequently, we are aiming to find if there is a correlation between mobile payments and the frequency of OTG consumption.

H2: Mobile payments increase OTG consumption

If the given hypothesis would be correct, it could allow the authors to connect mobile payment through the frequency of On-The-Go purchases done by individuals to the usage of the contactless payments. This would enable us to, at some point, examine if technological innovation has any influence on consumer behavior when it comes to the payments done by contactless methods.

2.10.2 Mass Media

Advertisement and marketing experts argue that when it comes to the purchases done by young people or children, specific values are followed, such as emotions, imaginations, and trends that are connected to them. Teenagers with strong strategic thinking and need for adventure are more likely to buy video games than other teenagers (Lusted, 2009). Additionally, social media play a big part in shaping long-term behaviors and interests among children from a young age who are interacting with the virtual world (Plowman & McPake, 2013). According to Prensky (2001), the population born nowadays are known as digital natives. They are using technologies from a very early age, such as video games and computers or smartphones. Consequently, young people adapt faster to new technologies. It comes more naturally for them. The older part of the population, such as their parents or teachers, needs to spend more time with new technologies to understand its' usage and purpose.

The mirror effect, the gaming ability, and the collection value are three motivators for acquiring influence on children's behaviors toward society and the consumption of goods and services (Cristea et al., 2014). The first one, mirror effect, is the desire of young adults and children to be as adults, following specific trends and behaviors that they observe among family members and in mass-media. The phenomenon is known as KAGOY (Kids Are Getting Older Younger). The main reason that influences this concept is the exposure of children into mass-media and advertisement that, in most cases, is not made for kids. Secondly, we have the gaming ability that influences motivation to get higher scores and instantly become a better version of themselves to beat peers that they feel the need to compete with. The characters that they became in the video games become their inspiration, and even outside of the game, they want to be a human version of it, which is linked to the third motivator, the collection of values. When it comes to this age range, it is essential to understand the group of millennials. Millennials are individuals born in the 80s and 90s, also known as generation Y (Muskat et al., 2013). They have the highest purchasing power in the economy and are the biggest group of the population

targeted by retailers (Bucic, Harris & Arli, 2012). Consequently, young adults are the easiest part of the society to influence, by the promotion of modern trends, aiming to cause a significant growth in sales (Cristea et al., 2014). The younger generation is more open-minded about new technologies and is not afraid to use it. Therefore the following hypothesis was assumed:

H3: Millennials are spending money more often on OTG consumption than older generation

2.10.3 Impulse Buying

Impulse buying is recognized as unplanned purchasing (Cobb & Hoyer, 1986). It is known as one of the main factors when it comes to buying behavior and is considered as fundamental aspects of marketing activity (Rook, 1987). There are internal and external factors that influence impulse control (Beatty & Ferrell, 1998). Internal factors could be time availability, personal traits, or emotional state and disposable income. On the other hand, there are external factors that are promotions or discounts of the products, the behavior of salesperson and in the store environment, the brand of the product and its' characteristics, or even a festive season (Madhavaram & Laverie, 2004; Muruganantham & Bhakat, 2013).

Researchers advocate that shopping without any specific intentions can be more significant than the intentional one what means that impulsive buying can provide tremendous pleasure experience in buying activity (Kesari & Atulkar, 2016; Sherry, 1990). Moreover, customers that shop during their leisure time, such as vacation and have higher hedonic experience in their behavior, are more likely to implement more impulsive buying into their shoppings (Chaturvedi, 2015). Those statements can lead to the assumption that then people are under certain feelings or even pressure they do not plan most of their purchases. Additionally, similar behavior can be observed in small purchases performed in changing a workplace or traveling. What is more, it does not has to be associated with leisure time but just a lifestyle. Inhabitants that live in cities where the population goes beyond 250 000 people have more shopping possibilities (Bibri, & Krogstie, 2017). A large number of residents require more geographic land available for creating consumption areas, which also involves small kiosks or restaurants that are known from on-the-go purchases. The bigger the city, the more shopping opportunities people are facing. Those places are also known for big shopping centers, extensive public transportation options, and plenty of small shops and cafes where people can get a quick snack or coffee. Therefore, our hypothesis is claiming that:

H4: The option to pay with a contactless payment method increases OTG consumption more when the respondent is living in a larger city for the three community sizes of 0 (less than 50 000 inhabitants), 1 (more than 50 000 inhabitants but less than 200 000 inhabitants) and 2 (more than 200 000 inhabitants).

Impulse purchases are evident in many product categories (Beatty, & Ferrell, 1998). Firstly, products with low monetary involvement, such as groceries. Secondly, products attached to personalities such as books or products that influence self-acceptance, such as jewelry and clothes. Lastly, products that influence endorphin and pleasure level, such as fast food or chocolate. Since most of the items that were mentioned above are easy to purchase, the possibility of the usage of a contactless payment method makes the purchase even more comfortable. Consequently, we are aiming to examine if;

H5: Consumers that pay a higher percentage of their total physical purchases with a contactless payment method have lower impulse control.

The last hypothesis we believe is the most linked to the topic of this thesis, which consequently makes this assumption the most important one in the entire research.

2.11 Conceptual Framework

Based on secondary data and researched theory, the presented paper advocates the conceptual framework and accommodate factors that should potentially influence consumer behavior. Figure 1 gives an overview of the theoretical model developed on factors that hypothetically could tend to increase people's purchases. The suggested factors were based on the research that was already presented within this topic (Cobb & Hoyer, 1986, Lusted, 2009; Sands et al., 2019; HSBC, 2005).

As mentioned before, the study is focused on a specific society. A cashless society has developed a concept of the population where the majority is using other methods of payment such as Visa/ Mastercard cards, virtual payment apps, or even digital money rather than physical cash (Arvidsson, 2019).

The chosen social and economic factors were studies by asking different questions in the survey and separating them to see each element separately and if there might be any correlation between them. An example of the study could be a correlation between the size of the city and the frequency of purchases performed by the contactless method of payment. Another example could be the age and the frequency of the usage of the contactless payment method. The research suggested that two major factors have shown a more significant influence on individuals' behavior while using contactless payment in OTG consumption. Those factors were the impulse buying and development of new technologies such as mobile payment (Boden, Maier, & Wilken, 2020; Cobb & Hoyer, 1986; Cristea et al., 2014). Each of those factors determined two hypotheses; therefore, we have stated five hypotheses in general.

2.12 Method for the Frame of Reference

For the process of creating the frame of reference, the following steps were taken. The first action that was taken was to review relevant and peer-reviewed literature within the field of the contactless method of payment and possible factors that can influence customer behavior. The tools used for the database collection were JU-Primo and Google Scholar. After stating a research question and dividing it into smaller parts, suitable keywords were written down and used to receive the most relevant research topics. The focus at the beginning of the study was on the contactless method of payment and cashless society. However, as mentioned in the background, this topic is still new with limited sources.

Consequently, we managed to find research papers most applicable to fulfill the purpose of this study. Nevertheless, the keywords used in the search process needed to be expanded to gather more data. The following keywords appeared to be included: *new methods of payment, blippit, mobile payment, modern payments, contactless payments, contact, cashless society, customer behavior, impulse buying, cryptocurrencies, Bitcoin, virtual currencies, children vs technology, Swedish society, the Swedish banking system.*

The process of searching the literature has discovered many relevant articles. The ones that we have chosen for more in-depth analysis were extracted from other relevant sources. Those articles gave us a bright background of the topic and explained more in-depth the possible issues within this topic. The presented academic papers highlighted various aspects that we took into consideration while creating the survey.

While performing our review of articles, the focus was extended throughout the years. The theory parts used older articles even from the 90s. Although, since our research topic is about the more current issue such as contactless payments or cashless society, the authors used more relevant literature in paragraphs concentrated within that topic where literature will be approximately from 2005 - 2020. We have mainly focused on a two-time range. The first time rage with the older articles was used mostly in the theoretical part. One particularly substantial contribution was a book written by Niklas Arvidsson that focuses on Swedish cashless society and its' future towards cash payments. The given book was published by the end of 2019, which provided a good source for up-to-date knowledge.

3. Methodology

In this section, the focus will be on describing and justification for the purpose and approach of the research. Additionally, it presents and defines the methods used in data collection. The construction of the questionnaire will be presented along with the collection of primary data and its' analysis.

3.1 Research Philosophy

This research is based on a realism research philosophy. Thought and actions are just as real as physical objects and can be tested for causation (Collis & Hussey, 2014). Consumer behavior is a result of choices and heuristic behavior. It will be different for each individual. However, by collecting primary data for several individuals, it could be possible to see that this behavior is differentiated based on specific individual characteristics such as age, education level, and environmental attributes such as geographical location and population size.

"What people think, believe, and feel affects how they behave. The natural and extrinsic effects of their actions, in turn, partly determine their thought patterns and affective reactions."

- (Bandura, 1986, p.25)

3.2 Research Approach

In order for the thesis to be performed faithfully, the frame of reference should draw a direction for primary data collection (Greener, 2008). The research approach focuses on identifying the most suitable target for the research. Additionally, theory development shows an important aspect that should have been concluded while preparing a research method (Greener, 2008). However, the usage of the deductive research approach was aiming to help the authors of this thesis to develop the potential theoretical and conceptual frameworks (Collis & Hussey, 2014). The next step would be the creation of the hypothesis. The hypothesis is constructed with the usage of the theoretical framework and in order to challenge findings from potential gaps in the research and create new research literature (Greener, 2008).

Creswell (2014) claimed that in order to get significant accurate data integrity, researchers should use quantitative methods rather than qualitative ones. The concept of data integrity helps in noticing the overall outcome of the research. One of the characteristics and advantages of qualitative research is that it is transparent when it is led by a quantitative approach (Collis & Hussey, 2014). However, quantitative studies can provide a dependable statement and comparison that follows theoretical frameworks. Rolfe (2006), by the concept of critical realism, suggests that for the research question to be realizable, it needs to be supported by a suitable method.

Consequently, this research follows a quantitative approach with a combination of a deductive approach. The structure of this paper was based on conceptual frameworks. That data was gathered from the earliest research around factors influencing consumer behavior when it comes to contactless payments. Following the guidelines of a realistic

approach, the thesis consists of existing research that helped develop the hypothesis and conceptual framework (Rolfe, 2006).

3.3 Research Purpose

The literature used in the development of this research fulfills a couple of purposes (Saunders et al., 2009). An exploratory purpose, also known as an analytical one. It focuses on the creation of new perceptions and judgments of existing concepts (Collis & Hussey, 2014). It is used to comprehend dependencies among variables. From different side a descriptive purpose presents facts or observations as they are already written, which is also perceived as a base of exploratory purpose that goes beyond showing characteristics of theories (Saunders et al., 2009). There is also an inferential purpose that focuses on models that help in drawing a conclusion linked to a randomized sample of the study (Collis & Hussey, 2014). Therefore, the similarities are noticeable between the theoretical part and the topic of this research, where we want to discover how different factors can influence consumer behavior.

The crucial part is to define a perfect time frame where the research would be conducted. Simultaneously, researchers should also specify if the study would be performed as a cross-sectional time frame, or as longitudinal where the study will demand significantly more time to execute (Saunders et al., 2009). Due to the time restrictions of this study, the research will be conducted in a cross-sectional period. They were keeping in mind the purpose of this study stated in the paragraph above. Additionally, the research does not show the need for more than a few weeks to collect and analyze the data.

3.4 Data Collection

A crucial part of the research is the preparation of suitable questions that will help to answer the research question. The collection of secondary data focuses on creating a good foundation for research that will support the creation of data collection and ensure its' credibility (Groves and Couper, 1998). Therefore, secondary data could be seen as both quantitative and qualitative data (Saunders et al., 2009). Along with many characteristics of secondary data such as size, method of utilization, or time frame, it is essential and most important to collect relevant data to the research topic (Groves and Couper, 1998).

In the presented paper, the survey was performed to test the hypotheses created based on the secondary data and conduct a quantitative study to see its' reliability (Rolfe, 2006). When it comes to data collection, it will be performed in the mono method technique. That is a single quantitative data collecting process for more precise and coherent outcomes (Saunders et al., 2009). The research was performed with the help of analytical surveys, which are the most suitable for the given topic as the authors are aiming to find out the correlation between one or more variables. Since the theoretical framework was suggesting to find the possible dependent and independent variables, as well as the relationships between

them (Collis & Hussey, 2014), this quantitative study would allow researchers to examine how factors are affecting the research question (Groves and Couper, 1998).

In order to receive as valuable and reliable answers as possible, a draft survey was created, and several friends were asked to go through the survey and give us feedback about the potential misunderstanding of the questions or limitations of the study in general.

3.5 Sample

The process of conducting a survey is aiming to minimize the cost of managing the findings from the entire population (Collis & Hussey, 2014). A society is known as a gathering of individuals that live in the same country (Kazerooni, 2001). For this research, we have chosen a group of people that have spent the majority of the past 24 months in Sweden, which is also our only restriction to be able to take part in the study. The given period of time, in our opinion, is long enough to implement to the rapidly changing climate and digitalization within different spheres of the Swedish market, such as payment methods. In this case, the authors are aiming to receive a randomly selected group of the population. Since according to Bell (2018), randomly selected part of the population is able to show outcomes equal to the whole population.

As the only restriction about the sample was to include the population that has lived on Swedish territory for the majority of the last 24 months in order to consequently receive variety in geographical location, age, or even educational level.

3.5.1 Sample Size

Since there is no grand rules and restriction about the design of the perfect sample size, we could be flexible with the desired structure of it (Saunders et al., 2009). As the central limit theorem is stating, one of the advantages of the larger sample size is that is allowing to get more accurate responses (Bell, 2018). The approximate target of answers for this thesis is aimed to be one hundred. Nowadays, companies are using social media as a channel to reach customers (Geierhos, 2011). Therefore, we have used social media to contact volunteers that would fill up the thesis paper. As the data started to be collected, we monitored the spread of the incoming answers. The aim was to receive answers representing all of the population, and especially within the three background questions, we have set up on age, geographical location, and educational level.

3.6 Questionnaire Design

The structure of the questionnaire is based on secondary data. That data was provided by the literature research to find the most relevant responses to the research question. The method used in the survey was to ask the same questions to each volunteer to be able to get adequate answers from large samples (Saunders et al., 2009). However, the process of designing the questionnaire is very crucial. It involves constructing suitable questions to the research

question that after thorough analysis will allow to answer the given research question (Bell, 2018). The questionnaire was sent via social media to get variety in responses (Geierhos, 2011). Lastly, we have conducted two surveys with the platform google forms. One survey was provided in Swedish language and another one in the English language. However, to gather final data, we moved the English surveys to the Swedish document. Since we wanted variety in responses, we provided a survey in English for people that are not feeling comfortable in performing a survey in Swedish such as immigrants or students. The study conducted in Swedish was targeting Swedish citizens with fluency in Swedish and were aiming to get a more extensive age range for an overall data collection.

There are two ways of conducting the surveys. The first one is self-administered and the second one is interviewer-administered (Saunders et al., 2009). Since this survey was performed with the usage of social media, the self-administered approach was applied. It is designed for a more significant amount of responses while keeping it anonymous (Cohen et al., 1998).

3.6.1 Designing Questions

The process of creation of the survey questions is essentials to formulate the most relatable questions. The right questions used in the study would help to answer the research question (Saunders et al., 2009). Consequently, to make it comprehensive to analyze, we have decided to conclude only closed questions. The overall number of questions reached 31 since we wanted to be sure that the answer would be as straightforward as possible and would show us a clear answer to the research question. For this study, we examine how different factors can influence individuals' subconscious choices regarding consumer behavior. Therefore, it is indispensable to use different, simultaneously similar questions that would affect different parts of behavior (Saunders et al., 2009). For easier comparison of the answers, they will only consist of closed questions where the possible solutions for the questions could be "yes," "no," or rating scale that would check the frequency of the usage of the method of payment. The range would be divided into five, ten, or eleven pieces are known as descriptive variables (Groves and Couper, 1998). Each piece represents the percentage as an example follows the first dot is approximately 10%, second is approximately 20%, and so on. The secondary data has influenced the questions used in the survey. The essential information from the theoretical framework was used. As the main focus within this thesis is devoted to finding a relationship between contactless methods of payment and on-to-go (OTG) consumption, they influenced most of the questions. OTG consumption focuses on small purchases that are most likely to appear while changing locations or traveling (Sands et al., 2019). In this part, the questions are designed by dummy variables to be as adequate to the frequency of the purchases made by each payment method as possible. The second section of the survey was mainly focused on OTG purchase, at the same time aiming to examine it from a different perspective to get as much as possible from the respondents. In the first section, most of the questions are designed throughout dichotomous variables, so include only "yes," or "no," answers. In this section, we are trying to examine the age

range according to the new concepts such as KAGOY, where children are now growing up faster than they were before (Cristea et al., 2014). At the same time, we believe that the younger population is more exposed to impulse buying (Cobb & Hoyer, 1986) and the development of new technology, which also applies to innovative methods of payment (Capgemini, 2016).

3.7 Data Analysis Method

Since the data was collected throughout the survey the statistical tools were used for the analysis part, in order to analyze the accuracy of the presented hypothesis, we have used visual aids such as graphs and tables to show answers' frequency and tendency towards each other (Saunders et al., 2009). Scatter plots were created to show the tendency for the correlation and to compare answers visually. The linear regression model was performed as a tool for presenting possible dependency between variables (Groves and Couper, 1998). The process of creating such as regression requires two variables, one called regressand, y, and regressors are known as X (Goldberger, 1962). For this study, we prepared most of the questions focused on the frequency of the On-The-Go purchases stated as y. On the other hand, the percentage of total physical purchases paid for with the usage of a contactless payment method as X. Consequently, the outcome of this process has shown the value of y with a case of given X, also known as the correlation coefficient. (Groebner, Shannon, & Fry, 2014).

3.8 Reliability and Validity

Since the given thesis is based on quantitative studies, a high degree of reliability should have been presented. Reliability provides the consistency of the given research. At the same time, ensure that if the study were performed again, the outcome would be the same as the current one (Collis & Hussey, 2014). Several ways help in providing the research a significant level of reliability known as its' attributes (Korb, 2012). The first attribute is homogeneity, also called internal consistency, which provides that if the tested sample would be split into two parts, there will still appear a correlation between them. Secondly, there is the equivalence that is connected to the test throughout the inter-rater reliability. This point is aiming to argue that there should be a potential consistency between participants of the study. The last attribute is stability. Stability is prioritizing that the results of the same survey after repetition would be coherent with the previous results of the same study. This point is also assuring that the primary function of reliability is met.

On the other hand, validity is an ability to ensure accuracy in the quantitative study (Korb, 2012). In other words, the survey is checking the factors stated in the hypothesis. Validity is known from three types, content, construct, and criterion. The first one, material, assures that the study covers the topic concerning the variables presented in the research. The second type is constructed validity, which focuses on the reliability of the sample used in the study. Which in this case would be if the majority of the volunteers are familiar with

the contactless method of payment. The last type, criterion validity claims that different forms of the instrument are able to measure the same variable. This process can be measured in various ways, such as convergent validity, divergent validity, and predictive validity (Heale, Twycross & Heale, 2015).

3.9 Ethical Considerations

Ethical considerations appear in every stage of the research. This study touches what the authors consider to be a sensitive topic that is personal finance. This could to many be stigmatized with a sense of shame and discomfort. However, due to the fact that data was collected anonymously without any personal information questions such as personal number, birth date, or a name that could suggest the respondents' identity, the authors took measures to respect the confidentiality of this data.

The data was stored in two languages since the data was retrieved in both Swedish and English language, the primary purpose of this action was to reach more variety in responses, and the results were viewed in its initial stage only by the authors of the research. After the investigation was finished, the data would be safely deleted ones its' purpose is fulfilled. The participants were informed about that fact before they fill up the questionnaire. Moreover, we have offered them access to our findings by reading the presented thesis.

The results of the thesis are presented in complete honesty and are not in any way tampered with to mislead the reader. It has been written from an objective perspective. The authors have no personal or financial interests in the outcome of this research. The survey has not excluded any group. However, it has been distributed mainly through social media with the usage of the personal network of the authors. There could be groups of society that have not been reached unintentionally. A level of carefulness has been incorporated into the work to avoid unnecessary mistakes and secure the accurate outcome of the research. All sources used have been referenced. The work is the author's work and does not copy or imitate previous research. The research has conclusively paid respect to ethical issues within honesty and integrity, objectivity, carefulness, openness, intellectual property, confidentiality, responsible publication, legality, and human subjects protection, which are all relevant parts of research ethics (Shamoo & Resnik, 2015).

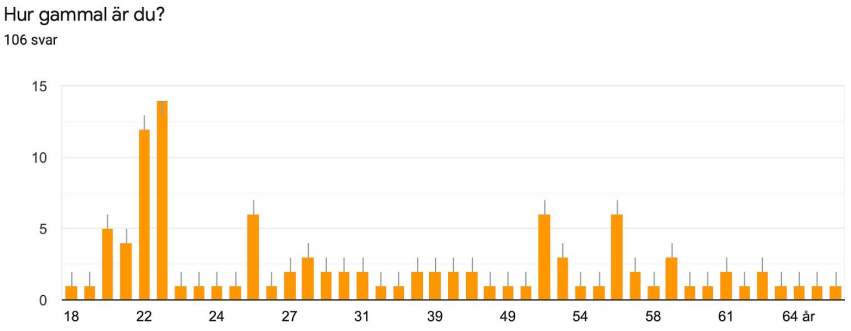
4. Empirical Findings and Regression Analysis

This chapter of the thesis will show the empirical finding and regression analysis of SPSS from data collected throughout the surveys. The results are diving into several sections that show different findings depending on the hypothesis and method of the analysis.

4.1 Descriptive Statistics

The survey had a total of 117 respondents. The survey was conducted by distributing out the link to the pre-designed survey that was performed on Google Forms. The survey came in both a Swedish and an English version to facilitate data collection and once the surveys was closed the answers from the English one was manually transferred into the Swedish one to be able to find results. Eleven of the voluntary participants had not been living in Sweden for the majority of the past 24 months and their answers were deleted from the data set and not taken into consideration while performing statistical analysis. This resulted in 106 answers within the sample that were valid for this study. We have managed to receive a wide age range starting with the age of 18 and finishing at the age of 77 years old. As the median age is equal to 28.5 years old and the mean age is 36.6 years old we can see that the majority of the respondents were among a group of young adults known as millennials (Muskat et al, 2013).

Figure 2 : Age range within the study

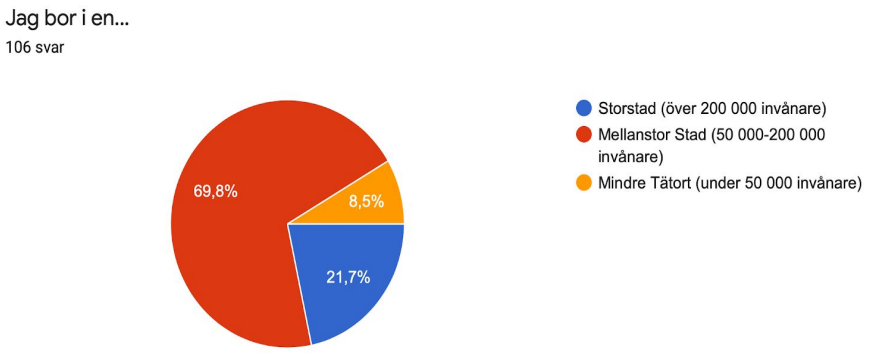


How old are you?

Youngest: 18 Years
Oldest: 77 Years
Median: 28.5 Years
Mean: 36.6 Years

Within this figure, the authors of this academic paper wanted to present the variety in the age range among respondents. This was one of the aimed characteristics of the population sample that the authors of this thesis wished to reach. Simultaneously, the assumption was made that if more diversity among the sample would be achieved, the research could show surprising outcomes of the study.

Figure 3: Spread in the city size

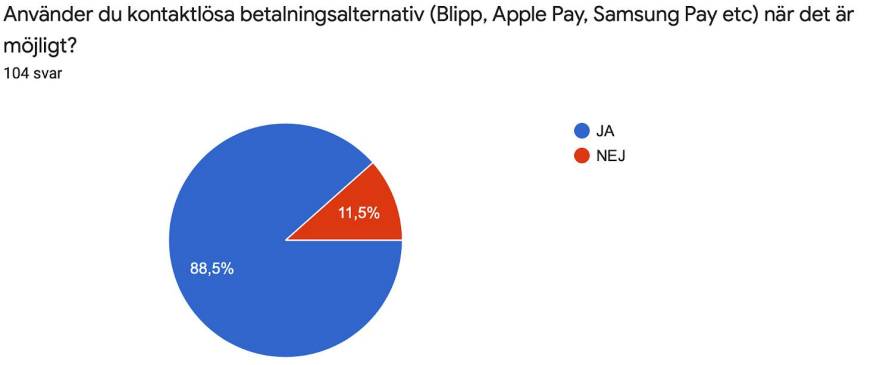


I live in a…
21.7% Big City (over 200 000 inhabitants)
69.8% Medium City (50 000 - 200 000 inhabitants)
8.5% Small City (less than 50 000 inhabitants)

The data from figure number three is used in the statistical testing of hypothesis number 4. H4 is claiming that the size of the city is one of the factors influencing consumer behavior. Following the theoretical frameworks, the authors of this thesis have assumed that the bigger the city size, the more individuals would be influenced by the use of a contactless method of payment. Such an assumption was made by the observations that they possibly could be surrounded by more places where they could purchase any goods.

Figure 4: The usage of the contactless method of payment

Question asked: do you use a contactless payment option (blip, Apple Pay, Samsung Pay etc.) when possible?



88.5 % YES
11.5 % NO

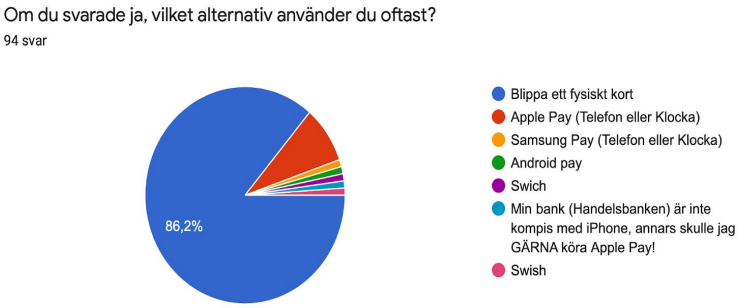
Figure 4 aimed to show the clear answer for the first hypothesis. Hypothesis number one was stating that the majority of the given society is using a contactless method of payment. The

respondents were asked a question if they use a contactless payment option when possible. The answers clearly showed that 88.5% of the volunteers answered 'yes' for the given question. Consequently, we can state that the majority of the society is using a contactless method of payment, and therefore hypothesis 1 is accepted.

$H1_0$: The majority of the society is not using a contactless method of payment.
$H1_1$: The majority of the society is using a contactless method of payment.

Figure 5: Kinds of the methods of contactless payments

Question asked: if you answered yes *(for the previous question about the usage of the contactless methods of payment)*, which one do you use more often?



86.2 % Blipping a physical card
8.5 % Apple Pay (Phone or Watch)
2.2 % Swish
1.1 % Samsung Pay (Phone or Watch)
1.1 % Android Pay
1.1 %*My bank(Handelsbanken aren't friend with Iphone, otherwise I would GLADLY run Apple Pay!* **(free text answer left in the other section)**

Figure number five is designed to give the reader a clear picture of the received answers about contactless payments and the popularity among their options. This table also showed that still, the most popular method used is to blip of a physical card that can be caused by the fact that it is the oldest method of contactless payment so far.

Figure 6: The frequency in the usage of the contactless payment methods

Question asked: how many percent of your total physical purchases do you pay using a contactless payment method?

This question aimed to map the frequency of the usage of the contactless payment method, which could confirm that Sweden is a cashless society. By the high percentage among the answers, we can agree that the sample used in this study is a cashless society. This variable has been used in the statistical testing of several of the hypothesis.

Figure 7: The frequency of OTG

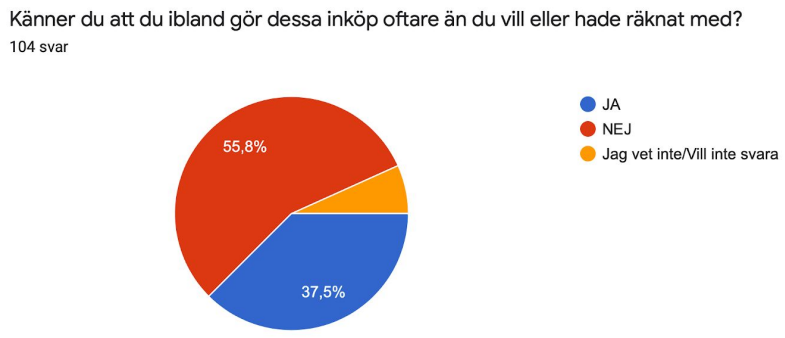
Question asked: how often do you buy food/snacks/drinks OTG?

2.8% Several times per day
5.7% Once a day
21.7% A few times a week
35.8% A few times a month
25.5% A few times a year
8.5% Never

Figure number seven was connected to the part of the research question where we claimed a connection between On-The-Go consumption and the usage of contactless payments. Within this question, the author of this thesis wanted to examine the frequency of the OTG purchases, which would help in the understanding of the characteristics of the sample.

Figure 8: Connection between impulse buying and OTG consumption

Question asked: do you sometimes feel like you make these purchases more often than you would have liked to or had planned on?



37.5 % YES
6.7 % I don't know, I don't want to answer
55.8 % NO

The connection between impulse buying and OTG consumption was an interesting concept for us as the authors. The answer to this question was hard to predict. Consequently, the preparation of the most accurate study questions was crucial. The answers have shown that the majority of the sample does plan most of their OTG purchases but 37.5 percent answers that they sometimes make these purchases more often than they would like to or had planned to.

4.2 Inferential Statistics

A linear regression was conducted to test for correlation between variables and test the hypothesis. A linear regression is a measure of the influence an independent variable has on a dependent variable (Collis & Hussey, 2014).

Regression analysis is a form of inferential statistics. In regression analysis, P-values and coefficients helps you determine which relationships are statistically significant. The P-value for each independent variable test the null hypothesis that there is no effect on the dependent variable. If the p-value is lower than the significance level, the null hypothesis is rejected and a correlation is detected between the independent variable and the dependent variable (Best & Wolf, 2014).

A significance level 0.05 was chosen for all correlation analysis, representing a 5% risk of concluding a relationship exists where there was no relationship.

To get a general idea of how contactless payments are influencing OTG consumption the first analysis was made on these two variables.

For the independent variable, further referred to as IV, here displayed on the x-axis, *Percentage of Total Purchases Contactless*, respondents were asked to give a number between 0 and 10 representing the percentage of their total physical purchases that was paid for using a contactless method of payment.

For the dependent variable, further referred to as DV, here displayed on the y-axis, *How often OTG,* respondents were given several options on the frequency of their OTG consumption, a lower number represents a higher frequency so 0= multiple times a day, 1= once a day and so forth.

In the scatter plot below is a visual representation of the data set between these two variables.

Chart 1: Percentage of Total Purchases Contactless - How often OTG

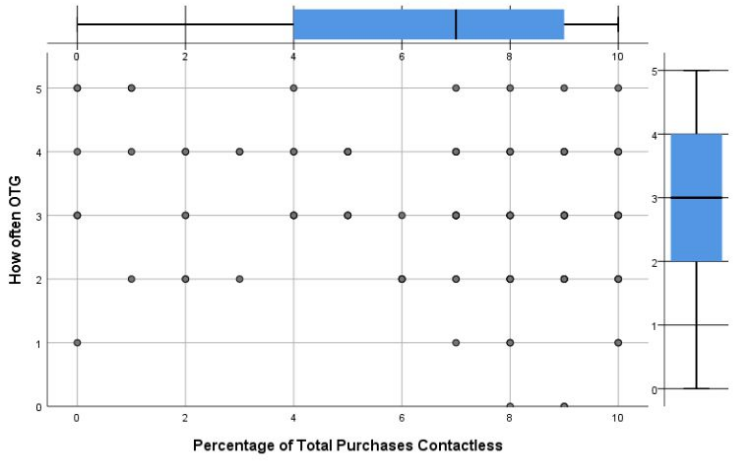


Table 1: Percentage of Total Purchases Contactless - How often OTG

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3,574	,254		14,081	,000
	Percentage of Total Purchases Contactless	-,087	,035	-,235	-2,460	,016

a. Dependent Variable: How often OTG

A simple linear regression was performed on these two variables with the IV, *Percentage of Total Purchases Contactless,* and the DV, *How often OTG.* The P-value at 0.016 indicates a statistically significant correlation.

$H2_0$: Mobile payments do not increase OTG consumption.
$H2_1$: Mobile payments increase OTG consumption.

For the independent variable, *Preferred Mobile Payment,* respondents were asked to choose their preferred method of contactless payments. Those that answered with a non-mobile payment method were given a value of 0 and those that answered with a mobile payment method (Apple Pay, Samsung Pay, Android Pay, Swish) was given a value of 1.

For the dependent variable, further referred to as DV, here displayed on the y-axis, *How often OTG,* respondents were given several options on the frequency of their OTG consumption, a lower number represents a higher frequency so 0= multiple times a day, 1= once a day and so forth.

Table 2: Prefered Mobile Payment - How often OTG

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3,074	,117		26,311	,000
	Preffered Mobile Payment	-,574	,347	-,160	-1,654	,101

a. Dependent Variable: How often OTG

A simple linear regression was performed on these two variables with the IV, *Preferred Mobile Payment,* and the DV, *How often OTG.* The P-value at 0.101 indicates that there is no statistically significant correlation and the null-hypothesis is accepted.

Table 3: Percentage of Total Purchases Contactless - How often OTG / Preferred Mobile

Coefficients[a]

Preffered Mobile Payment	Model		Unstandardized Coefficients		Standardized Coefficients		
			B	Std. Error	Beta	t	Sig.
0	1	(Constant)	3,456	,267		12,926	,000
		Percentage of Total Purchases Contactless	-,060	,038	-,164	-1,590	,115
1	1	(Constant)	5,068	,456		11,108	,000
		Percentage of Total Purchases Contactless	-,342	,058	-,882	-5,926	,000

a. Dependent Variable: How often OTG

The data set was split in order to compare the effect of contactless payments on OTG consumption for those that prefer a non-mobile method of payment and those that prefer a mobile method of payment, group 0, and 1. A simple linear regression was performed on two variables with the IV, *Percentage of Total Purchases Contactless,* and the DV, *How often OTG.* The P-value for group 0 at 0.115 shows that there is no statistically significant correlation if we only look at those that had chosen a non-mobile preferred method of payment. The P-value for group 1 at 0.000 indicates a highly statistically significant relationship between the percentage of physical purchases paid for using a contactless method of payment and frequency of OTG consumption for the group that has chosen a mobile method of performing contactless payments.

$H3_0$: Millennials are not spending money more often on OTG consumption than the older generation

$H3_1$: Millennials are spending money more often OTG consumption than the older generation

Table 4: Age - How often OTG

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,031	,257		7,898	,000
	Age	,027	,006	,377	4,155	,000

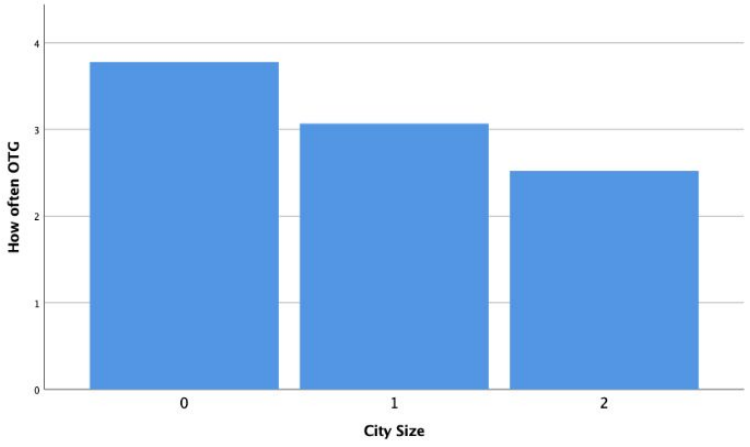
a. Dependent Variable: How often OTG

A simple linear regression was performed on these two variables with the IV, *Age,* and the DV, *How often OTG.* The P-value at 0.000 indicates that there is a statistically significant correlation and the null-hypothesis is rejected.

$H4_0$: The option to pay with a contactless payment method does not increase OTG consumption more when the respondent is living in a larger city for the three community sizes of 0 (less than 50 000 inhabitants), 1 (more than 50 000 inhabitants but less than 200 000 inhabitants) and 2 (more than 200 000 inhabitants).

$H4_1$: The option to pay with a contactless payment method increase OTG consumption more when the respondent is living in a larger city for the three community sizes of 0 (less than 50 000 inhabitants), 1 (more than 50 000 inhabitants but less than 200 000 inhabitants) and 2 (more than 200 000 inhabitants).

Chart 2: City Size - How often OTG



In the survey, respondents were asked if they live in a small city (less than 50 000 inhabitants), a medium city (more than 50 000 but less than 200 000 inhabitants) or a large city (more than 200 000 inhabitants). 0 is a small city, 1 is a medium city and 2 is a large city. By looking at the diagram above it is clear that respondents living in a larger city have a higher frequency of OTG consumption.

Table 5: Percentage of Total Purchases Contactless - How often OTG / City Size

Coefficients[a]

City Size	Model		Unstandardized Coefficients		Standardized Coefficients		
			B	Std. Error	Beta	t	Sig.
0	1	(Constant)	4,807	,501		9,592	,000
		Percentage of Total Purchases Contactless	-,193	,074	-,700	-2,593	,036
1	1	(Constant)	3,111	,265		11,749	,000
		Percentage of Total Purchases Contactless	-,007	,039	-,022	-,184	,855
2	1	(Constant)	4,788	1,086		4,408	,000
		Percentage of Total Purchases Contactless	-,285	,132	-,425	-2,152	,043

a. Dependent Variable: How often OTG

The data set was split in order to compare the effect of contactless payments on OTG consumption for those that live in a small city, those that live in a medium city, and those that live in a large city, group 0, 1, and 2. A simple linear regression was performed on two variables with the IV, *Percentage of Total Purchases Contactless,* and the DV, *How often OTG.* The P-value for group 0 at 0.036 shows that there is a statistically significant correlation if we only look at those that live in a small city. The P-value for group 1 at 0.855 shows that there is no statistically significant relationship between the percentage of physical purchases paid for using a contactless method of payment and the frequency of OTG consumption for the group that lives in a medium city. The P-value for group 2 at 0.043 indicates that there is also a correlation for those living in a large city. As we expected there to be a greater chance of finding a correlation in group 2 than group 1 and 0 and subsequently a greater chance of finding a relationship in group 1 than in group 0 the results were inconsistent with our hypothesis and hypothesis 3 was falsified.

$H5_0$: Consumers that pay a higher percentage of their total physical purchases with a contactless payment method do not have lower impulse control.
$H5_1$: Consumers that pay a higher percentage of their total physical purchases with a contactless payment method have lower impulse control.

Respondents were asked to grade there impulse control on a likert scale from 1-5, 1 representing a very low impulse control, and 5 representing a very good impulse control.

In the scatter plot below is a visual representation of the data set between the two variables of *Percentage of Total Purchases Contactless,* represented on the x-axis and *Impulse Control* represented on the y-axis.

Chart 3: Percentage of Total Purchases Contactless - Impulse Control

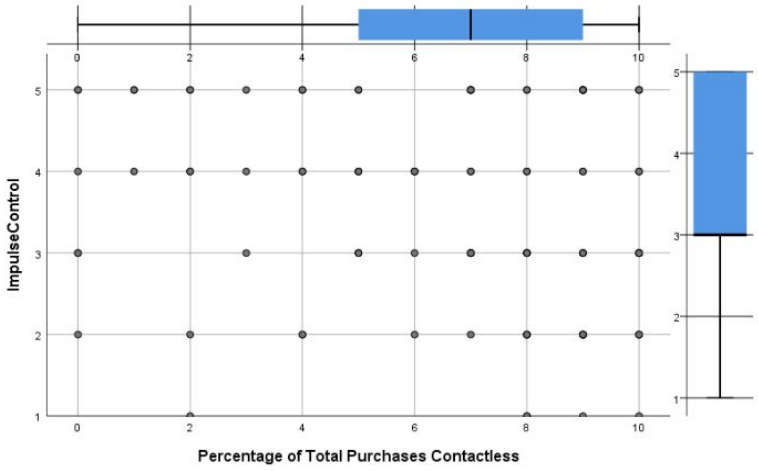


Table 6: Percentage of Total Purchases Contactless - Impulse Control

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4,002	,285		14,028	,000
	Percentage of Total Purchases Contactless	-,083	,039	-,207	-2,121	,036

a. Dependent Variable: ImpulseControl

A simple linear regression was performed on these two variables with the IV, *Percentage of Total Purchases Contactless,* and the DV, *Impulse Control.* The P-value at 0.036 indicates a statistically significant correlation. Hypothesis number 4 is thereby accepted.

Low impulse control is a known driver for impulse buying and subsequently unplanned OTG purchases. This is consistent with the theory on pain of payment that analog, less digital payment modes have a higher pain of payment, making the payment more uncomfortable and causing people to be less willing to spend while quicker transactions that do not involve cash increases willingness to spend.

4.3 Hypothesis Testing

Hypothesis testing is used to examine if the questions or statements made by following certain assumptions about the population based on theoretical framework should be accepted or rejected based on the statistical analysis (Klayman & Ha, 1987). Additionally, it is essential to create a null and alternative hypothesis. The alternative hypothesis is the main focus in the preparation of the statistical analysis since they were created by the usage of theoretical frameworks, and were recognizing the variables used in the study (Ennis & Ennis, 2010).

Table 7 : Hypothesis Test Summary

Alternative Hypothesis	Supported/Not supported
$H1_1$: The majority of society is using a contactless method of payment.	**$H1_0$ is rejected.** **$H1_1$ is accepted.** **See figure 4.**
$H2_1$: Mobile payments increase OTG consumption.	**$H2_0$ is accepted.** **$H2_1$ is rejected.** **See table 2.**
$H3_1$: Millennials are spending money more often on OTG consumption than the older generation	**$H3_0$ is rejected.** **$H3_1$ is accepted.** **See table 4.**
$H4_1$: The option to pay with a contactless payment method increase OTG consumption more when the respondent is living in a larger city for the three community sizes of 0 (less than 50 000 inhabitants), 1 (more than 50 000 inhabitants but less than 200 000 inhabitants) and 2 (more than 200 000 inhabitants).	**$H4_0$ is accepted.** **$H4_1$ is rejected.** **The correlation is stronger in city size 0 and 2 instead of an exponential growth based on city size as expected, see table 5.**
$H5_1$: Consumers that pay a higher percentage of their total physical purchases with a contactless payment method have lower impulse control.	**$H5_0$ is rejected.** **$H5_1$ is accepted.** **See table 6.**

5. Interpretation and Further Analysis

Chapter number 5 is presenting the corrections or lack of them while performing a comparison of the theoretical framework with empirical findings. Within this section, the reader can receive a more in-depth analysis of the hypothesis of the factors that are influencing consumer behavior while using the contactless payment method is presented.

5.1 General Analysis

Following the theoretical framework, consumer behavior should be influenced by factors such as mass media, impulse buying, size of the city that the subject is living in, and the development of new technology. However, quantitative studies have shown some contradictions to existing research. Consequently, we have accepted some of the null hypothesis.

Throughout the help of the social platforms, we have reached 117 individuals that expressed a willingness to participate in the study. However, only 106 individuals were taken into consideration during the performance of the statistical analysis. In order for the individual to be included in the sample of this study, they needed to live in Sweden for the majority of the past 24 months. The topic of contactless payments is still quite new for the population. People are not fully aware of all contactless methods of payments and its' possibilities. Simultaneously, as predicted in part 2.10.2 younger generation tend to use more contactless payment than the older generation throughout the way that they grow up, which is around technologies and innovation (Plowman & McPake, 2013).

5.2 New technologies

The literature about the new technology motivated the first two hypotheses. Since after combining the development of technologies with the research performed within different factors of consumer behavior, we have noticed that it has significant potential as a possible factor that has an impact on population consumer behavior. The development within technology also influenced the sphere of the methods of payments by offering security codes, mobile wallets, or P2P apps (Capgemini, 2016). The population that is already familiar with development within technology is more likely to adapt faster to the upcoming changes than the population that is not using a lot of innovative items (Boden, Maier & Wilken, 2020). Sweden has been recognized as a cashless society since it provides possibilities of the transfer and usage of money under different forms (Arvidsson, 2019). By combining these

characteristics of the Swedish population being a cashless society with the development of technology, the first hypothesis was created.

H1: The majority of society is using a contactless method of payment.

The first hypothesis was aiming to examine if the statement created by authors that claimed that the majority of the Swedish population is using the contactless method of payment was true. After performing the survey, we can see that 88.5% of all people that took part in the study stated that they are using a contactless method of payment when possible (see Figure 4). That is why we can say that the population on which the research was performed is a cashless society that simultaneously is consistent with the previously existing research.

Nowadays, smartphones have a noticeable impact on individuals' behaviors and decisions that they make (Capgemini, 2016). The given statement has motivated the hypothesis number two. In this hypothesis, the authors were trying to study if the mobile payment possibility would affect OTG consumption.

H2: Mobile payments increase OTG consumption

The second hypothesis that was motivated by this section was focused on mobile payment. The study aimed to show if the possibility of mobile payments has any influence on OTG consumption and if it could consequently increase the OTG purchases. However, the statistical analysis has shown an evident lack of any correlations that could allow us to accept the hypothesis. The null hypothesis was accepted, consequently proving that mobile payment does not increase OTG consumption, which in the end cannot be recognized as one of the factors that influence consumer behavior in OTG consumption. However, they did show a higher sensitivity when performing an analysis between the percentage of purchases paid for with contactless payment and the frequency of OTG consumption.

5.3 Mass Media

Mass media has influenced people's perceptions for many years or even centuries (Plowman & McPake, 2013). However, the most affected part of society by media is the young population known as millennials (Lusted, 2009; Muskat et al., 2013). Due to the concept of Kids Are Getting Older Younger (KAGOY), young people are adapting to the rapid changes of the world much faster than their parents or grandparents (Cristea et al., 2014).

Following the research within this field, the authors of this thesis tried to argue that the young generation tends more toward new trends, which is a contactless method of payment in this case than the older generation. The findings within the theoretical framework are stating that millennials, young adults born in the 90s, tend to be more influenced by mass media and society than the older generation (Cristea et al., 2014). In this study, we decided to under

the concept of millennials include individuals born at the beginning of 00s since they are becoming young adults. Within the process of the creation the hypothesis number three, we have assumed that young adults are willing to spend more money on OTG consumption than older generations as they have grown up in a fast-paced society and are quick craving solutions, as mentioned in theory on gaming mentality (Plowman & McPake, 2013). Therefore this hypothesis was stated:

H3: Millennials are spending money more often on OTG consumption than the older generation

Therefore, as can be seen in table number 4, our statistical research proved that this assumption is correct. Young people referred to in this study as millennials are consuming more OTG products than the older respondents, and that gives them more opportunities to use contactless payment methods.

5.4 Impulse buying

Impulse buying is recognized as a subconscious need for a purchase of an item that was not identified as needed before the purchase (Cobb & Hoyer, 1986). As the city is more prominent, more places that could be affecting impulse buying appears (Bibri, & Krogstie, 2017). People are going out more often and spending their leisure time outside of their houses or apartments since they have more options to choose from (Chaturvedi, 2015). Consequently, the fourth hypothesis was created:

H4: The option to pay with a contactless payment method increases OTG consumption more when the respondent is living in a larger city for the three community sizes of 0 (less than 50 000 inhabitants), 1 (more than 50 000 inhabitants but less than 200 000 inhabitants) and 2 (more than 200 000 inhabitants).

The data collection and analysis has shown some contradiction to this assumption made by the authors of this thesis (see table 5). Consequently, we had to accept the null hypothesis. The statistical part of this research has claimed that the usage of a contactless payment method holds a more substantial influence on OTG consumption in smaller cities and larger cities compared to medium cities. However, by simply looking at the connection between the size of the city and the frequency of OTG purchases, it is clear that respondents in a larger city do more often get involved in OTG purchases.

The theoretical framework stated that several factors have an impact on impulse control. Consequently, this influences people's buying behavior that has a mirror effect on the increment of the total purchases of goods (Beatty, & Ferrell, 1998). Contactless methods of payment are making the process of finalizing the transactions faster. This process could encourage individuals to shop more often. However, we have also tested if consumers

with a high percentage of the purchases finalized by contactless payment methods have a lower impulse control that could be assumed by given frameworks.

H5: Consumers that pay a higher percentage of their total physical purchases with a contactless payment method have lower impulse control.

After the statistical test to check the correlation, we could see that the hypotheses that involve impulse buying are true. Consequently, we can say that impulse buying is one of the factors that the usage of a contactless payment method is linked to a, lower impulse control that could be considered a significant driver for OTG consumption.

6. Conclusions

This section is presenting the main results of the paper, along with applying empirical findings to the research purpose.

Statistically proving an underlying, perhaps unconscious, consumption behavior holds particular challenges. Conducting experimental research might have captured more of the underlying psychological motivations for consumption as an innovative research design allows you to hold other variables constant and test for causal relationships (Collis & Hussey, 2014). Contactless payments do, however, contain some influence over consumption patterns. After performing a set of statistical tests over the sample, we have proved that the age has a significant impact over OTG consumption and that a contactless method of payment is related to a subject's impulse control. Young people tend to shop OTG more frequently and are more familiar with the technological changes that affect their usage of the contactless payment methods. Consequently, they are using it more often than older people. Additionally, as can be seen in figures 12, 13, and 14 in appendix 3, 17 percent of respondents think that the option to pay using a contactless payment method increases their OTG consumption. 20.8 percent believe that the option to pay with a contactless payment method increases their consumption in general, and 16.3 percent feel like the option to pay with a contactless payment method is reducing their impulse control. This could imply that some consumers are unaware of the influence it holds on their consumption. It is also highly likely that some individuals are more sensitive to external influences on consumption behavior (Beatty & Ferrell, 1998).

7. Discussion

The last chapter presents limitations that the research met, implication, revised conceptual framework and the possible suggestions for future research.

7.1 Implication

As payment terminals that support this technology are being installed at a greater scale, merchants and card providers need to understand the implications of this new technology on consumer behavior (Nets, 2020). This study proved that the development of technologies such as mobile payment options had not had an impact on consumer behavior. However, contactless methods of payment are popular, especially among the younger part of the population. This statement could be assumed with the help of hypothesis number three, where we have proved that young people are consuming more goods from OTG consumption, so their options for the usage of the contactless payment methods are more frequent. This statement could help retailers in noticing how contactless payment methods can help them in reaching more consumers. The presented study has shown that the usage of contactless payment has an impact on impulse buying. This agrees with the statement provided before that impulse buying has an influence on consumer behavior within OTG consumption (Beatty & Ferrell, 1998).

7.2 Revised Conceptual Framework

After performing statistical analysis, the authors of this thesis could examine which of the hypothesis were true and which were not. Three external factors influence the usage of contactless payments in OTG consumptions. However, that usage differs from factor to factor. Impulse buying is recognized as the most significant factor within consumer behavior and, when used properly, can reach a lot of new possible customers. On the other hand, the development of mobile payments and the size of the city does not have an influence on the sample used in this study, which was a surprising discovery for the authors.

7.3 Research Limitation

Weisberg (2005) emphasized another important consideration by explicitly adding survey effects to the trade-offs between survey errors and survey constraints. Rather than involving errors that can be minimized, these effects include choices that must be made in survey design for which there is no correct decision. For example, asking question A before question B may affect the answers to question B. Still, asking question B before question A may affect the responses to question A. Thus, it may be impossible to remove question order effects in a survey regardless of how many resources are spent on them.

7.3.1 Illegal businesses

One of the people who has filled up the given survey gave feedback about the last question that was asked in the questionnaire. The last question asked to mark the feeling about the cash not being used in the payment transaction. That particular person gives us a more broad explanation of the reason why they marked that the money will not disappear from the marketplace. People believe that due to the many illegal businesses or even small, not fully legal transactions, people prefer to use cash in those cases. There are big odds that the physical money will stop being used in the financial transaction, but it will still apply to the illegal, black market.

7.4 COVID -19

COVID -19, also known as the coronavirus, is a worldwide pandemic ongoing in 2020 when this research thesis was written. Personal hygiene and caution are essential in situations like this. Precautions measurements like conducting all education from home are taken at high schools and universities throughout Sweden (Government Offices of Sweden, 2020). Due to the increment in personal hygienic cautiousness and the recommendations from the government on social distancing, there was an unusually high adaptation of contactless payments. Between week 11 and week 16, adaptation rose from 47.4% to 50.2% (Nets, 2020). Big banks like SEB and Nordea have doubled the limit for contactless payments without entering the pin code to reduce the spread of the virus (Axelsson, 2020).

7.5 Future Research

This research was performed on a small sample with the intention not to prove absolute relationships but to discover factors that potentially hold an influence over consumption behaviour for further deeper research as the existing research within this field is very scarce.
The possibility to reconstruct this survey-based research as an experimental-based thesis could help to find further insights on the psychological effects on consumer behavior, it could also help find differences in motivating factors for different segments of OTG consumption. As this research was performed at the beginning of the corona pandemic, the long-term implications that will come from the sudden increase in adaptation of contactless payment methods due to hygienic reasoning are not yet evident. Future research could be conducted with a focus on how contactless payments are influencing other areas of consumption and general consumer patterns. Along with On-The-Go consumption, mobile payments are still quite new for society and are still spreading. Consequently, the research results found within mobile payments could possibly differ within 10-20 years since it is becoming more and more popular and accepted. The pandemic could cause a decrease in OTG consumption since the majority of the population is working from home which consequently could be an interesting subject to study and examine if the current situation is extended further. However, these are expected to be short-term consequences as society is opening up ones again.

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APPENDIX 1

English Survey - Contactless Payments

Information:

This is a survey for our bachelor thesis.
Your answers will be anonymous and the data will be deleted ones the thesis is finished.
Contactless Payments are physical payments where the card/phone/smartwatch that you are using to make the payment is held in front of the card terminal.
We really appreciate you taking the time to answer this survey, have a great day!
/Johanna & Roksana

- How old are you?
- Where do you live?
  - Blekinge Län
  - Dalarnas Län
  - Gotlands Län
  - Gävleborgs Län
  - Hallands Län
  - Jämtlands Län
  - Jönköpings Län
  - Kalmar Län
  - Kronobergs Län
  - Norrbottens Län
  - Skåne Län
  - Stockholms Län
  - Södermanlands Län
  - Uppsala Län
  - Värmlands Län
  - Västerbottens Län
  - Västernorrlands Län
  - Västmanlands Län
  - Västra Götalands Län
  - Örebro Län
  - Östergötlands Län
- I live in a…
  - Big City (over 200 000 inhabitants)
  - Medium-sized City (50 000-200 000 inhabitants)
  - Smaller City (less than 50 000 inhabitants)
- Do you have Swedish citizenship?
  - YES
  - NO

- What is your highest finished education?
  - Primary School
  - High School or equivalent
  - Bachelor Degree or equivalent
  - Master Degree or equivalent
  - Other post-high school education (culinary school, beauty school etc.)
- Have you spent the majority of the past 24 months in Sweden?
  - YES
  - NO
- How many banks are you a customer at?
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10
  - 10+
- How many cards (bank cards, credit cards, digital cards) do you have?
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10
  - 10+
- Do you use contactless payment options (Blip, Apple Pay, Samsung Pay etc) when possible?
  - YES
  - NO
- If you answered yes, which one do you use more often?
  - Blipping a physical card
  - Apple Pay (Phone or Watch)
  - Samsung Pay (Phone or Watch)
- If you answered no, why not?

- ➢ I don't know if it is possible with my card
- ➢ I only pay by cash
- ➢ It feels unsafe
- ➢ It feels difficult

❖ Do you appreciate the option to pay using a contactless payment method (Blip, Apple Pay, Samsung Pay etc)?
- ➢ YES
- ➢ NO
- ➢ Doesn't matter to me

❖ If you answered yes, why?
- ➢ It's easy
- ➢ It's faster
- ➢ I don't have to bring a physical card
- ➢ I like using the latest technology

❖ If you answered no, why not?
- ➢ I'm content with my other payment options
- ➢ It feels unsafe
- ➢ It feels difficult

❖ How many percent of your total physical purchases do you pay using a contactless payment option?

❖ How many per cent of your physical purchases within the Blip-limit (often max. 200-250 SEK) do you pay using a contactless payment option?

❖ You purchase something for 200 SEK, how hard do you find it to spend the money if you pay by cash?

- You purchase something for 200 SEK, how hard do you find it to spend the money if you pay by card (putting the card in the terminal and punching in the code)?

- You purchase something for 200 SEK, how hard do you find it to spend the money if you pay by a physical contactless payment method, blipping the card?

- You purchase something for 200 SEK, how hard do you find it to spend the money if you pay using a contactless digital payment method, phone or smartwatch?

ON-THE-GO (OTG) CONSUMPTION

Information:

OTG Consumption is the purchase and consupmption of food/drinks while in transit between two places. This could for example be the coffee on your way to work, lunch on the train, the juice at the airport or the ice cream at the gas station.

- How often do buy food/snacks/drinks OTG?
  - Several times per day
  - Once a day
  - A few times a week
  - A few times a month
  - A few times a year
  - Never
- Do you sometimes feel like you make these purchases more often than you would have liked to or had planned on?
  - YES
  - NO
  - I don't know/I don't want to answer
- If you answered yes, why?
  - I feel like I am eating to unhealthy
  - I feel like I am spending to much on this

- ➢ I have bad impulse control
- ➢ I don't finish the food/drinks that I buy
- ➢ I spend to much time on this

❖ How good would you say that your impulse control is in these situations?

❖ How many per cent of these OTG purchases would you estimate that you pay using a contactless payment method?

❖ How do you feel that the option to pay using a contactless payment method impacts your impulse control?
- ➢ Improves it
- ➢ Doesn't impact
- ➢ Weakens it

❖ If you only had the option of paying with a traditional card payment (putting the card in the terminal and punching in the code) do you think this would increase/decrease your OTG consumption?
- ➢ INCREASE IT
- ➢ IT WOULDN'T IMPACT IT
- ➢ DECREASE IT

❖ Do you feel like the option to pay using a contactless payment method is increasing/decreasing your OTG consumption?
- ➢ INCREASING IT
- ➢ DOESN'T IMPACT IT
- ➢ DECREASES IT

❖ Do you feel like the option to pay using a contactless payment method increases/decreases your consumption in general?
- ➢ INCREASES IT
- ➢ DOESN'T IMPACT IT
- ➢ DECREASES IT

❖ If you answered that you think your consumption increases, why?
- ➢ It's easy
- ➢ It's fun
- ➢ It's quick
- ➢ You don't have to touch the card terminal
- ➢ You don't know how much your paying
- ➢ You know how much you are paying but you're not aware of it

- Do you feel like contactless payments are risky/unsafe?
  - YES
  - Don't have an opinion/Don't want to answer
  - NO
- Do you think that the swedish population will stop using cash within the next ten years?

APPENDIX 2

Swedish survey - Kontaktlösa Betalningar

Information:

Det här är en undersökning för vår kandidatuppsats.

Dina svar kommer vara anonyma och raderas när uppsatsen är klar.

Kontaktlösa betalningar är fysiska betalningar där kortet/telefonen/klockan som används hålls framför kortterminalen, det som med ett fysiskt kort kallas för att blippa.

Vi uppskattar verkligen att ni tar er tid att fylla i den här undersökningen, ha en fortsatt bra dag!

/Johanna & Roksana

- Hur gammal är du?
- Var bor du?
  - Blekinge Län
  - Dalarnas Län
  - Gotlands Län
  - Gävleborgs Län
  - Hallands Län
  - Jämtlands Län
  - Jönköpings Län
  - Kalmar Län
  - Kronobergs Län
  - Norrbottens Län
  - Skåne Län
  - Stockholms Län
  - Södermanlands Län
  - Uppsala Län
  - Värmlands Län
  - Västerbottens Län
  - Västernorrlands Län
  - Västmanlands Län
  - Västra Götalands Län
  - Örebro Län
  - Östergötlands Län
- Jag bor i en…
  - Storstad (över 200 000 invånare)
  - Mellanstor Stad (50 000-200 000 invånare)
  - Mindre Tätort (under 50 000 invånare)
- Är du svensk medborgare?
  - JA

- ➢ NEJ

- ❖ Vad är din högsta avslutade utbildning?
  - ➢ Grundskola
  - ➢ Gymnasieutbildning eller Motsvarande
  - ➢ Högskole-/Universitetsstudier (Grundnivå)
  - ➢ Högskole-/Universitetsstudier (Avancerad Nivå)
  - ➢ Övrig Eftergymnasial Utbildning
- ❖ Har du spenderat majoriteten av de senaste 24 månaderna i Sverige?
  - ➢ JA
  - ➢ NEJ
- ❖ Hur många banker är du kund i?
  - ➢ 1
  - ➢ 2
  - ➢ 3
  - ➢ 4
  - ➢ 5
  - ➢ 6
  - ➢ 7
  - ➢ 8
  - ➢ 9
  - ➢ 10
  - ➢ 10+
- ❖ Hur många betalkort (bankkort, kreditkort, digitala kort) har du?
  - ➢ 1
  - ➢ 2
  - ➢ 3
  - ➢ 4
  - ➢ 5
  - ➢ 6
  - ➢ 7
  - ➢ 8
  - ➢ 9
  - ➢ 10
  - ➢ 10+
- ❖ Använder du kontaktlösa betalningsalternativ (Blipp, Apple Pay, Samsung Pay etc) när det är möjligt?
  - ➢ JA
  - ➢ NEJ
- ❖ Om du svarade ja, vilket alternativ använder du oftast?
  - ➢ Blippa ett fysiskt kort
  - ➢ Apple Pay (Telefon eller Klocka)
  - ➢ Samsung Pay (Telefon eller Klocka)

- Om du svarade nej, varför inte?
  - Jag vet inte om det är möjligt med mitt kort
  - Jag använder bara kontanter
  - Det känns osäkert
  - Det känns svårt
- Uppskattar du möjligheten att betala med ett kontaktlöst betalningsalternativ (Blipp, Apple Pay, Samsung Pay etc)?
  - JA
  - NEJ
  - Spelar ingen roll för mig
- Om du svarade ja, varför?
  - Det är smidigt
  - Det går snabbare
  - Jag behöver inte ta med mig ett fysiskt kort
  - Jag tycker om att använda den senaste tekniken
- Om du svarade nej, varför inte?
  - Jag är nöjd med mina andra betalningsalternativ
  - Det känns osäkert
  - Det känns svårt
- Hur många procent av dina totala fysiska inköp betalar du med ett kontaktlöst betningsalternativ?

- Hur många procent av dina fysiska inköp inom Blipp-gränsen (oftast 200-250 kr) betalar du med ett kontaktlöst betalningsalternativ?

- Du köper något för 200 kr, hur jobbigt upplever du det att spendera pengarna om du betalar med kontanter?

- Du köper något för 200 kr, hur jobbigt upplever du det att spendera pengarna om du betalar genom kontaktlös kortbetalning?

- Du köper något för 200 kr, hur jobbigt upplever du det att spendera pengarna om du betalar genom kontaktlös mobilbetalning?

OTG (On The Go) KONSUMPTION

OTG Konsumption är när man köper och förtär något medans man färdas mellan ställen. Det kan till exempel vara kaffet på väg till jobbet, lunchen på tåget, juicen på flygplatsen eller glassen på macken.

- Hur ofta handlar du mat/snacks/dryck OTG?
  - Flera gånger per dag
  - En gång per dag
  - Några gånger i veckan
  - Några gånger i månaden
  - Några gånger per år
  - Aldrig
- Känner du att du ibland gör dessa inköp oftare än du vill eller hade räknat med?
  - JA
  - NEJ
  - Jag vet inte/Vill inte svara
- Om du svarade ja, varför?
  - Jag känner att jag äter för onyttigt
  - Jag spenderar för mycket pengar
  - Jag har dålig impulskontroll
  - Jag äter inte upp det jag köper
  - Jag spenderar för mycket tid på detta
- Hur bra skulle du säga att din impulskontroll är i dessa situationer?

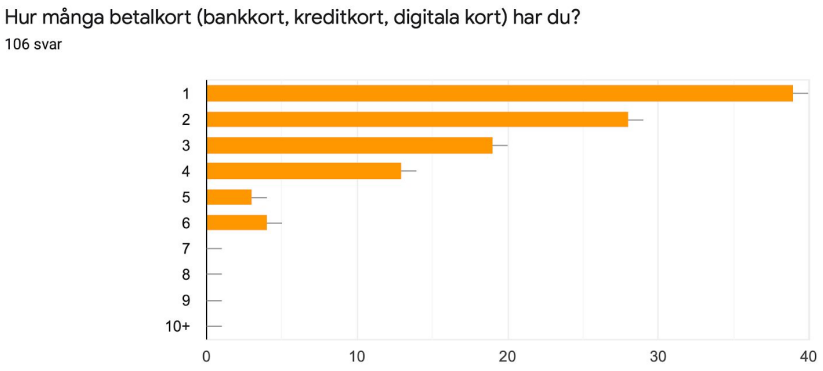
- Hur stor andel av dessa OTG inköp skulle du uppskatta att du betalar med en kontaktlös betalningsmetod?

- Känner du att möjligheten att betala med en kontaktlös betalningsmetod påverkar din impulskontroll?
  - Förbättrar
  - Påverkar inte
  - Försämrar
- Om du bara hade alternativet att genomföra en traditionell kortbetalning (stoppa in kortet i terminalen och knappa in koden tror du att detta skulle öka/minska din OTG konsumtion?
  - ÖKA DEN
  - INTE PÅVERKA
  - MINSKA DEN
- Upplever du att möjligheten att använda en kontaktlös betalningsmetod ökar/minskar din OTG konsumtion?
  - ÖKAR DEN
  - PÅVERKAR INTE
  - MINSKAR DEN
- Känner du att möjligheten att betala med en kontaktlös betalningsmetod ökar/minskar din konsumtion i allmänhet?
  - ÖKAR DEN
  - PÅVERKAR INTE
  - MINSKAR DEN
- Om du svarade att du tror att din konsumtion ökar, varför?
  - Det är lätt
  - Det är roligt
  - Det går fort
  - Man behöver inte röra vid kortterminalen
  - Man vet inte hur mycket man betalar
  - Man vet hur mycket man betalar men man tänker inte på det
- Känner du att kontaktlösa betalningar är riskfyllda/osäkra?
  - JA
  - Har ingen åsikt/Vill inte svara
  - NEJ
- Tror du att den svenska befolkningen kommer att helt sluta använda kontanter inom en tioårsperiod?

APPENDIX 3

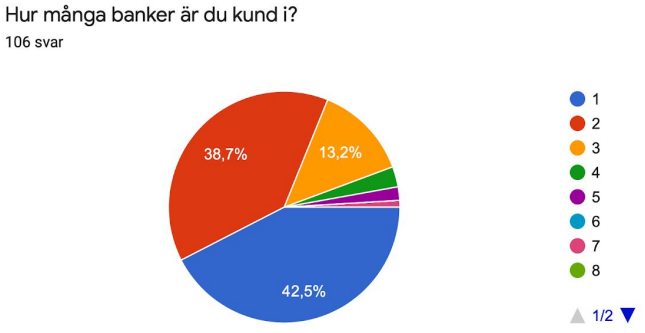
Additional Descriptive Statistics

Figure 9: Number of Payment Cards



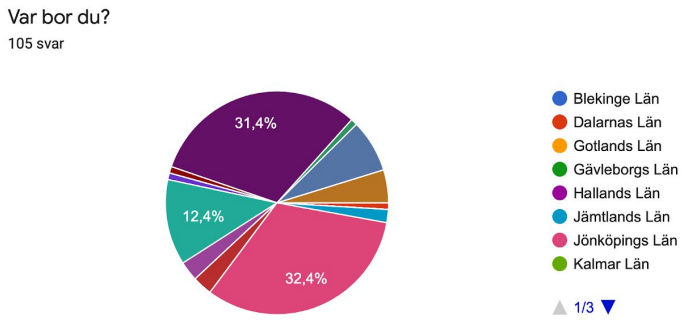
How many payment cards (bank cards, credit cards, digital cards) do you have?

Figure 10: Number of Banks



How many banks are you a customer at?

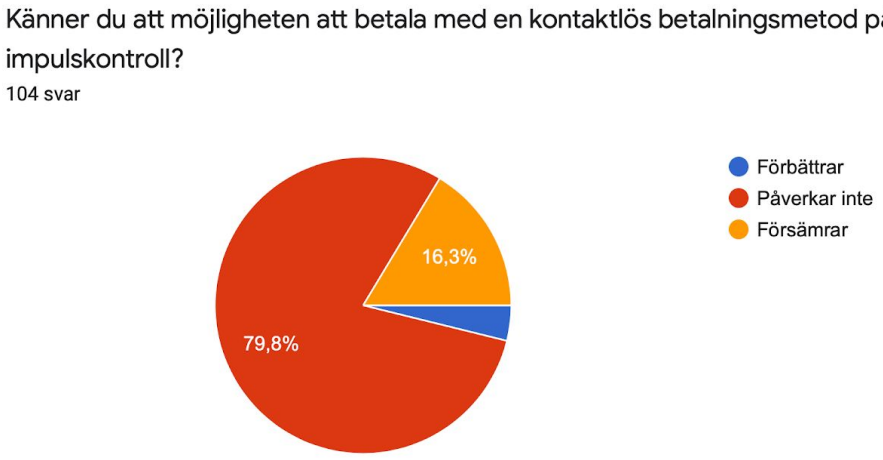
Figure 11: Geographical Location



2.4 % Jönköpings Län
31.4% Västernorrlands Län
12.4 % Stockholms Län
7.6% Västra Götalands Län
4.8 % Östergötlands Län
2.9 % Kronobergs Län
2.9 % Skåne Län
1.9 % Jämtlands Län
1 % Uppsala Län
1 % Västerbottens Län
1 % Västmanlands Län
1 % Dalarnas Län

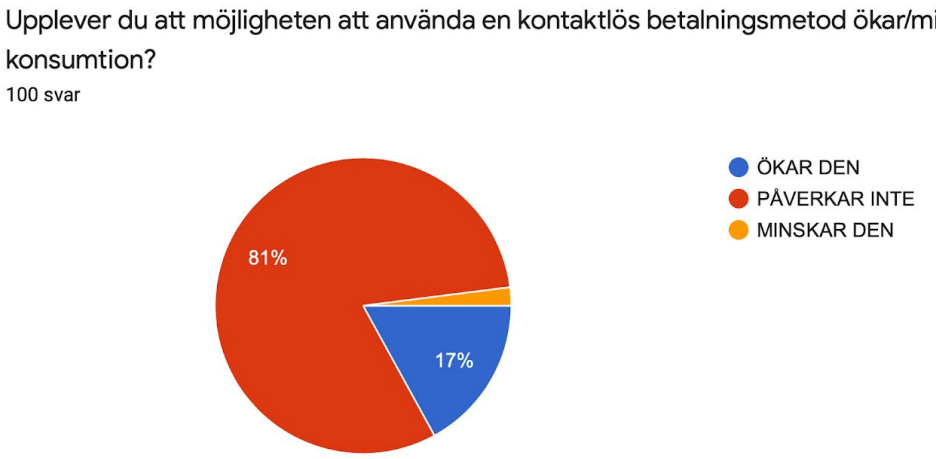
Where do you live?

Figure 12: Contactless Payments Impact on Impulse Control



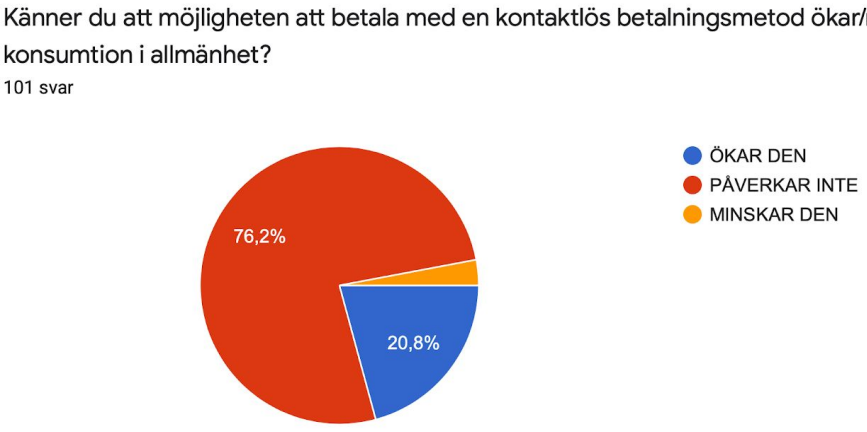
How do you feel that the option to pay using a contactless payment method impacts your impulse control?
3.8 % Improves it
79.8 % Doesn't impact
16.3% Weakens it

Figure 13: Contactless Payments Impact on OTG Consumption



Do you feel like the option to pay using a contactless payment method is increasing/decreasing your OTG consumption?
17% INCREASING IT
81% DOESN'T IMPACT IT
2% DECREASES IT

Figure 14: Contactless Payments Impact on Overall Consumption



Do you feel like the option to pay using a contactless payment method increases/decreases your consumption in general?
20.8% INCREASES IT
76.2% DOESN'T IMPACT IT
3% DECREASES IT

Additional Inferential Statistics

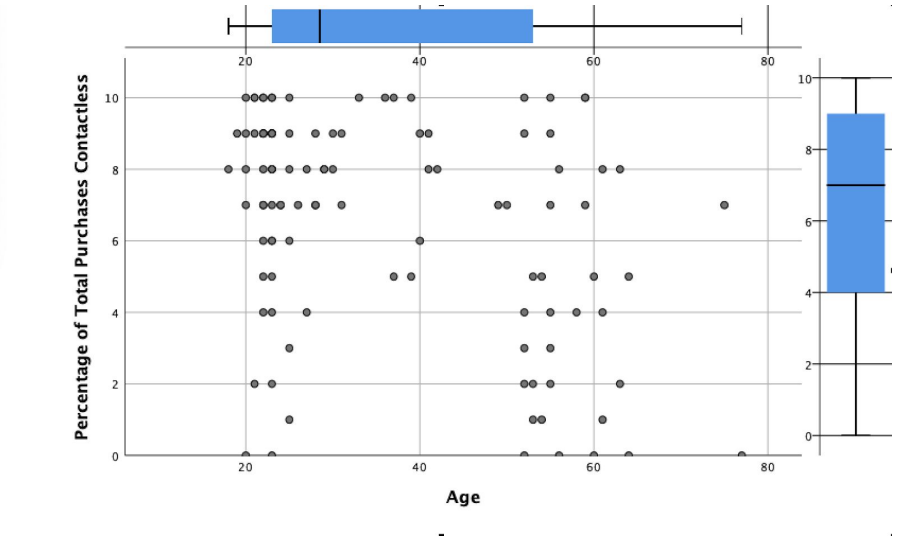



Chart 4: Age - Percentage of Total Purchases Contactless