

# **Acceptance of digital payment methods in Switzerland**

**Bachelor Project submitted for the degree of  
Bachelor of Science HES in International Business Management**

by

**Allison MILLA RODRIGUEZ**

Bachelor Project Advisor:  
**Nicolas DEPETRIS CHAUVIN, HES Professor.**

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## **Declaration**

This Bachelor Project is submitted as part of the final examination requirements of the Haute école de gestion de Genève, for the Bachelor of Science HES-SO in International Business Management.

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Allison MILLA RODRIGUEZ

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## Executive Summary

This work examines the adoption of digital payment methods in Switzerland. In developed countries, the use of cash has been decreasing for decades and the use of digital payment means have been growing considerably. However, according to some articles, Swiss people are reluctant to change their payment habits and to give up the use of cash. Switzerland being part of the FATF is the only nation where you can pay in cash up to 100,000 Swiss francs and it has the highest denomination banknote, 1,000 Swiss francs, compared to any other European nations.

In order to fight terrorist financing and money laundering, regulations have been put in place in many European countries so as to limit the amount of cash used in a single transaction. In addition to this, the European Commission is developing an action plan to introduce restrictions at the European level to fight against illegal activities which the first consultation was thought not convincing enough. In fact, electronic payments offer traceability and transparency which allows verifications in case of fraudulent transactions. However, the main concerns of cashless payment methods are security, confidentiality, and costs (charges, interests).

The aim of this study is, using an online survey, to find out what perceived factors influence Swiss residents when using digital payments, and to understand what the main reasons are that drive people's choice regarding different payment means. It has been noticed that there are specific reasons for using different payment method. Demographic variables can have an influence on the use of payment methods. The use of the debit or credit card, as well as mobile phone applications are influenced by age. The use of the credit card, e-banking, and PayPal are influenced by levels of education. The main advantages for cashless payment methods are convenience and security because there is no need to carry cash. However, the main drawbacks can be poor internet connections linked to unreliable machines and costs.

Regulations and restrictions lead to the opposite of the desired effect because they are perceived as limiting freedom. In Switzerland, there is an initiative that would encourage people to use digital payment methods. Indeed, this initiative wants a better monetary and banking system, which wants all electronic money to be produced by the BNS, in addition to coins and banknotes. However, it is a completely different system to any other used in different nations and that could be detrimental to our economy. Finally, the best way, to encourage people to use more cashless payment systems is to improve the infrastructure in order to have a better internet connection, and fewer costs.

# Contents

<b>Declaration.....</b>	<b>i</b>
<b>Acknowledgements .....</b>	<b>ii</b>
<b>Executive Summary.....</b>	<b>iii</b>
<b>Contents.....</b>	<b>iv</b>
<b>List of Tables .....</b>	<b>v</b>
<b>List of Figures.....</b>	<b>v</b>
<b>List of Abbreviations .....</b>	<b>vi</b>
<b>1. Introduction.....</b>	<b>1</b>
<b>2. Methods of payment.....</b>	<b>3</b>
<b>2.1 Brief history.....</b>	<b>3</b>
<b>2.2 Evolution of payment methods .....</b>	<b>4</b>
2.2.1 <i>Coins and banknotes .....</i>	<i>4</i>
2.2.2 <i>Cards and electronic payments.....</i>	<i>5</i>
2.2.3 <i>Mobile payment applications .....</i>	<i>7</i>
<b>2.3 Restrictions .....</b>	<b>8</b>
<b>2.4 Full money initiative.....</b>	<b>9</b>
<b>3 Adoption of payment methods .....</b>	<b>11</b>
<b>3.1 Research methodology.....</b>	<b>11</b>
<b>3.2 Data and data sources .....</b>	<b>13</b>
<b>3.3 Analysis of the regression results .....</b>	<b>19</b>
3.3.1 <i>Use of cash.....</i>	<i>19</i>
3.3.2 <i>Use of debit card .....</i>	<i>21</i>
3.3.3 <i>Use of credit card .....</i>	<i>22</i>
3.3.4 <i>Use of e-banking.....</i>	<i>25</i>
3.3.5 <i>Use of PayPal .....</i>	<i>27</i>
3.3.6 <i>Use of mobile payment application.....</i>	<i>28</i>
<b>4 Discussion .....</b>	<b>30</b>
<b>4.1 Adoption of cashless payment systems in Switzerland.....</b>	<b>30</b>
<b>4.2 Recommendations for a better implementation.....</b>	<b>33</b>
4.2.1 <i>Better infrastructure.....</i>	<i>33</i>
4.2.2 <i>Reduce costs .....</i>	<i>33</i>
<b>5. Conclusion.....</b>	<b>34</b>
<b>Bibliography.....</b>	<b>36</b>
<b>Appendix 1: Means of payment survey.....</b>	<b>41</b>
<b>Appendix 2: Means of payment survey responses .....</b>	<b>45</b>
<b>Appendix 3: Modified data for linear regressions .....</b>	<b>54</b>
<b>Appendix 4: Linear regressions with Stata software .....</b>	<b>56</b>

## List of Tables

Table 1:	Regression results.....	17
Table 2:	Summary of the results.....	30

## List of Figures

Figure 1:	Use of cash by generation .....	20
Figure 2:	Amount of cash carried by generation .....	20
Figure 3:	Use of the debit card by generation .....	21
Figure 4:	Use of the credit card by generation .....	22
Figure 5:	Use of the credit by the level of education .....	23
Figure 6:	Use of E-banking by the level of education.....	25
Figure 7:	Use of PayPal by level of education .....	27
Figure 8:	Use of mobile payment applications by generation .....	28

## **List of Abbreviations**

ATM: Automated Teller Machine

BNS: Banque National Suisse (Swiss National Bank)

BVR: Bulletin de Versement avec numéro de Référence (payment slip)

ECB: European Central Bank

EU: European Union

FAFT: Financial Action Task Force

ID: Identity Document

ML/TF: Money laundering and terrorism financing

MROS: Money Laundering Reporting Office Switzerland

NFC: Near Field Communication

PDQ: Process data quickly

POS: Point of Sale

RFID: Radio Frequency Identification Devices

TDG: Tribune de Genève (Geneva newspaper)

VISA: Visa International Service Association

# 1. Introduction

Cashless payment systems have become a significant alternative to cash. As a consequence, the use of cash has been declining for decades, and people are relying on various forms of dematerialized payment methods. More and more people are using credit and debit cards which now have NFC that allow contactless payments as well as mobile applications. Indeed, these means of payment make daily life easier for people by facilitating purchases.

At the same time, there is a trend in restrictions of cash payments supported by regulations that force people to pay by electronic means depending on the amount and/or the country. It is also believed that the less cash circulation there is, the less criminality there will be. However, the risks encountered such as money theft, data collection and privacy monitoring are often difficult to counter as hackers can come from all over the world, including countries difficult to deal with. It seems that there is no decrease of criminality, but rather a shift in the type of criminality, from street crime to cybercrime.

The most popular method of money laundering is the physical transportation of cash. As a result, banning cash payments could be an efficient way to combat money laundering and terrorism financing, because these cashless payment methods offer better traceability and transparency which contributes to fight against illegal practices. The ECB is thinking of removing 500 euros bills whereas in Switzerland you can use cash for payments up to 100,000 Swiss francs, which contradicts the trend in Europe. The Scandinavian countries use the least cash and are considering the abolition of cash to rely only on virtual money. Therefore, new cashless payment systems could be an effective way to combat illegal practices, but privacy and data protection are an issue.

According to the FATF 2016 Mutual Evaluation Report, Switzerland should reinforce its surveillance of money laundering and terrorism financing linked to the use of cash. In 2014, Switzerland's Federal Department of finance did not think that there was any need for more regulations concerning the use of cash in the economy. Perhaps some measures should be taken to ensure better transparency by all the stakeholders concerned. Now, technology brings new payments methods that can give large profits for intermediaries, as well as traceability, and convenience for the users for who it is difficult to balance all the pros and cons. For instance, when using electronic payment methods, we do not know if our personal data is sold to third-party companies for commercial purposes or correctly secured.



In this paper, we will present the historical development of electronic payments, as well as the evolution of different means of payment. It will be interesting to compare the practices implemented abroad and see if other means of payment would have a chance of success in Switzerland. It seems obvious that this shift will continue to deepen. That is why, we would like to find out the reasons and motivations of Swiss residents concerning their use of cash as well as how the payment habits will evolve in the next years.

A survey has been conducted and it intends to identify where Swiss residents stand regarding the level of adoption of dematerialized payment. This paper also intends to demonstrate the advantages of cashless payments as well as disadvantages. In order to identify if there is a relationship between the determinants and the use of different payment methods, the linear regression model will be used with Stata software. These linear regressions will help to interpret the results so as to be able to draw some conclusions.

Finally, this work is meant to be useful for businesses which want to be actors in the payments industry. The diversity of digital payment methods might increase even more with the advance of technology. The adoption of cashless payment systems will probably benefit the financial institutions granting them more control over the monetary system and the government will be able to monitor tax compliance better. The important thing is to promote cashless payment methods gradually without forcing people through restrictions, give people a choice and not to force them into compliance by implementing restrictions of use.

## 2. Methods of payment

### 2.1 *Brief history*

The methods of payments have been used to acquire goods and services, meaning everything that is generally accepted in return for a sale or provision of a good or service. Payment methods have been evolving constantly, from bartering to the first use of money, from currencies to electronic payments. In fact, this change has evolved mainly due to technological progress and today there are many forms of payments which form a fundamental part of daily human life. Indeed, everyone is concerned by these means of payment because they are ubiquitous.

For a long time, banknotes and coins remain an important medium of exchange worldwide. The transition to dematerialized money is sometimes not so obvious because it is recent development and the relationship to cash is deeply rooted in habits. Moreover, people have a sentimental attachment to their currency and they would not like to lose it. Finally, choosing to pay with cash or not, is in fact a cultural phenomenon. For instance, Scandinavian countries use much more cashless payment methods than other European countries.

Another main issue with fiat money is that it takes room and it is heavy and is dangerous to transport. Creating this fiat money has a cost. Therefore, other means of payment were created such as checks and bankcards and is slowly replacing fiat money. This change has continued through the years and now technological advance has brought in electronic payment methods. Therefore, dematerialized payments are replacing and removing physical money i.e. bills and coins with other intangible means. These alternatives can be defined into three categories: electronic, digital and virtual.

As far as virtual money is concerned, it is unregulated, and it is a monetary unit in binary information known as a cryptocurrency. Among them, only the bitcoin is allowed on some platforms to be used as a mean of exchange for goods and services. Those virtual currencies are considered very volatile because it is a decentralized currency. Indeed, there is no intervention of the State in case of inflation or deflation for instance. Moreover, it is an asset for investments, it is very attractive due to its volatility as it is possible to amplify gains as well as the losses. Finally, it is not a habitual mean of payment used everywhere yet and for that reason, it will not be covered in the analysis in this paper.

## **2.2 Evolution of payment methods**

### **2.2.1 Coins and banknotes**

In the beginning, only barter allowed trade. But, the main difficulty with bartering was to find someone who was interested in what you offered in order to exchange what you wanted. The limitation of bartering was the reason for the introduction of other objects that serve as mean of payments or exchange at that time. For a long time, the exchange of goods was practiced with things such as the animal teeth, shells and other rare stones which served as means of payment. After, gold, silver, bronze and copper coins started to be used. The coins had value because they were made of precious metal.

But, there was a shortage of coins and this is why notes with no intrinsic value became a mean of exchange. The value given to these paper notes was based on trust between the parties. Indeed, the first paper money was issued in China and it was intended to be used as a request to a later refund in coins for the value of the good purchased. Nevertheless, the issuance of coins was not sufficient, and notes started to be issued as a mean of payment and not just as a warranty for later reimbursement. Afterwards, both coins and banknotes became the main medium of exchange for buying goods and services all around the globe. Coins and banknotes are defined as fiat money and are declared by a government to be legal tender.

In Switzerland, the first banknotes appeared in 1907 at the national level after the creation of the BNS. Therefore, coins and banknotes became and remain the main means of payment until today. Furthermore, according to the article 99 of the Federal Constitution, the Confederation has the exclusive right to issue coins and banknotes. But, the Confederation has transferred its rights to the BNS. According to the BNS, the cost of producing one banknote including development, paper and printing is about 40 cents, which is significantly lower to the nominal value of any Swiss banknote.

As a consequence, the nominal value of a banknote is always above its intrinsic value. For more than a century, the BNS has issued nine series of banknotes in total. The eighth series remains valid until further notice and the ninth series is to be completed by 2019 which are more secure than the previous generation. Finally, from time to time new series of notes are created for better security and to protect the public against counterfeits.

### **2.2.2 Cards and electronic payments**

The first credit card was issued in 1914 by Western Union for its customers, giving them deferred payment privileges. Many companies active in the retail oil market started to promote their own cards for their clients. In the beginning, the aim of the card was to facilitate the purchase of oil and to win customer's loyalty. In the 1950s Bank of America launched the first general credit card. Because of banking regulations, they started to license their cards to other banks, but it became too laborious and so then BankAmericard was created.

Then, the network continued to grow and in 1976, BankAmericard became Visa. The first European headquarters was established in Switzerland in Lausanne. At the same time, the French banks and Barclays ensured the growth of the Visa brand in Europe, followed by the Spanish banks. Therefore, Visa was well established in Southern Europe that was a strong tourist destination. Visa Europe was constituted an autonomous company in 2004 with its headquarter in London.

In 1966, a group of banks formed the Interbank Card Association (ICA), and at the end of 1970 became known as MasterCard. This evolution has constituted a phenomenon of globalization in the economy and those two companies became the major international players in financial services but especially in terms of payment solutions. In Europe, the card appeared when Eurocard and Eurocheque merged. First, Eurocard introduced in 1964 by a Swedish bank named Wallenberg as an alternative to American Express.

A year later, Eurocard became a holding based in Brussels and entered into a strategic alliance with the Interbank Card Association being today MasterCard. As a consequence, Eurocard was well implemented in the North of Europe. Second, Eurocheque created in 1968 at the initiative of the European banking institutions. Eurocheque was originally an interbank agreement intended to replace the bilateral interbank agreements allowing the businesspeople as well as tourists to withdraw money at bank counters in any European country that participated on that agreement.

Eurocard and Eurocheque became aware of their possible synergies and merged in 1992 called Europay International. On the one hand, Eurocard had the expertise in the full emergence and its technology. On the other hand, Eurocheque had not only the card guarantee and access to the cash machines but also a system of recovery. This merging became then the first supplier in Europe in terms of payment services named Europay. Eurocard had an alliance with Mastercard, it facilitated the merger between Europay International and Mastercard in 2002. All of these mergers led to the large development of card payment systems in Europe.

Both MasterCard and Visa have continued to grow with a similar technical and operational model. They put in relationship four stakeholders: an issuing bank, an acquiring bank, a cardholder and an accepting merchant. Their infrastructure ensures the interfaces with the national and international system, i.e. cross border transactions.

Nowadays, the card still represents the majority of payments whether online or not. The cards whether debit, credit or prepaid are now available through the banks and financial institutions. In parallel, the lists of opportunities are growing such as the E-banking or Net-banking services which enables time and costs savings for both banks and customers. It reduces costs because of fewer bank counters and employees and the costs for the customers as is in general free for national transactions. It is time saving because the transactions are now directly online between a bank and a customer.

E-commerce has gained a large market share due to the increase of the use of bank cards, and the development of internet. Moreover, card payments whether debit or credit now represent the overwhelming majority of the internet and mobile payments. Additionally, their international acceptability whether physical or not has been a great asset to facilitate the cross-border transactions. Despite its simplicity and convenience of used that has led to its success, the card as a mean of payment on the internet has encountered several disadvantages especially due to its security issues. In fact, the use of a card to pay online is done by transmitting the card number, validity date, and the name of the cardholder, and that is a risk.

In other words, all the information needed to pay online appears directly on the card. Such process has led to a very strong development of fraud by compromising the data of the card, the commercial sites are often not sufficiently secure, and the card holder is not authenticated as such. As a consequence, it has led to various stakeholders, especially the banks, to put in place more secure devices and processes to enable e-commerce to grow, such as mini start card reader, USB key with an electronic certificate, one-time code received by SMS, and others.

Security is critical because risks of fraud exists, and customers must be protected. There are two kinds of fraud: one that requires the physical use of the card i.e. a counterfeit card or a stolen card. The other that does not require the physical use of the card but that needs information written on the card used in online payments. The card reduces physical theft and counterfeit of paper money, but the card does not prevent cyber theft and requires the creation of more sophisticated techniques and measures.

### **2.2.3 Mobile payment applications**

In recent years, new comers are entering the market due to the advance of technology and are gaining importance in terms of payment solutions. The lists of users are growing with purchases on the internet such as PayPal and mobile payment applications. Both are acting as intermediaries between the bank and the final customer. However, PayPal is known as the more secure for online purchases whereas mobile applications are taking more place in the market functioning as a wallet.

Mobile applications such as Apple Pay or Samsung Pay (big players in the phone industry) as well as TWINT attract part of the population, especially younger generations. In fact, those mobile applications offer more options than cash and a debit or credit card. Not only it allows to make online and physical purchases, but also to receive and transfer money from person to person. Moreover, there is the possibility to register loyalty cards which is like carrying physical ones in your wallet. This does not take into account cards such as an ID, a driver's license, or a student card that people also put in a wallet.

However, the main problem with these applications is that if your mobile phone battery runs out, it cannot be used to make any more purchases. In addition, the fact that the applications need internet or WIFI in order to function, this implies the need to pay for a mobile subscription or to pay some fees if it is prepaid. The use of those mobile phone applications depends on the infrastructure provided, such as power outlet with chargers to plug mobile phones, free internet access in POS and decreasing the price of mobile subscriptions. For instance, we could compare this with incentives that have been put in place to encourage the use of electric vehicles such as recharging stations.

Indeed, the digital means of payment really do make people's life easier, but it also gives them the feeling of not completely controlling expenses which can be a drawback. Not only, it is easier to click on a button to pay for goods and services, but the advertisements that appear more or less constantly thanks to the applications and encourage consumption. Certainly, the advertisements that appear are coupons or reductions for products which make people think unwittingly that it is a valuable opportunity to be seized at once, when in fact, they are incentives to consume more than usual. In other words, it is easier to spend money when all you see are digits on a screen, rather than when it is tangible bills and coins, even though the value of physical money is intrinsic. Therefore, the use of these facilities depends on the available existing infrastructures and the impression of spending control that predominates in this distinction.

## 2.3 **Restrictions**

The amount of cash a person can use on a single purchase is limited in most of the EU member States, so as to fight against money laundering and financing terrorism activities. For instance, in 2015 the French government lowered the maximum amount allowed to be paid in cash, down from 3,000 to 1,000 euros. Above that amount another electronic mean must be used. Moreover, in Sweden, most transactions are made by bankcards or mobile payments so that in a few years cash will very likely disappear. However, in Switzerland the maximum amount for a single purchase is capped at 100,000 Swiss francs, above which the buyer must present his ID in case of any suspicions of ML/TF and sale's personnel are required to notify MROS. In addition, Switzerland has the highest banknote denomination with 1,000 Swiss francs whereas the ECB would not issue new banknote of 500 euros anymore.

The FATF sets global anti-money laundering standards and assess how well countries comply. According to the Mutual Evaluation Report 2016 from the FATF, *“Switzerland should reinforce its analysis of ML/TF risks associated with the use of cash and legal persons. On the basis of this analysis, authorities should produce and implement suitable actions for managing and controlling risks”<sup>1</sup>*. Cash is widely used as a payment method and the high denomination banknote makes it easier to carry and use significant amounts of cash. Some companies already have internal regulations on the acceptance of cash such as the AMAG group that accept only payments up to 5,000 Swiss francs to mitigate risk concerning illegal practices. Certainly, this maximum amount is high compared to other European nations.

In 2016, the European Commission published a communication addressed to the Council and the Parliament of an action plan to fight against ML/TF. These actions consist of limiting the amount of cash payments to facilitate traceability and further investigation in case of criminal activities. After a public consultation in 2017, the majority opposed restrictions because it might have a negative economic impact and they doubted its efficiency in fighting illegal activities. As a result, there is an impact assessment to be published in 2018. However, the Swiss citizens are generally conservatives, and in 2014, Switzerland's Federal Department of Finance did not consider that there was a need for more regulations concerning the use of cash in the economy. As a result, Switzerland is subject to criticism when compared to restrictions adopted by other European countries.

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<sup>1</sup> Mutual Evaluation Report of Switzerland, 2016. Anti-money and counter-terrorist financing measures [online]. [viewed 18 November 2017]. Available from: <http://www.fatf-gafi.org/media/fatf/content/images/mer-switzerland-2016.pdf>

## **2.4 Full money initiative**

In October 2015, the “Full money initiative” launched by an independent association “Monetary modernization” has gathered 100,000 signatures, this initiative will be voted upon and it demands that improvement of the monetary and banking system be made. More precisely, this initiative aims to ensure that all electronic money is created by the BNS, as is the case for coins and banknotes. Today, electronic money registered in bank accounts in Switzerland has been created by the banks. In fact, there are two types of money: cash and the scriptural or bank money. This scriptural money is the largest money supply and it is created when banks give out credits. The people responsible for launching this initiative consider this as unsafe money which jeopardizes the financial system and, therefore, the entire economy. But, the creation of money by granting credit is limited, especially by the reserve ratio policy of the BNS and the legal framework. And banks can create money only if there is a demand for credit from households and companies.

Historically in the Constitution, the Swiss citizens voted in 1891 for the BNS to have the monopoly of coining and printing coins and banknotes because when banks were allowed to print their own notes, it caused insecurity and abuse. With the advent of electronic payment methods, banks have gradually recovered the possibility of creating money again. As a consequence, this initiative wants current technology to conform to the Federal constitution by given the monopoly of scriptural currency to the BNS so as to prevent banks from creating money. Today, physical money represents only 10% of the money supply in circulation while the remaining 90% is electronic money, which banks have created to finance their activities such as loans.

If the initiative succeeds, the banks could only allocate money from current and saving accounts so that would prevent bankruptcy of banks. Moreover, the BNS would issue money without interest to banks and increase the supply of money. The BNS would distribute it directly to the Confederation, Cantons, and the population. With the actual systems, the BNS issue money through the banks and by buying foreign currencies and for that the National Bank receives a compensation. With the initiative, according to the association which launched it, the physical and electronic money would guarantee the value of the Swiss francs because the BNS would mainly issue money for the general interest of the country. The credit allocations would be guaranteed because the BNS could continue to allocate loans to banks. Therefore, the BNS would avoid any credit scarcity and Switzerland would be protected better against any financial crisis. The Full money initiative party wants to make electronic money as secure as physical money and constitute a solid base for the economy.



However, the BNS and the Federal Council oppose this initiative and they recommend rejecting it. According to the Chairman of the BNS, Thomas Jordan, the initiative threatens the stability of the economy and the financial system. Indeed, there is no other country in the world that has adopted this strategy, and if it is accepted, the BNS would be under great political pressure. Moreover, the Federal State is opposed to this reform for the same reasons as the BNS. Indeed, the account holders would not find themselves better protected during financial crises as described in the initiative. According to the professor of economics at the university of Basel, Alexandre Berentsen, “the legislation resulting from the initiative could result in a great deal of uncertainty and banks could offer payments accounts in foreign currencies or cryptocurrencies as alternatives”.<sup>2</sup>

Moreover, according to the former Vice-President of the BNS, Jean-Pierre Danthine, the initiative is not the right answer to the fragility of the financial systems. He thinks that the next crises will not come from the banking systems like the previous crisis but could come from “shadow banking”, new financial institutions such as the hedge funds because of lack of regulations for those types of institutions. Moreover, there is the risk that Swiss commercial banks would be at a huge disadvantage compared to foreign banks, and that might be a risk in term of employment too.

This initiative could be detrimental to commercial banks and change the actual monetary systems completely. Digital money would be issued by the BNS without interest like the paper notes, that could bring security to the holding of digital money in general. In practice, the banks will no longer be allowed to create money and will only be able to lend money they have received from savers, other banks or the BNS. The funds will belong to the account holder and will not be lost in case of bank bankruptcy. The Swiss population will have to vote on this subject the 10<sup>th</sup> of June 2018. If accepted by the majority of the population, it could be thought that it might not be necessary to carry cash anymore because people will no longer be afraid of losing their money that is placed in a bank.

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<sup>2</sup> AWP 2017. L’initiative « monnaie pleine » promet un nouveau monde. Bilan [online]. 1 September 2017. [viewed 10 May 2018]. Available from: <http://www.bilan.ch/economie/initiative-monnaie-pleine-promet-un-nouveau-monde>

### **3 Adoption of payment methods**

#### **3.1 Research methodology**

The first hypothesis is that Swiss residents still use cash because security and privacy of electronic payments are not always guaranteed. This hypothesis is based on the primary information obtained from online articles of newspapers such as “Le Temps” and “Radio Television Suisse (RTS)”. Secondly, this paper is intended to find out how likely these new technologies are to replace cash payments in the near future. The best approach to confirm or reject these hypotheses is to collect and analyze primary data directly from Swiss residents. In order to do that, an online survey was conducted in the French speaking part of Western Switzerland, mostly in Geneva but also in other cantons, and neighboring France.

The first step was to prepare the appropriate questions, especially multiple-choice questions. The first set of questions capture demographics dimensions (gender, age, education, place of residence, and branch of work) to determine the structure of the sample. Then, there are questions regarding the advantages and disadvantages of cashless payment methods to determine people’s perception of these means of payment. There is also a set of three questions regarding the awareness and use of mobile payment applications to identify the level of adoption of these digital payment methods. Then, there is a set of four questions regarding the limitations on cash transactions to identify the level of knowledge, and the opinions regarding cash payment restrictions in Switzerland. Finally, there are three other questions regarding the disappearance of cash and the amount that someone usually carries with him and uses to pay to have an idea on the perception and use of cash.

The linear regression model was applied to analyze the survey data. The online survey was constituted of multiple choice questions. Linear regression models are suitable when the key responses can be transform into quantitative measurement variables. For that reason, the responses that take two possible values such as yes/no, they can be transform by yes equal to one and no equal to zero. In fact, regression models are used to develop a better understanding of the relationship between a dependent variable and a set of independent or explanatory variables. Therefore, this method allowed to determine how the use of a payment method is affected by a number of factors, often referred to as explanatory variables. For instance, the first set of questions served to determine if there are the demographic variables that impact the use of different means of payment. The questions regarding the advantages and disadvantages of cashless payment methods served to determine if there are perception variables that affect the different means of payment.

In linear regressions, the main indicators to interpret the results are the size of the coefficient, coefficient sign and p-value. The coefficient of each independent variable gives the size of the effect that is having on the dependent variable, so it tells you how much the dependent variable is expected to increase or decrease when that independent variable changes by one. Moreover, the coefficient sign allowed to determine if the explanatory variables are positively or negatively related with a mean of payment. The p-value allowed to identify if there was a statistically significant relationship between the explanatory variables and the use of a mean of payment. For instance, how much the use of a mean of payment is impacted by one or more variables such as the gender, age, and education. The equation appeared as follows:

$$Y_i = \alpha + \underbrace{\beta_1 X_1 + \dots + \beta_i X_i}_{\text{Demographic}} + \underbrace{\gamma_1 Z_1 + \dots + \gamma_i Z_i}_{\text{Advantages}} + \underbrace{\pi_1 V_1 + \dots + \pi_i V_i}_{\text{Disadvantages}} + \underbrace{\mu_1 A_1 + \dots + \mu_i A_i}_{\text{Others}} + \epsilon$$

Where Y is the dependent variable that represented the use of means of payment: the cash, the debit card, the credit card, the e-banking, PayPal, and the mobile payment application that we are trying to predict. Xi will represents the independent variables such as gender, age, education, and others that we are using to predict it. And  $\beta_i$  are the coefficients that describe the size of the effect the independent variables are having on the dependent variable Y. In practice, how gender impact the use of the debit card for example, the following equation is as follows:

$$\text{Use of debit card} = \begin{cases} 5 \\ 4 \\ 3 \\ 2 \\ 1 \end{cases} \quad \left( \begin{array}{l} \text{gender: Male} = 1 \\ \text{Female} = 0 \end{array} \right)$$

The range of numbers correspond the level of frequency of use of debit card, where, 5 = always, 4 = often, 3 = sometimes, 2 = rarely, 1 = never. And the gender is binary 0 and 1. The linear regressions had been estimated using Stata, statistical software for data analysis. In order to interpret regression analysis results, the p-value and the coefficient were noted. Therefore, the p-value identifies the statistical significance of the variables and the coefficient sign enables a positive or negative effect. These results allowed a more in-depth analysis and to draw the conclusions described below. In order to have better visibility of the results, the table 1 below shows the coefficients and the significance level. But, we would like to first explain the responses obtained of the survey for the data analysis.

### **3.2 Data and data sources**

The online survey was conducted to obtain information on payment behavior and means used. There were 380 people, 52% of men and 48% of women, who answered the survey. The participants were between 18 and more than 66 years old. Clearly, the majority of people surveyed are young because, younger people are more present on new technologies, and this survey was conducted online. The participants surveyed are very divers in terms of education level. The participants are from the French speaking part of western Switzerland (Geneva, Vaud, Fribourg, Neuchâtel, Jura, and Valais) that represent exactly 82%, from which, 68% are from Geneva. There are 16% participants from neighboring France and the remaining 2 % of the people surveyed come from Zurich, Bern, and Zug. The result of the survey can be found in appendix 2.

Then, the set of questions regarding the mobile payment application allowed to determine how successfully they are implemented and for what type of transactions they are used. Also, what are the main mobile payment applications that have greater chance to continue in the market and what are those that will not last. The awareness of mobile payment applications represents 64% of people surveyed. As a result, TWINT and Apple Pay are the first major players in Switzerland to explore mobile contactless transactions. Apple is restricted to iPhones, which account for about half of all smartphones in Switzerland and it is also available for this service abroad. However, Apple Pay and TWINT do not really compete against each other but rather against traditional methods of payment such as cash and the use of the credit and the debit cards. These results are shown on pages 49 to 50.

The results from the set of questions relating to restriction for cash payment transactions, allowed to see how well informed Swiss residents are and if they are in favor or not of these limitations. At first glance, more than the half of people surveyed do not know much about limitations and think that the limit is much stricter than it really is. Moreover, most of the population think that limitations should be capped and that it helps fight tax evasion, money laundering or illegal transactions. The majority of Swiss residents that answered the survey are in favor of limiting cash payment to combat illegal activities. Now, with this data it might be possible to find out if there is an explanation between the people's payment habits and their position in terms of limitations. These answers described can be found on pages 51 to 52.

According to the results for the question on frequency of use of different means of payment, we observed that cash and debit card are used most, credit card and e-banking are used less, and PayPal and mobile payment applications are used even less. Indeed, digital means of payments also plays an important role in terms of payments. That is why, it will

be interesting to see what the positive and negative incentives are as shown in the answers to the questions concerning arguments in favor or against cashless payment systems. In general, the main arguments in favor are practicality, security because there is no need to carry cash, and the easy tracking of spending. The main counter arguments are security, confidentiality, and costs. But, with further analysis, we will try to find out if there are specific arguments that impact different means of payment. These results can be found on page 53.

With the last set of questions, we will be able to see if any other factor such as the disappearance of cash and the amount that people tend to carry in general have an impact on their choices to adopt cashless payment methods or not. At first glance, the use of cash is far from disappearing. According to the results, on the one hand, 40% of people think that cash will never disappear. On the other hand, 60% think that is going to disappear but for the majority that it will happen in a more distant future. Regarding the amount of cash that people usually have, there is only 4% that carry nothing or almost nothing with them. This indicates that almost everyone carries some cash. These results are illustrated on page 54.

In fact, the results show that we will use cash less and less, and that even small amounts will be paid by card and mobile applications. For large amounts, payments will be made through bank transfer due to the fact that the large denomination banknote will likely be prohibited in the fight against illegal practices. Consequently, electronic payments become more important. To evaluate the difference of Swiss mentality and how cash and digital payment methods are perceived, we will distinguish generations and adapt it to the age range suggested on the survey as follows:

<b>Generations</b>	<b>The age range of generations</b>	<b>The age range of the survey</b>
Baby boomers (1945 – 1960)	between 58 and 73	more than 56
Generation X (1961 – 1980)	between 38 and 57	Between 36 and 55
Generation Y (1981 – 1995)	between 23 and 37	Between 26 and 35
Generation Z (Born after 1995)	More than 23	Between 18 and 25

Baby boomer, this generation is known as “Early adapters”, it is a generation born after the second World War. This generation did not grow up with cell phones or touchscreens but, it was the first to adopt the new products offered at that time of the beginning of technology. Today, the majority is not very comfortable due to rapid evolution and does not know how to use all the features that the new technology offers.

Generation X: it is known as “Digital immigrants”, it is the generation at the beginning of technology. At that time, the main users of credit and/or debit were people with a university degree or individuals with high incomes. There was a certain impact between the use of the card and the level of education or social level. Even though this generation takes into account people aged between 38 and 57, we will consider the age range that is 2 years younger from 36 to 45 and from 46 to 55 years old. Regarding this generation, a part of this population believed that computers were tools for engineers and very smart people. Today, this generation X become more and more accustomed to the technology.

Generation Y: it is known as “Digital Native”, it is the generation born in the digital age. Indeed, this generation grew up during the expansion of the internet and computers. That is why, this generation is much more at ease with new technologies and this has had an important effect with regard to the use of digital payment methods.

Generation Z: it is known as “Dependent on IT”, it is a generation highly connected. In fact, this generation has grown with the advance of the technology and social medias. It is very much connected with social medias, and its use is sometimes even addictive. In addition, people of this generation are great users of online payment, debit and/or debit card, mobile phone, and others. It is a generation looking for immediacy as it does not like waiting. Hence, the success of technological growth and other means of payment.

As mentioned before, the regression results are stated in the following table. The general purpose of regression is to analyze relationships among variables. The basics of reading a regression output, is to find the key information: “sign” and “significance”. The sign indicates whether the impact of the independent variables is positive or negative on the dependent variables. A positive effect suggest that the variables tend to move in the same direction. If one variable goes up in value, so does the other. If one variable goes down in value, so does the other. A negative effect implies the opposite. If one variable goes up, then the other tends to go down. Positive effects are indicated by positive numbers next to the estimated parameters. Negative effects will be indicated by a negative sing in front of the estimated parameter.

Significance tells us whether the relationship indicated by the parameters have an impact on the dependent variable. If a variable in a regression equation is statistically insignificant, it is generally not appropriate to interpret the estimated parameter as it is not statistically different from zero. Interpreting significance can be less straightforward than interpreting signs. For that reason, there are symbols attached to the parameters to indicate the variable’s level of significance. The symbol used are a star or asterisk to indicate levels of significance on the table.

Typically, if a statistically significant estimate of the p-value is lower than 0.01, it will be indicated by three 3 stars, if the p-value is lower than 0.05, it will be indicated by two stars and lastly, if the p-value is lower than 0.1, it will be indicated by one star. The more stars there are, the more significant it is. Therefore, to interpret the regression results you must read the signs and the significance levels. These results are stated in the following table with the negative or positive coefficient, and the p-value to identify the determinants that influence a payment method.

The variables stated in the first line of the table are first the demographic for each type of payment. The demographic variables taken into account for the regression models were gender, age and education because it was easier to quantify so that it can have an impact on means of payment. The answer for gender were binary, for age and education in a hierarchical way. The place of residence was no relevant to take into account for regression analysis because the majority of people were from Geneva. The branch of work of the respondents was not included in the analysis.

Then, the disadvantages and disadvantages variables are stated in the second line for each type of payment. They are take into consideration in addition to the demographic ones to identify how and which perception's variables impact the use of different type of payment. Finally, a new variable such as awareness of mobile payment applications was taken into account with only demographic variables and with perception variables in addition to the demographic ones for each mean of payments. The variables concerning the limitations did not impact any mean of payments, so they were not included in the regression results table below.

**Table 1: Regression results**

	Frequency	Gender	Age	Education	Convenience	Security	Easy tracking	Discounts	Security	Confidentiality	Costs	Merchant acceptance	poor internet connection	Lack of technology knowhow	Awareness of mobile apps	Disappearance of cash	Cash on hand
Cash	-0.056	-0.032	-0.034														
	-0.024	-0.023	-0.018	-0.486***	-0.312***	-0.154	0.214	-0.083	0.053	0.215**	-0.033	0.295**	0.147				
	-0.047	-0.053	-0.027											-0.246**			
	-0.022	-0.036	-0.014	-0.471***	-0.308***	-0.138	0.229	-0.078	0.042	0.212**	-0.014	0.302**	0.113	-0.173*			
	-0.052	-0.039	-0.033												-0.101**		
	-0.022	-0.030	-0.017	-0.480***	-0.284**	-0.153	0.228	-0.081	0.042	0.198**	-0.031	0.294**	0.152		-0.072*		
Debit card	-0.090	-0.203***	-0.029														0.495***
	-0.065	-0.183***	-0.019	-0.339***	-0.179**	-0.175**	0.160	-0.029	0.019	0.160*	0.006	0.303**	0.065				0.450***
	-0.131	-0.276***	0.021														
	-0.189	-0.284***	0.014	0.307**	0.432***	0.168	-0.012	0.201	-0.195	-0.110	0.143	-0.342**	-0.277				
	-0.143	-0.247***	0.012											0.339**			
	-0.192	-0.267***	0.009	0.286**	0.427***	0.146	-0.032	0.194	-0.180	-0.107	0.117	-0.352**	-0.230	0.236*			
Credit card	-0.131	-0.276***	0.021												0.006		
	-0.189	-0.288***	0.014	0.309**	0.447***	0.168	-0.004	0.202	-0.201	-0.118	0.144	-0.343**	-0.274		-0.037		
	-0.119	-0.215***	0.020														-0.178**
	-0.179	-0.245***	0.014	0.270*	0.399**	0.173	0.001	0.188	-0.186	-0.096	0.133	-0.344**	-0.256				-0.112*
	0.120	0.087*	0.185***														
	0.096	0.102**	0.173***	0.114	0.055	-0.051	0.276	-0.129	-0.081	-0.106	0.161	0.154	-0.191				
Credit card	0.106	0.120**	0.175***											0.379**			
	0.092	0.127**	0.166***	0.086	0.048	-0.080	0.247	-0.139	-0.060	-0.101	0.126	0.141	-0.126	0.330**			
	0.115	0.097**	0.183***												0.128**		
	0.094	0.112**	0.172***	0.106	0.011	-0.052	0.253	-0.132	-0.628	-0.080	0.158	0.156	-0.199		0.114**		
	0.122	0.097**	0.185***														-0.029
	0.097	0.107**	0.173***	0.110	0.051	-0.050	0.277	-0.130	-0.080	-0.104	0.160	0.154	-0.189				-0.011



	Frequency	Gender	Age	Education	Convenience	Security	Easy tracking	Discounts	Security	Confidentiality	Costs	Merchant acceptance	poor internet connection	Lack of technology knowhow	Awareness of mobile apps	Disappearance of cash	Cash on hand
E-banking	0.182	-0.011	0.124**														
	0.118	-0.009	0.114**	0.125	0.331**	0.110	0.520**	-0.003	-0.263*	-0.244*	0.112	-0.176	-0.187				
	0.163	0.035	0.111**											0.532***			
	0.113	0.023	0.105**	0.087	0.322**	0.070	0.482**	-0.017	-0.236*	-0.238*	0.063	-0.194	-0.099	0.448**			
	0.179	-0.005	0.124**												0.199		
	0.118	-0.006	0.114**	0.123	0.319**	0.109	0.514**	-0.004	-0.258*	-0.237	0.111	-0.175	-0.189		0.032		
	0.183	-0.008	0.124**													-0.008	
PayPal	0.115	-0.022	0.114**	0.137	0.342**	0.108	0.516**	0.000	-0.266*	-0.248*	0.115	-0.175	-0.193			0.036	
	0.115	0.022	0.072*														
	0.106	0.033	0.063*	0.063	0.222**	0.007	-0.074	-0.031	-0.142	-0.073	0.226*	0.109	0.062				
	0.102	0.056	0.062*											0.389***			
	0.102	0.059	0.056	0.033	0.215**	-0.024	-0.105	-0.042	-0.120	-0.068	0.188	0.095	0.132	0.352***			
	0.114	0.024	0.072*												0.028		
	0.106	0.033	0.063*	0.063	0.222**	0.007	-0.074	-0.031	-0.142	-0.073	0.266*	0.109	0.062		-0.000		
Mobile apps	0.115	0.020	0.072*													0.007	
	0.102	0.018	0.063*	0.077	0.235**	0.005	-0.079	-0.026	-0.145	-0.078	0.230*	0.110	0.055			0.042	
	0.068	-0.084**	-0.000														
	0.045	-0.056	-0.024	0.349***	0.046	0.246**	0.267*	-0.088	-0.118	-0.124	0.020	0.265**	-0.064				
	0.048	-0.035	-0.014											0.562***			
	0.040	-0.020	-0.034	0.308**	0.036	0.203**	0.225	-0.102	-0.089	-0.118	-0.031	0.246*	0.030	0.483***			
	0.063	-0.073**	-0.002												0.147***		
	0.043	-0.045	-0.025	0.340***	-0.002	0.244**	0.242	-0.091	-0.098	-0.095	0.016	0.268**	-0.072		0.128**		
	0.077	-0.040	-0.001													-0.126**	
	0.055	-0.020	-0.024	0.317**	0.017	0.251**	0.279*	-0.100	-0.111	-0.112	0.012	0.264**	-0.046			-0.099**	

- The values with plus or minus sign indicate a positive or negative effect on means of payment
- The stars represent the level of significance: P < 0.01\*\*\*, P < 0.05\*\*, and P < 0.1\*

### **3.3 Analysis of the regression results**

#### **3.3.1 Use of cash**

There is no relation between the use of cash and the demographic variables. In other words, the use of cash is not impacted by any of the demographic variables i.e. the gender, the age, or the education of the respondents. Additionally, when the advantages and disadvantages variables are added to the demographic ones, there is still no impact by any demographic variables.

There are two variables regarding the advantages for non-cash payments that are relatively important and negatively affected for all the regressions that have been estimated for the use of cash i.e. the convenience and security. It seems quite normal because those variables come from the question of the survey “Why would you adopt a cashless payment system?”. Therefore, the use of cash would likely decrease because of convenience and security of cashless payment systems.

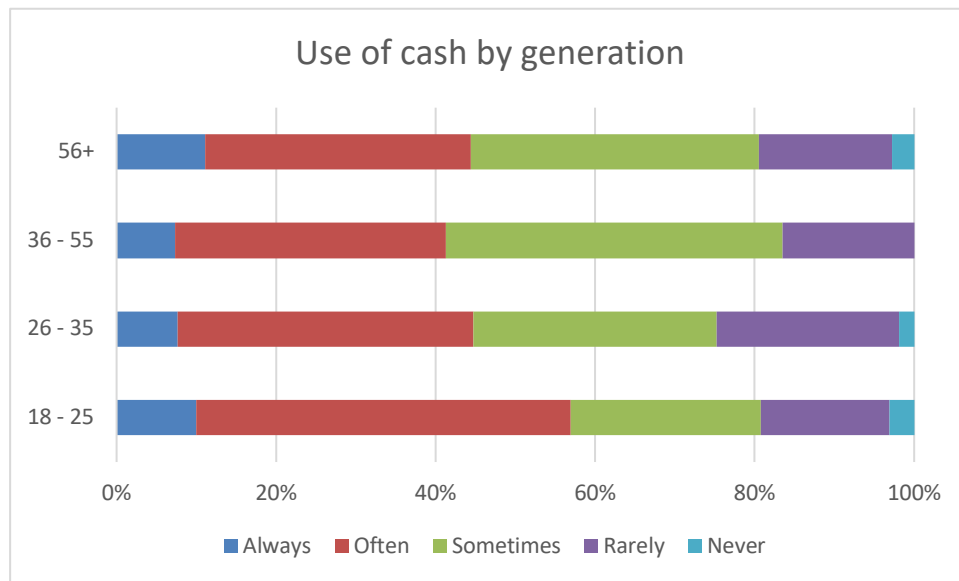
Moreover, there are two variables negatively impacted and relatively significant regarding the disadvantages for non-cash payments i.e. the costs and the poor internet connection. Those variables come from the question of the survey “What are your biggest concerns about non-cash payments?”. This indicates that the main reasons why people tend to use more cash are costs and poor internet connection of cashless payment methods.

Regarding the linear regression run with the awareness of mobile payment applications variable, it is negatively affected and significant. When the regression includes the advantage and drawback variables, it still is negatively affected but much less significant. If more variables are taken into consideration, the significance level decreases. Therefore, if more people were aware of those mobile payment applications, there are chances that they would adopt them and that the use of cash would decrease accordingly.

Then, the disappearance of cash variable impacts and the use of cash negatively. This result indicates that the use of cash decreases, the more people believe that cash will not last. Therefore, people who believe that cash will not disappear or will disappear in a more distant future use more cash than people who believe that cash will disappear soon.

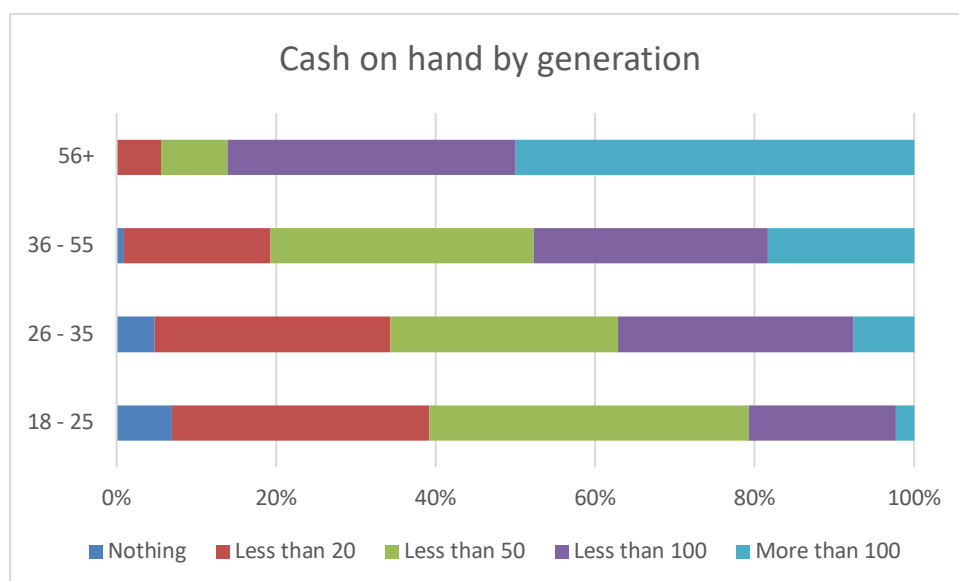
When the analysis controls for the amount of cash people usually carry, the age variable becomes highly significant with a negative coefficient. This indicates that older people use less cash than younger people. However, the age variable does not really impact the use of cash. The following graph show how age affects slightly the use of cash.

**Figure 1: Use of cash by generation**



The perceived advantages and disadvantages of cashless payment methods remain significant for all the regression models. However, when the use of cash is estimated with the “cash on hand” variable in addition to the perception variables, there is a new relevant advantage that has not appeared in the previous linear regressions which is the easy tracking of spending. Therefore, this shows that, the more tracking of spending progresses, the more the use of cash decreases. Finally, the age become very important because the older generations tend to use less cash but carry higher amounts of cash compared to younger generations. The following graph shows this interpretation.

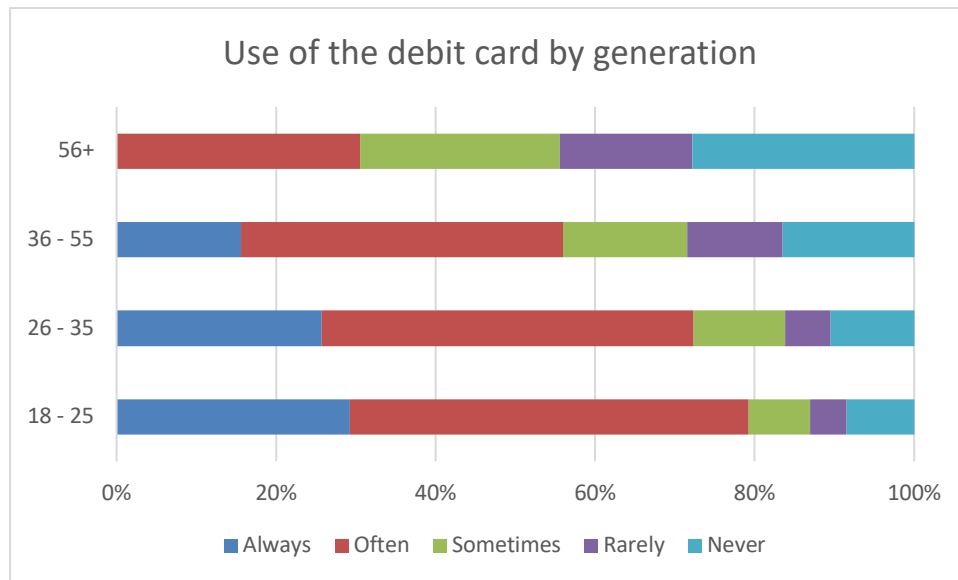
**Figure 2: Amount of cash carried by generation**



### 3.3.2 Use of debit card

Age is definitely significant and affected negatively in all the regressions that have been estimated in the use of the debit card. Those results indicate that the use of the debit card decreases as age increase. In other words, older people tend to use the debit card less often than younger people. The following graph shows that relationship.

**Figure 3: Use of the debit card by generation**



The main reasons for the use of the debit card are convenience and the safety of not carrying cash. Both are the main reasons to adopt that electronic payment as seen before in the analysis of the use of cash. This shows that the debit card does reduce the use of cash payments. However, the main concern is poor internet connection with the use of the debit card which is related to machines and internet connection failures and problems encountered with electronic and online payments.

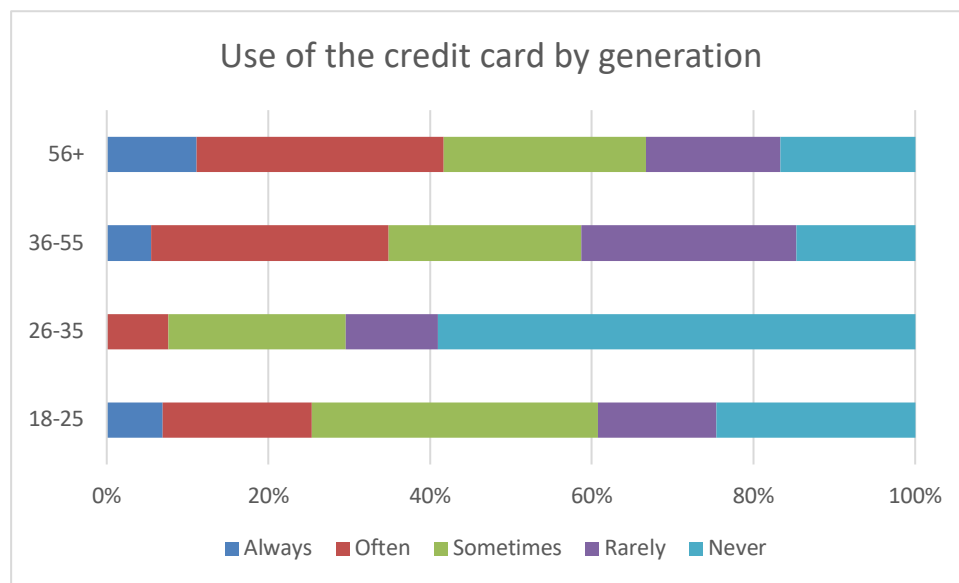
Regarding the awareness of mobile payment applications, the use of the debit card is positively impacted, and it is significant. This indicates that people who use debit card are aware of the possibility of mobile payments. This is consistent with the use of the debit card because mobile payment applications usually need a bank account or because banks offer mobile banking applications.

Finally, the idea that cash might disappear shown in the disappearance of cash variable does not impact the use of the debit card. The amount of cash that people tend to carry is impacted negatively with regards the use of the debit card. In fact, this shows that people who generally carry smaller amounts of cash, more often pay with a debit card.

### 3.3.3 Use of credit card

Regarding the demographic variables that influence the use of the credit card, the age and the level of education affect the use of the credit card positively. After all the linear regressions have been estimated, the age is significant, and education is relatively significant. Those results show that the higher the age and education, the higher is the use of the credit card. In order to illustrate the influence of age, the following graph shows how the use of the credit card increases as age increases.

**Figure 4: Use of the credit card by generation**



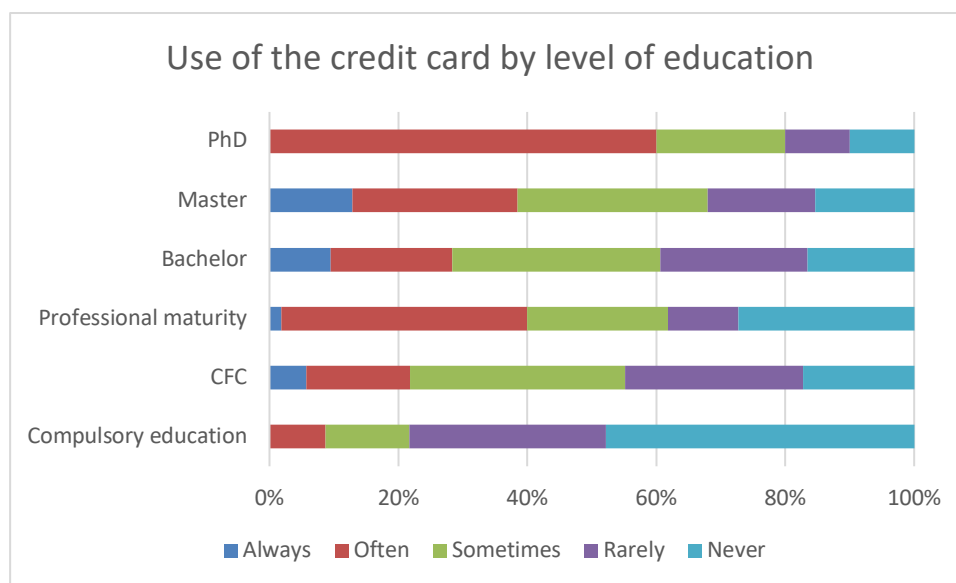
However, the results reveal that the use of the credit card does not increase progressively. In fact, the use the credit card is greater in the age range between 18 to 25. As a consequence, the 18 to 25 years old are most at risk of incurring debt in Switzerland. This can be explained by an important matter, the number of departures of the parental home and the frequent moves usually happen at this age and are often accompanied by debt.

According to Mrs. Emery-Torracinta, Counsellor of Geneva's State in charge of the Education, Culture and Sports department, *"one young person out of four is in debt and more than 80% of people who have unsustainable debt, have ingot into debts before the ages of 25"*<sup>3</sup>. Additionally, young people who have a lower level of education are more concerned with the debt than others.

<sup>3</sup> ATS 2017. A Genève, le surendettement des jeunes est jugé « alarmant ». Le Temps [online]. 11 April 2017. [viewed 10 May 2018]. Available from: <https://www.letemps.ch/suisse/geneve-surendettement-jeunes-juge-alarmant>

But, other factors such as education level, the place of residence or the lifestyle can play a role in the risk of unsustainable debt as mentioned in the article from the TDG<sup>4</sup>. The level of education plays an important role in the tendency to consume and to use credit cards more. As noticed before with the linear regression model, the education affects positively the use of the credit cards. In order to have a better illustration of this, the following graph shows the frequency of use according to the level of education.

**Figure 5: Use of the credit card by level of education**



According to the graph above, the higher the level of education, the more frequent the use of the credit card. However, the graph reveals that the regular use is higher in the professional maturity level than in the bachelor's degree. This increase could be in part related to the age as explained before. However, there is only about 10 points difference between both levels of education. Therefore, the use of the credit card increases progressively with the level of education, and the use of the credit card is influenced more by the level of education than the age.

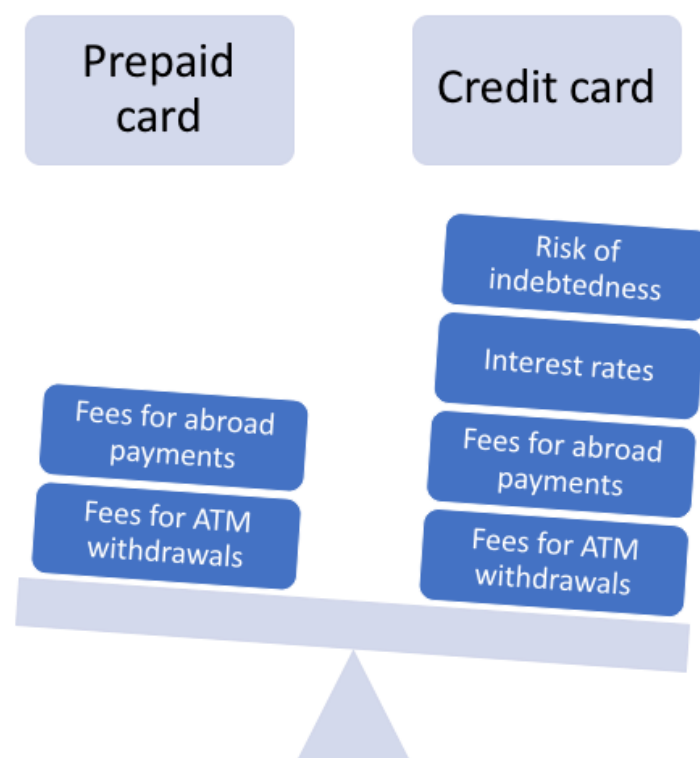
The awareness of mobile payment application variable impacts the use of the credit card positively. It is the same for the debit cards. So, the awareness of mobile payment variable impacts the use of both debit and credit cards. As mentioned before, these mobile payment applications need in general a bank account. Regarding the disappearance of cash variable, it is definitely explained with the use of the credit card. This indicates that people who use the credit card more think that physical money will not last.

<sup>4</sup>L'âge et le mode de vie jouent un rôle en matière d'endettement. TDG [online]. 08.01.2013. [viewed 7 May 2018] Available from: <https://www.tdg.ch/economie/ge-mode-vie-jouent-role-matiere-dendettement/story/13210935>

In comparison with the debit card, the credit card is more used by older generations while the debit card is used more by younger generations. Both credit and debit are clearly different; the debit card is directly linked to people's current account, whereas the credit card is in fact borrowing money. Moreover, the use of the credit card is not driven by any advantages or disadvantages variables. As for the debit card, convenience and security are the main advantages and poor internet connection is the main concern.

Why do not any variables influence the use of the credit card? There are no specific variables that influences the use of the credit card. People might need to borrow money and they must pay it back with interest which might be a deterrent. The conditions for the use of a credit card varies depending on the financial institution. As a consequence, the main benefit of the credit card payment is that it allows people to spend money in advance and the main concern is that the money borrowed could be paid back with interests.

Moreover, there is a cultural aspect to the way people use credit card. Perhaps Swiss residents borrow money only for unhabitual purchases because of the interests. It is important to pay attention to all the costs that a credit card holder should expect, there are the basic annual subscription fees, abroad payments fees, withdrawals fees, and payment fees. Plus, they might incur interests on late payment and callback fees. In order to avoid this, there are cards with no credit function such as the prepaid cards that allow purchases abroad or on the internet.



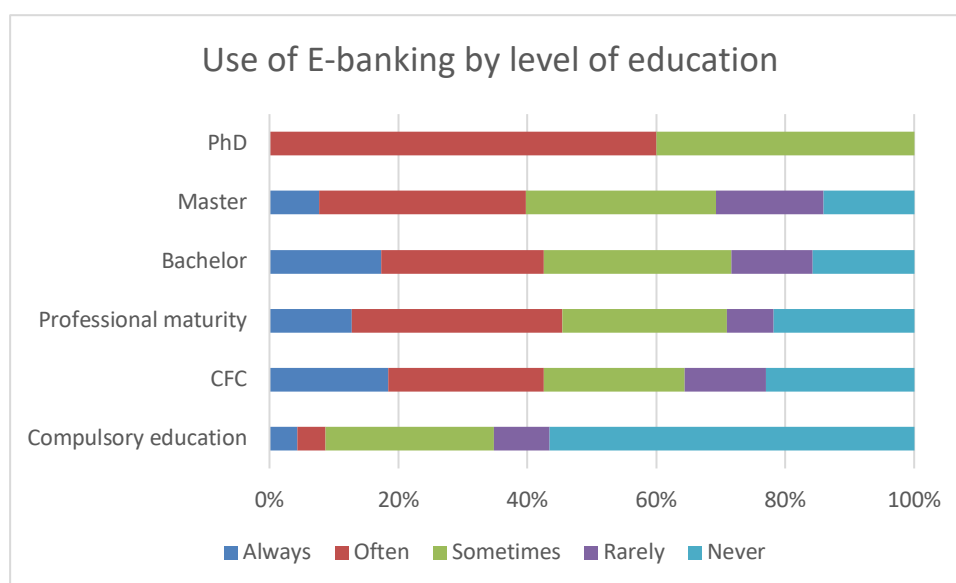
Some financial institutions offer credit cards for “free” meaning that there is no need to pay for an annual subscription. But it is never totally free because of all the fees that a credit card incurs as mentioned above. Therefore, the use of the credit card has to be limited and used carefully because it entails a risk of unsustainable debt, so a prepaid card is a good alternative to the credit card, to avoid debts.

Finally, it is important to mention a point of discrepancy in the analysis of the use of the credit card, and to highlight that the prepaid card is often mistaken for a credit card. The prepaid card allows payments abroad and online with money paid for in advance like a credit card. This can be confusing because both types of cards may have a card network logo like Visa or MasterCard on them. The prepaid card although different from a debit and credit card, is considered by users as to be so similar to a credit card that it was not specify the distinction in the survey.

### 3.3.4 Use of e-banking

Education level impacts the use of e-banking and it is significant in all the regressions that have been estimated. According to the following graph, the higher the level of education, the higher the use of e-banking is. More specifically, the use of e-banking increases slightly and progressively between the different education levels, except for compulsory education. Moreover, it can be observed that more than the half of people among the compulsory level of education have never used any e-banking services. The following graph shows the observations mentioned above.

**Figure 6: Use of E-banking by level of education**





People perceive the main advantages in using e-banking services are security and cost effectiveness. These benefits are positively impacted which indicates that the more complex the security is, the higher the use of e-banking services is. Indeed, the e-banking services have, in general, high security levels because they require multiple authentication including confirmation by a security code that is sent by email or mobile phone, plus sometimes they ask for personal information to be able to access the service. Therefore, security for e-banking is reliable according to the study.

An e-banking service enable banks to lower costs compared to traditional banking services, it reduces banking tills and require fewer employees. As a result, e-banking clearly reduces costs for banks and financial institutions. Another fact is that online banking enables customers of a bank or another financial institution to benefit from a range of financial services such as national and international transactions. Banks include the costs of online services in form of a package that includes checking account, credit accounts, and other financial services. However, there are some reduction of cost perceived by online banking users. The reductions for these customers are because there are no invoices fees for BVR, used by people who pay in cash. Many institutions have established online invoices payment, especially through e-banking, the costs of handling this information by back office employees does not exist anymore. The costs for paper, printing, postal charges and the salaries of back office employees having gone down, users expect to have some of the benefit.

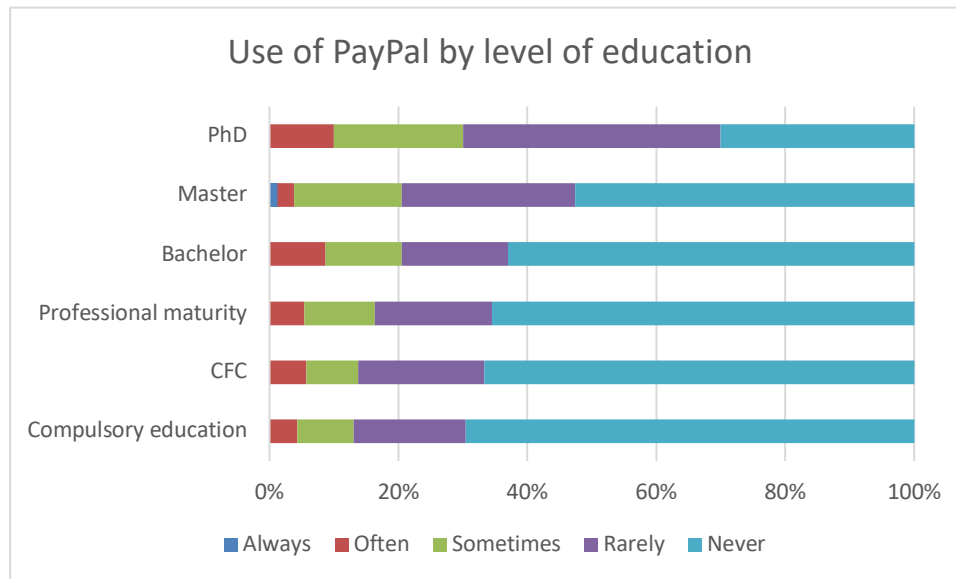
The main concerns for online banking systems are confidentiality and costs which are negatively affected and low significant. This indicates that if those drawbacks go down, the use of e-banking increases. But there is no confidentiality in this type of electronic transaction. In fact, when making a payment through e-banking, it is necessary to introduce not only the bank account details but also the name and address of the recipient. Therefore, these transactions are completely traceable and transparent. People think that e-banking is cheaper but there are costs for the use of e-banking services. As mentioned before, the use of e-banking is higher for unusual transactions in Switzerland and abroad. Cost and privacy issues are seen as disadvantages but not that significant and the costs incurred are not that important for customers, so e-banking is perceived as an economical and secure service.

Regarding the awareness of mobile payment applications, it is impacted positively and very significant with the use of e-banking. This means that higher the use of mobile payment application, the higher the use of e-banking. This is because many banks and financial institutions offer mobile banking services that allows their customers to make payment through their own mobile banking applications.

### 3.3.5 Use of PayPal

PayPal is an online payment system available in more than 200 countries around the world that serves to shop online and send or receive money. Regarding the use of PayPal, education is positively impacted and slightly significant in all the regression models that have been estimated for the use of PayPal. This implies that, the higher the education level, the higher the use of PayPal. The following graph show the interpretation mentioned above.

**Figure 7: Use of PayPal by level of education**



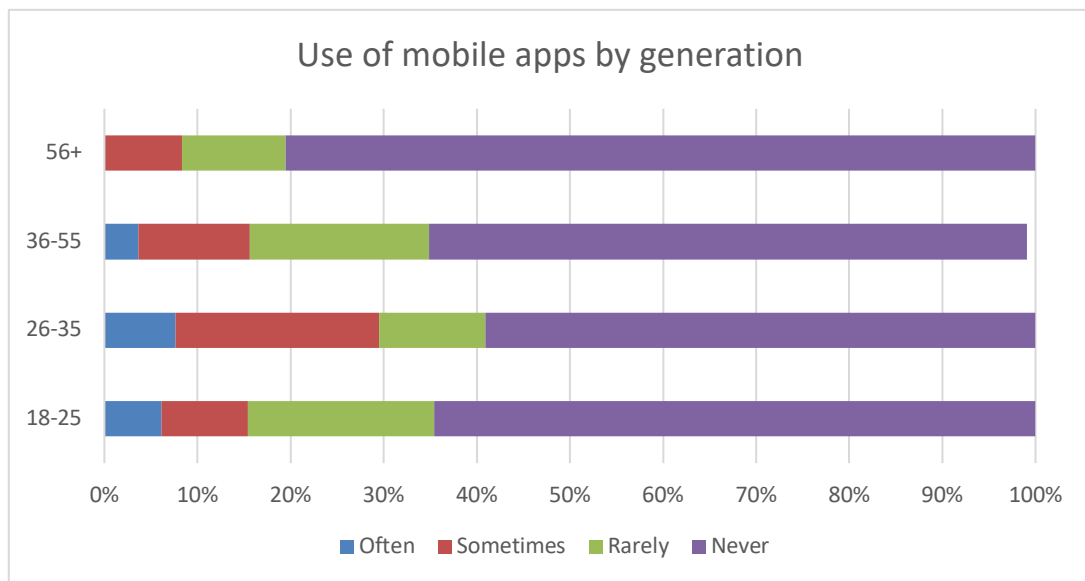
The only advantage for PayPal is the security which completely explain its use. In fact, as it is no longer necessary to release anymore the credit card details, PayPal can be used as an intermediary between the bank and the supplier of a good or service. This allows the consumer reducing the number of the retailers who have their confidential data. Moreover, in case of non-delivery of the good or if the good does not correspond to the description of the product, PayPal's guarantee reimbursement can be claimed for the loss incurred. Therefore, it acts as an intermediary and provides guarantee of the goods, it ensures protection to online consumers.

The only drawback is shops acceptance which is positively impacted in all the regression models that have been estimated. This means that if more sellers accepted PayPal, its use would increase. Unfortunately, even though PayPal is available in many online retailers around the world, it is not accepted everywhere yet, therefore it has potential to increase its market share. Regarding the use of PayPal and the awareness of mobile payment applications, it has a positive and significant effect. This indicates that people using PayPal are aware of mobile payment applications. But, this is also due to the fact that PayPal is also accessible through its own mobile application.

### 3.3.6 Use of mobile payment application

When the linear regression is run only with the demographic variables, only the age is significant and has a negative impact. This means that the use of mobile payment applications tends to decrease with age. However, when the regression is done taking into account the advantages and disadvantages variables, there are no significant demographic variables. It appears that if arguments other than age enter into account, they could have more impact than age. The following graph show the influence of age in the use of mobile payment applications.

**Figure 8: Use of mobile applications by generation**



For the baby boomer generation, it is more difficult to adapt to new technologies even though they are early adopters. People from the generation X have adopted technology gradually and are a bit conservative which make adoption less easy. Whereas the Y generation are people born at the time of the appearance of the internet which explains the highest adoption. Generation Z is dependent on IT and although they are most connected, they have a lower adoption of mobile payments applications than generation Y. Why does this generation tend to use the mobile payment applications less than generation Y?

Some hypothesis can be made from the question above. Part of the generation Z are students who have less needs and means to use any means of payment. And even though, this generation is the most technologically connected, it does not mean that they use every new digital application. Perhaps, this is because the youngest generation, generation Z uses of the smartphone is more like a hobby in contrast with generation Y that thinks the smartphone is not only an entertainment but also a tool.

These technologies are very convenient, they facilitate following spending, and the discounts are seen as positive. However, the most significant perceived advantage is convenience. The mobile phone has become an essential tool in people's life and mobile payment applications offer not only to pay for goods on the internet and in shops but also, to transfer and to receive money. Moreover, some applications allow customers to register loyalty cards to gain benefits from specific retailers. For instance, TWINT application enables paying in many physical shops and register loyalty cards. So, with that type of application a person has the possibility to pay everywhere, to transfer and receive money, keep the advantage of loyalty cards on one unique application. That is why, having the wallet app on a mobile phone is very convenient.

The second benefit for the user of these applications is the easy tracking of spending. In fact, it is easy to see the transactions of what has been purchased, and to see ingoing and outgoing cash, and it is possible to transfer and receive money from a person to another. The third benefit are the discounts offered through mobile applications. Indeed, there are discounts that come from loyalty cards that are stored into the application itself. Furthermore, there are exclusive cash-back rewards with coupons given with the use of an application or from different loyalty cards. On the one hand, these rebates help save money, but on the other hand, the impact of advertising encourages consumption. Therefore, it is very practical, but it does push spending as well.

The main concern about its use, is the relatively poor internet connection, people cannot always rely on the existing infrastructure, it can be slow or there is an overload or even a temporary break down. But regardless of this, wireless network technologies have been evolving in recent years, but there are still improvements to be made in order to satisfy demand.

Regarding awareness of mobile payment applications, all the cashless payment systems are positively affected and relatively significant which indicate that the use of cashless payment systems increase as more and more people are aware of the new digital payment methods. The disappearance of cash definitely explains the use of mobile applications, so that people who believe that cash use will not last, use it more than people who believe that cash is not disappearing soon. Finally, the amount of cash that people carry is statistically significant and affected by the use of mobile payment applications, meaning that, usually, the more people carry cash, the less likely they are to use these applications, and vice-versa.

## 4 Discussion

### 4.1 Adoption of cashless payment systems in Switzerland

In order to summarize what the determinants that influence the adoption of digital payment methods in Switzerland are, the following table highlights the different variables that influence payment means so as to be able to compare them. The table contains the results of the first linear regression estimated with only demographic variables, but the coefficient sign remains the same as the other regressions as well as the level of significance.

**Table 2: Summary of the results**

Type	Demographic		Advantages				Disadvantages			
	Age	Education	Convenience	Easy tracking of spending	Security	Discounts	Confidentiality	Costs	Merchant acceptance	Poor internet connection
Cash			-0.486***		-0.312***			0.215**		0.295**
Debit	-0.203***		0.307**		0.432***					-0.342**
Credit	0.087*	0.185***								
E-banking		0.124**			0.331**	0.520**	-0.263*	-0.244*		
PayPal		0.072*			0.222**				0.226*	
Mobile payment applications	-0.084**		0.349***	0.246**		0.267*				0.265**

The survey results show, that demographic characteristics, such as gender, age, and level of education, does not impact the use of cash. There are some advantages that affect the use of cash. First, it serves as a stored value because it is perceived as harder to lose when is in one's hand but of course that does not take into account inflation or theft. Then, there is the psychological need for tangibility which brings a sense of security even though it has the same value as the numbers showed in an electronic account. Finally, cash is accepted in all commerce, it is available to everyone as there are very few limitations for use, whereas, there is a legal minimum age to open a bank account for example.

But cash use could decrease if convenient and safe cashless payment improve. As the main advantages of the use of the debit card are convenience and security, it could substitute cash. Moreover, the use of the debit card represents more than 50% of transactions and if this situation continues to evolve, then we can imagine that cash might disappear. However, the main worry preventing cashless payment from replacing cash is poor internet connection and costs.

From society's point of view, many illegal practices are more likely to happen with cash. Indeed, as it is difficult to keep track of transactions, so it might favor criminality, corruption, and tax evasion. For instance, it enables ML/TF because it is easier to conceal the source of money acquired illegally and reinvest it in legal activities. Therefore, the main issue is the anonymity and the ease of transaction without any trace. Without cash, these kinds of activities would face bigger entry barriers.

The use of the debit card is influenced by age, as observed during the analysis, younger generations use it more than older generations. In parallel, its positive effect with education is in part related to age as well because the use of the credit increases when education level increases. This might be because in general the higher the level of education, the higher the salary which makes them less worried by debts than people who need to have more control on their spending. Finally, there is no significant advantage or drawback that influence its use.

Regarding the use of e-banking, it is related to the levels of education. As observed during the analysis, the higher the education, the higher the use of e-banking. Indeed, the use increases slightly between each degree level with the exception of compulsory education. The main advantage is security because of multiple authentication to access e-banking and the other benefit is discount because there is no need to send invoices by post which today many entities charge costs for. However, the main drawbacks are confidentiality and costs. Confidentiality because in order to make a transaction, the name of the recipient is required in addition to his bank account details. Then, costs because even though there is not a fixed cost for every transaction, there is a cost for the use the service.

As far as the use PayPal is concerned, the higher the level of education, the higher the use of PayPal. As PayPal is mainly used for online purchases, but also allows transfer from one PayPal's user to another. The main benefit is security because it ensures protection compared to traditional debit and credit cards (Visa, MasterCard, and other) for online purchases, PayPal covers the cost of returning goods if a reimbursement is needed for instance. As a result, more people are educated, more they can see the advantage of this protection, and that it mitigates the risk of fraud.

Regarding the use of mobile payments applications, this is absolutely explained by age. The younger generations use more than older generations as explained in the analysis, it is very much a generation effect with regard to digital use. In addition, age appears to influence the choice of debit and credit cards. Debit card and mobile apps are both used more by younger generations, this might imply that the mobile apps are mainly used through the debit card rather than the credit card. However, it can be observed that younger generations are more willing to use mobile payment applications but, they are not that well implemented yet because there is less than 40% of people surveyed that use it.

In terms of benefits for cashless payment systems, the security of no need to carry cash and convenience are the most relevant. Security is mainly due to its simplicity to transport and convenience is mainly due to the evolution of NFC terminals. In fact, this allows two nearby devices to exchange information very quickly without even touching each other. But, to function, a person must hold a card or mobile phone compatible with that technology. Therefore, this NFC terminals enables a person to save time because it allows exchanging information between the consumer and the seller in a few seconds.

The drawbacks of cashless payment systems, poor internet connection and costs are the most relevant in general. The costs are related to negative interest rates. A few years ago, people got a return on their money deposited in an account, whereas today the situation is reversed i.e. people pay to deposit their money into an account. Failures encountered in ATM to withdraw or insert money and in RFID machines in POS, system deficiencies such as phishing and the heartbleed have a negative impact. Falsified websites obtain confidential information of a client by appearing to be what it is not, this is called phishing. Heartbleed is a security breach on the internet that enables to read the memory of a server to retrieve confidential data, especially password and therefore steal money.

## **4.2 Recommendations for a better implementation**

### **4.2.1 Better infrastructure**

The best way to encourage people to adopt cashless payment methods is by improving the technological infrastructure. As the main concern is the poor internet connection, it is related also to the reliability of machines. First, avoid machines breakdowns, the ATM to withdraw or inject money and the RFID machines to pay in POS. Then, the wireless networking in general, sometimes there is no internet connection or network in some places. Perhaps, giving free internet connection in all the shops such as the coffee shops, not only increase the number of customers, but it facilitates mobile payments. Finally, not only is important to have access, but also have backup solutions in case of power cuts and implement plugs in shops and in public transport could also help to adopt cashless payment methods.

### **4.2.2 Reduce costs**

Some shops require a minimum amount, usually of 10 Swiss francs to pay with a card. This is related to the costs incurred for the use of the RFID machines. For big companies, it is not a huge cost, but for smaller shops this can really have an impact on their overheads. Moreover, the costs encountered are from the fact of having a bank account, the fees related the annual fees for the use of Mastercard or Visa that allows transactions abroad, the monthly fees to the current account management, etc. The costs of mobile phone subscriptions might impact the use of cashless payments methods, especially for the mobile phone applications. Finally, the costs for small business should be lower for them, and the costs for consumers should decrease as well.



## 5. Conclusion

The Internet had allowed the digitalization of banking activities and that is why electronic payments has entered the market. Indeed, at the end of the 20<sup>th</sup> century, the European banks offered online banking systems via a computer and then via mobile phone applications. At the same time, contactless payment systems on debit and credit card were introduced. Indeed, the rapid evolution of the use of channels such as the internet and mobile phone to make purchases has prompted stakeholders for the sake of simplicity to rely on the existing means of payments (bank cards, transfers and direct debits). Therefore, the digitalization of transactions continues to growth constantly bringing new innovations and solutions. The coming years will then show what methods will remain in the long term and what will not last.

Many European countries are adopting these new means of payments and the use of cash is declining. Some people think that cash will disappear and that it is only a question of time. However, according to many articles, the Swiss residents remain very attached to cash. We can also add that the Swiss people are very discreet about money matters, they do not easily share what they earn and so we can imagine that total transparency does not fit their culture. In Switzerland, the new banknotes have been in circulation since 2016 and the remaining banknotes will be entirely released by 2019. Therefore, cash and dematerialized money can be expected to coexist for a few years more. In fact, cash feels safe because people have an instinctive feeling of reliability as it is tangible and visible.

However, the technological evolution and the new possibilities in terms of payment offered by card or mobile applications are changing people's habits. Since the existence of cards, there has been a cohabitation between cash and card payments, but we know that Scandinavian countries are much more cashless than Switzerland. Choosing to pay card or cash is in fact an eminently cultural phenomenon. Payment habits are rooted in the culture of countries and it is not an easy task to make them evolve quickly. The only exception is PayPal in the field of online purchases.

New methods of payments are used more and more and replacing physical money, especially due to the arrival of contactless and mobile applications. The debit card, PayPal, and e-banking are felt to be secure. Debit card and the mobile applications are considered convenient. e-banking and mobile applications are perceived as economical means. The mobile payment applications enable tracking spending easily. Regarding the credit card, benefit or disadvantages do not influence its use.

In conclusion, the use of cash is likely to be replaced by the debit card because convenience and security are the main reasons that deter from using cash. However, the main issue with cashless systems is the poor internet. Finally, the costs related to bank accounts and mobile phone subscriptions are likely to have an impact on how people chose to pay. But, could it be possible to live without cash? The absence of cash might be very practical and free people from the necessity of carrying cash to obtain goods and services. The fact of only depending on cashless methods of payment could be a problem if there is a technical issue with the machine or if you lose your phone and/or card.

Moreover, it could increase the level of debt because people might be tempted to purchase more as it is more difficult to control its spending with cashless payment methods. But, this decision will eventually depend on each person. That is why, it is recommended to improve the infrastructure and to reduce the costs to adopt cashless payment methods. It might not exclude the use of cash definitely, but it can decrease it considerably. Usually a technological progress has an impact on the way people do things, but the old ways remain and both things cohabit. This is what happened with books and e-books, this is what we foresee in the future.

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## Appendix 1: Means of payment survey

1. Are you? (1 answer)

- ☐ A man
- ☐ A woman

2. In which age group are you? (1 answer)

- ☐ 18-25
- ☐ 26-35
- ☐ 36-45
- ☐ 46-55
- ☐ 56-65
- ☐ More than 66

3. What is your level of education or equivalence? (1 answer)

- ☐ Compulsory education
- ☐ Federal certification of vocational training (AFP)
- ☐ Federal capacity certificate (CFC) or Diploma
- ☐ Professional maturity
- ☐ Bachelor
- ☐ Master
- ☐ PhD

4. Where do you live? (1 answer)

- ☐ Geneva
- ☐ Vaud
- ☐ Valais
- ☐ Fribourg
- ☐ Neighboring France
- ☐ Other:

5. In which field do you work? (1 answer)

- ☐ Administration / Office Management
- ☐ Banks / Economy
- ☐ Building / Construction / Civil engineering
- ☐ Catering / Hotel / Tourism
- ☐ Commercial / Sales
- ☐ Commodity trading / Trade finance / Shipping
- ☐ Crafts / Other manual professions
- ☐ Engineering / Architecture
- ☐ Entrepreneurship / Company Management
- ☐ Finance / Accounting / Controlling
- ☐ Health & Beauty / Sport



- ☐ Healthcare / Medicine / Social
- ☐ Human Resources / Staff Management
- ☐ Industry / Manufacturing / Technical
- ☐ Insurance
- ☐ IT / Telecommunications
- ☐ Law / Taxation / Advice
- ☐ Marketing / Media / PR
- ☐ Other Professions
- ☐ Pharmaceutical / Biotechnology / Chemistry
- ☐ Procurement / Logistic / Transport
- ☐ Real Estate
- ☐ Security / Defense
- ☐ Student
- ☐ Training / Education

6. Which means of payments do you use the most? (1 answer per line)

	Never	Rarely	Sometimes	Often	Always
Cash	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Debit card	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Credit card	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E-banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PayPal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobil application	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Do you know any of the below mobile payment applications? (optional)

- ☐ TWINT
- ☐ Google Wallet
- ☐ Apple Pay
- ☐ Samsung Pay

8. Do you know any another mobile payment application? If yes, please specify which one (optional)

- ☐ Short answer text

9. Have you already use a mobile application to: (optional)
- ☐ Pay your purchases
  - ☐ Reimburse someone
  - ☐ Pay your invoices
10. What is the minimum amount that you pay by card? (1 answer)
- ☐ I pay everything or almost by card
  - ☐ From 10 Swiss francs
  - ☐ From 20 Swiss francs
  - ☐ From 50 Swiss francs
  - ☐ From 100 Swiss francs
  - ☐ I pay nothing by card
  - ☐ I use my card only to help me out
  - ☐ Other:
11. Did you know that there are limitations with regards to payments in cash? (1 answer)
- ☐ Yes
  - ☐ No
12. In your opinion, up to what maximum amount is it allowed to pay in cash in a shop in Switzerland? (1 answer)
- ☐ 10'000 Swiss francs
  - ☐ 50'000 Swiss francs
  - ☐ 100'000 Swiss francs
13. Do you think that the amount for a cash payment should be capped? (1 answer)
- ☐ Yes
  - ☐ No
  - ☐ No opinion
14. Do you think that limiting cash payments helps fight tax evasion, money laundering or illegal transactions? (1 answer)
- ☐ Yes
  - ☐ No
  - ☐ Maybe
15. Why would you adopt a cashless payment system? (Many possible answers)
- ☐ Convenience
  - ☐ Discounts/cashback reward
  - ☐ Easy tracking of spends
  - ☐ Security (no need to carry cash)
  - ☐ Other:

16. What are your biggest concerns non-cash payments? (Many possible answers)

- ☐ Security
- ☐ Confidentiality
- ☐ Merchant acceptance
- ☐ Poor internet connectivity
- ☐ Lack of technology knowhow
- ☐ Costs (charges, interests, etc.)
- ☐ Other:

17. Do you think cash money is going to disappear? (1 answer)

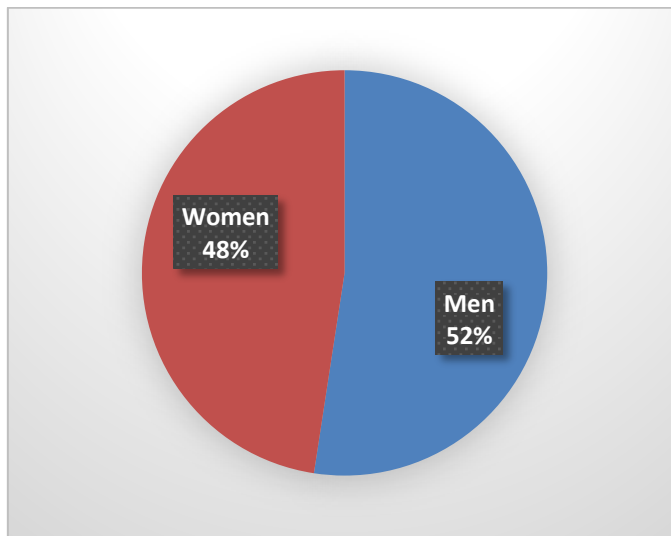
- ☐ No
- ☐ Yes, in 10 years
- ☐ Yes, in 20 years
- ☐ Yes, in a more distant future

18. How much cash do you usually have on you? (1 answer)

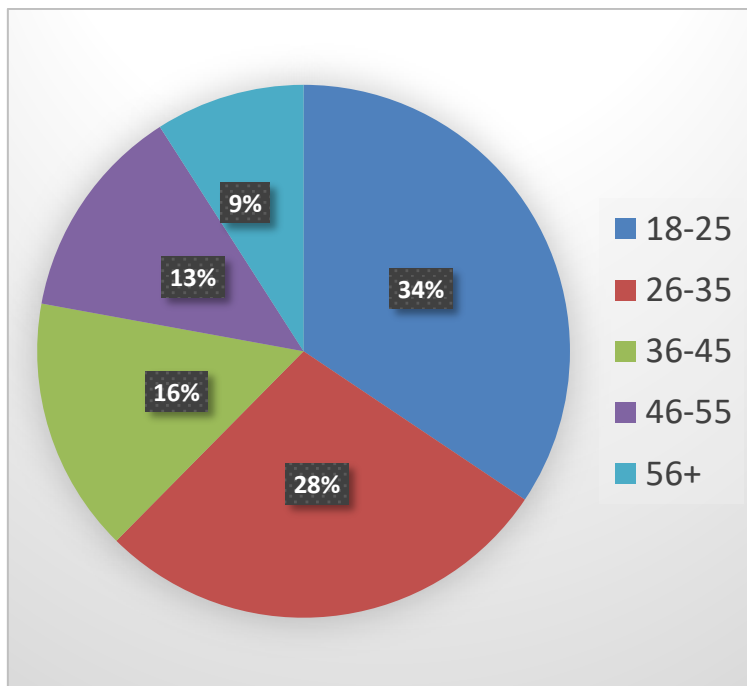
- ☐ Nothing
- ☐ Less than 20 Swiss francs
- ☐ Less than 50 Swiss francs
- ☐ Less than 100 Swiss francs
- ☐ More than 100 Swiss francs
- ☐ Other:

## Appendix 2: Means of payment survey responses

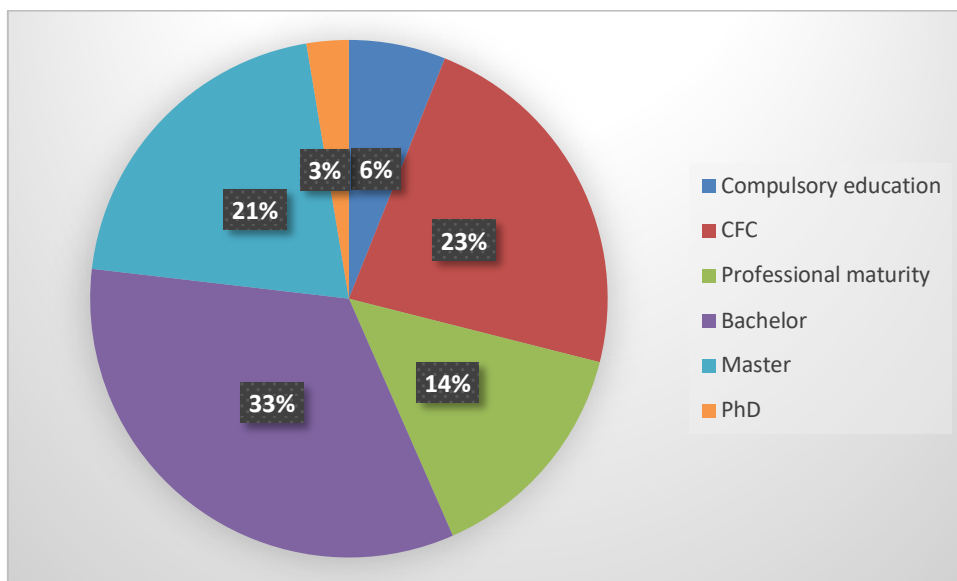
1. Are you? (1 answer)



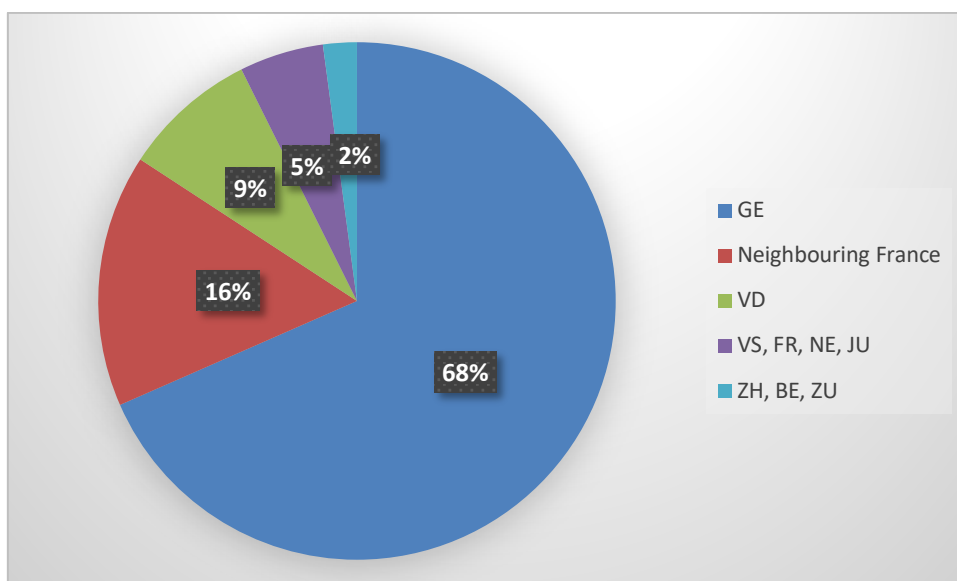
2. In which age group are you? (1 answer)



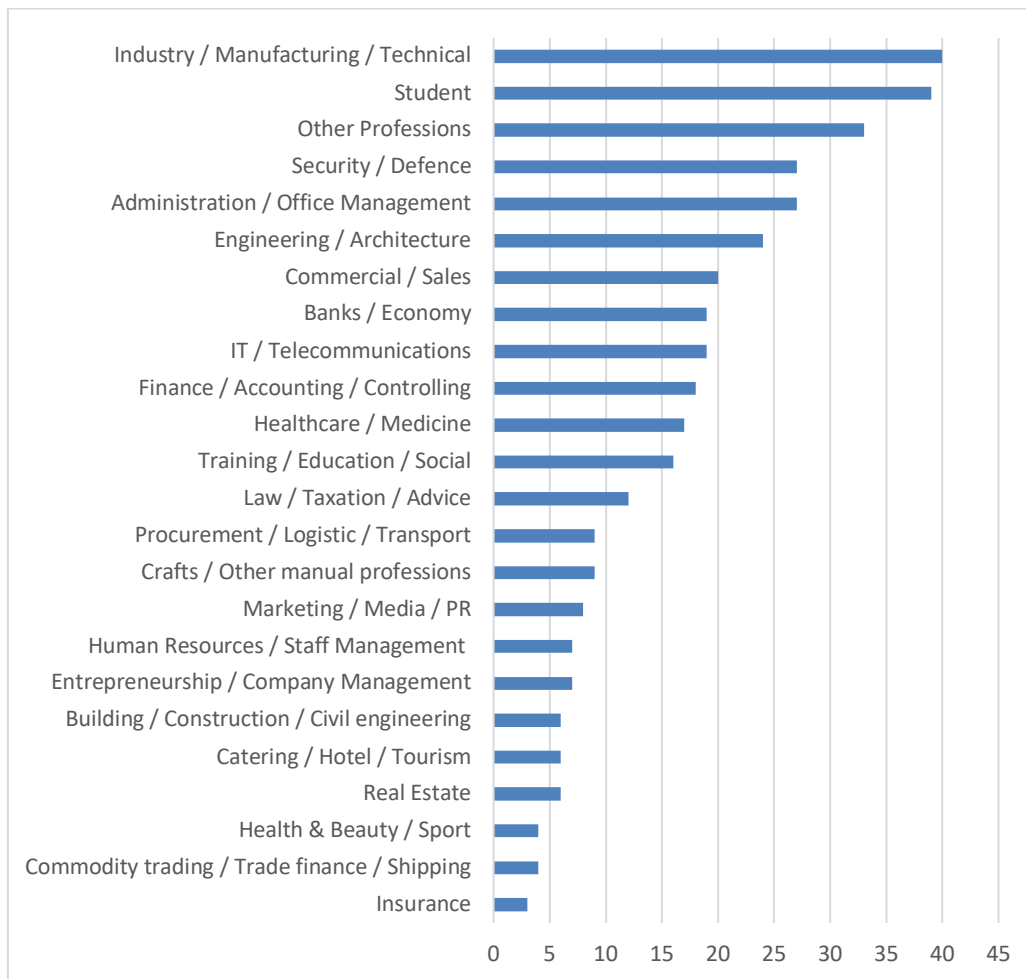
3. What is your level of education or equivalence? (1 answer)



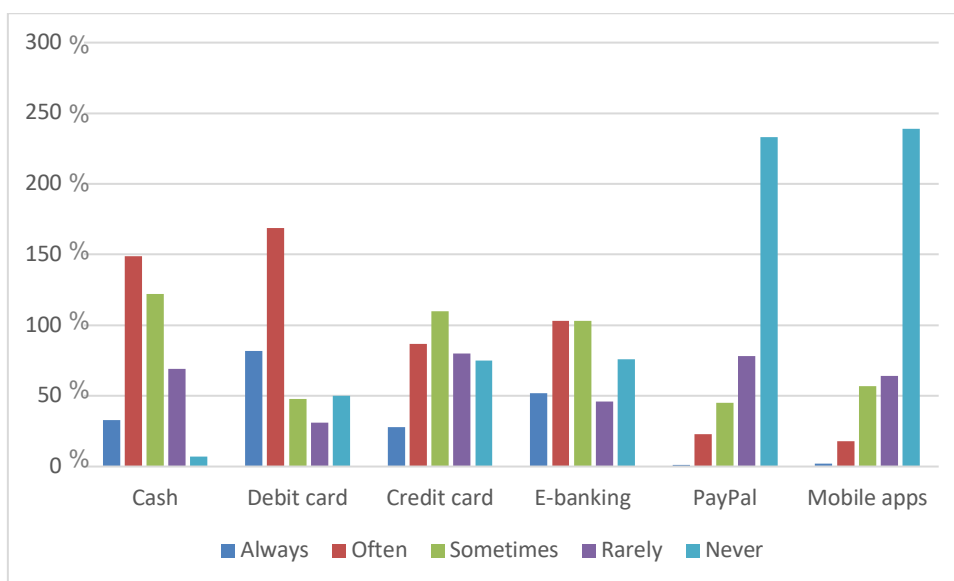
4. Where do you live? (1 answer)



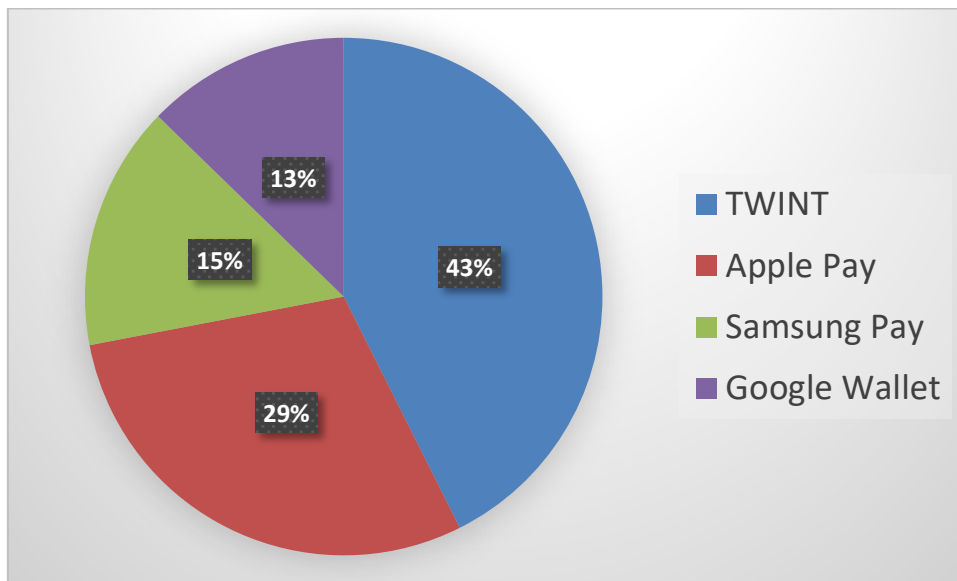
## 5. In which field do you work? (1 answer)



## 6. Which means of payments do you use the most? (1 answer per line)



7. Do you know any of the below mobile payment applications? (optional)



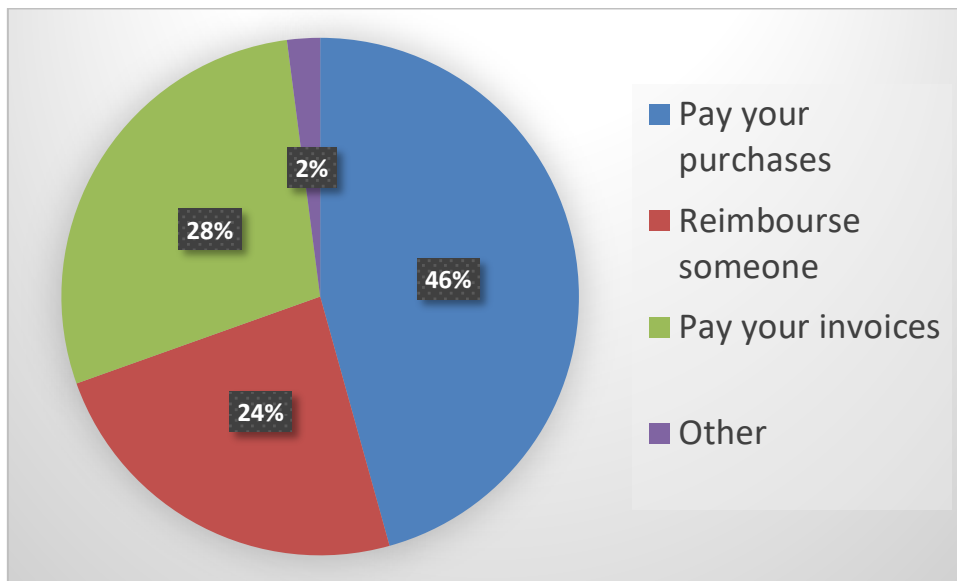
*Those results come from 64% of people surveyed*

8. Do you know any another mobile payment application? If yes, please specify which one (optional)

- Alipay: is a mobile and online payment platform from Alibaba AliExpress in China since 2004
- WeChat Pay: a mobile and online payment platform (Most popular application in China)
- Amazon payment: is a mobile and online payment platform from Amazon since 2007
- EDF et moi: is a mobile application use to pay electricity invoices (manage electricity consumption)
- Impot.gov (France) to pay taxes
- Migros: is a bank payment application
- N26: is a German direct bank (pioneer of mobile banking)
- Paymit: merged with TWINT in 2016
- Dukascopy: is a bank payment application
- E-finance: is a bank payment application
- PostFinance: is a bank payment application
- UBS Mobile: is a bank payment application
- UBS Multimat: is a bank payment application

*Those results come from 7% of people surveyed*

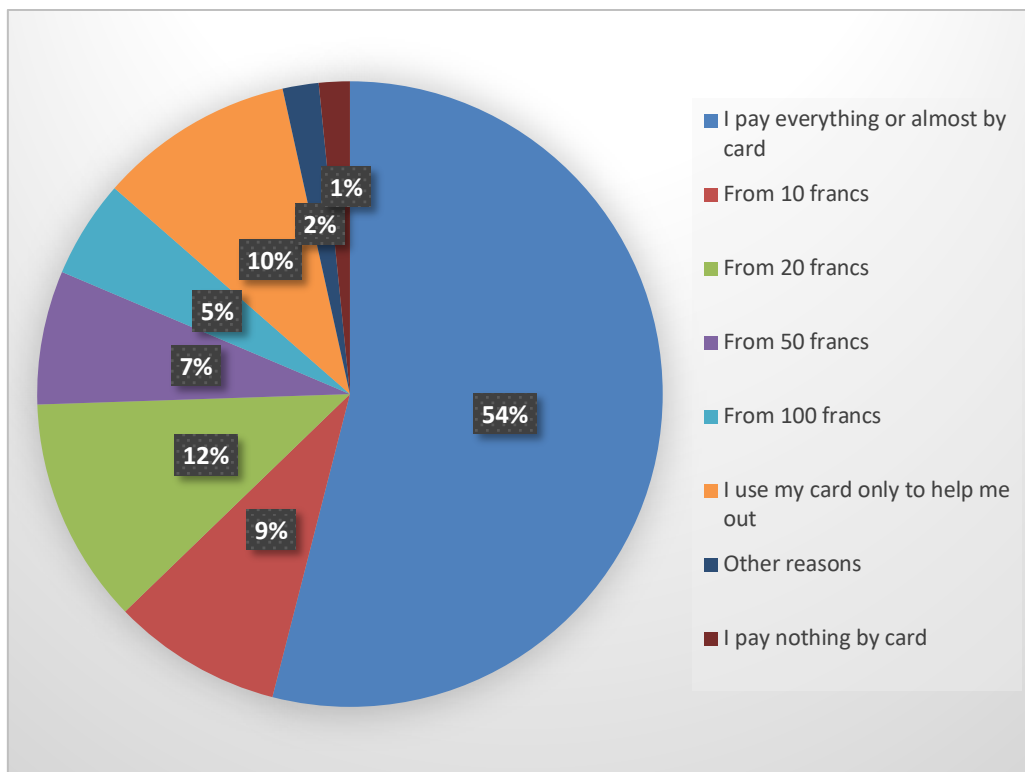
9. Have you already use a mobile application to: (optional)



Those results come from **40%** of people surveyed

OTHER: To access e-banking (2X), to make a donation (1X), and to buy a bus ticket (2X)

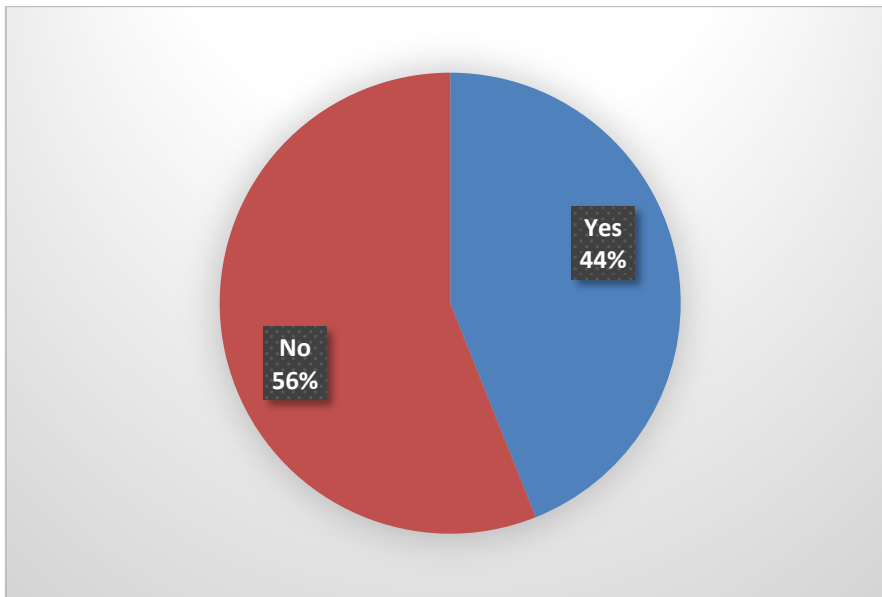
10. What is the minimum amount that you pay by card? (1 answer)



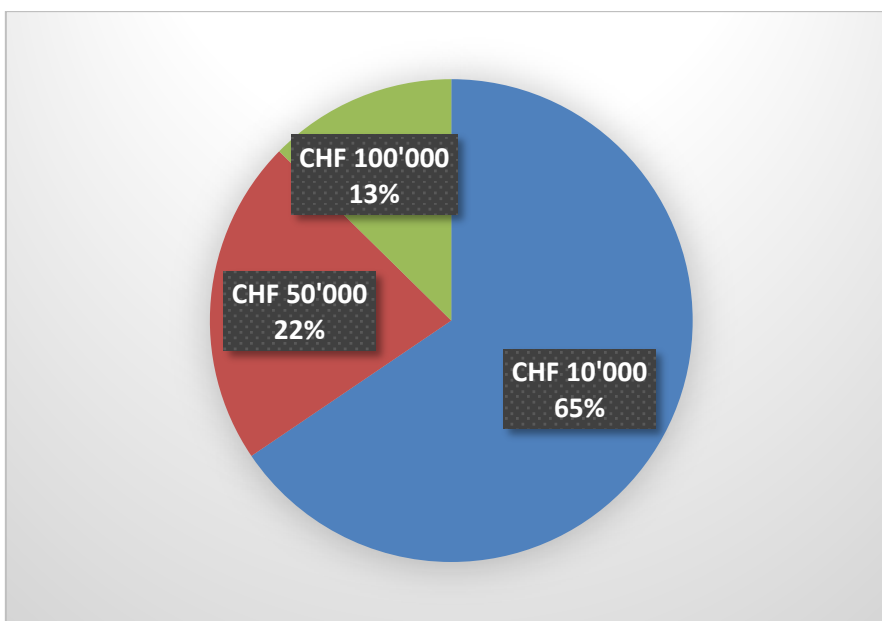
OTHER: No precise amount i.e. it is randomly (3X), depending how much cash I have on hand (2X), use the card mostly for online purchases (1X), on holidays (1X)



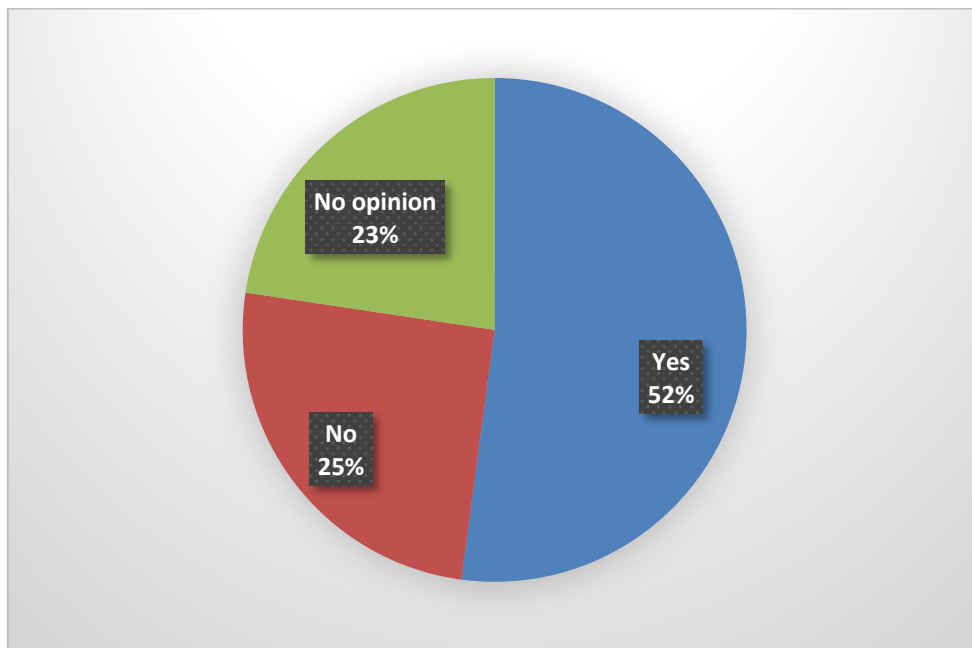
11. Did you know that there are limitations with regards to payments in cash? (1 answer)



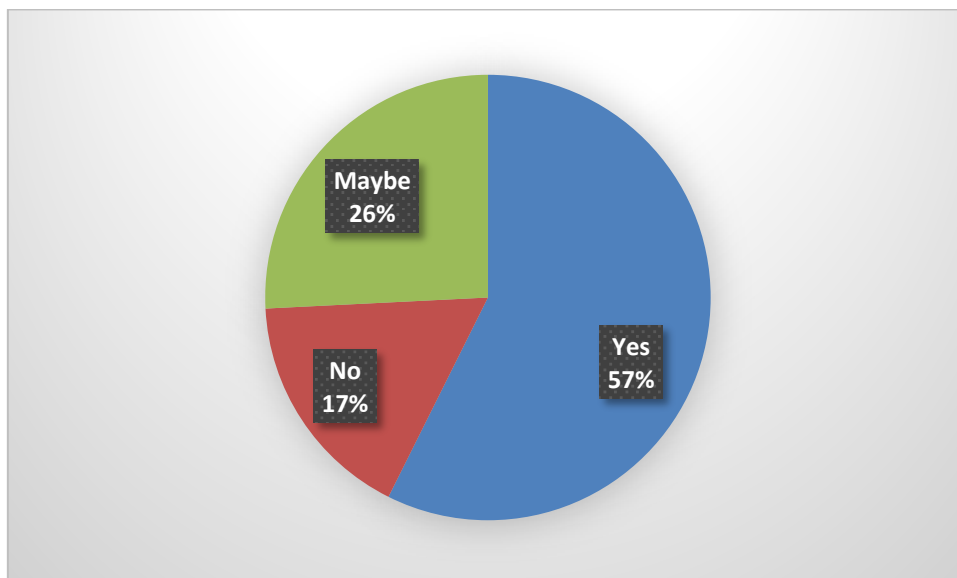
12. In your opinion, up to what maximum amount is it allowed to pay in cash in a shop in Switzerland? (1 answer)



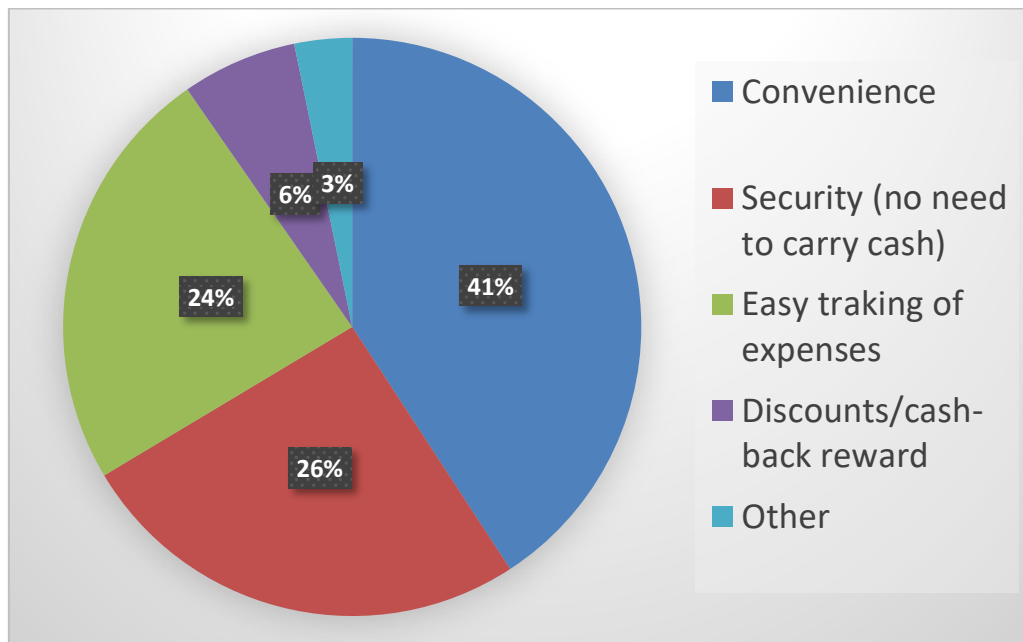
13. Do you think that the amount for a cash payment should be capped? (1 answer)



14. Do you think that limiting cash payments helps fight tax evasion, money laundering or illegal transactions? (1 answer)

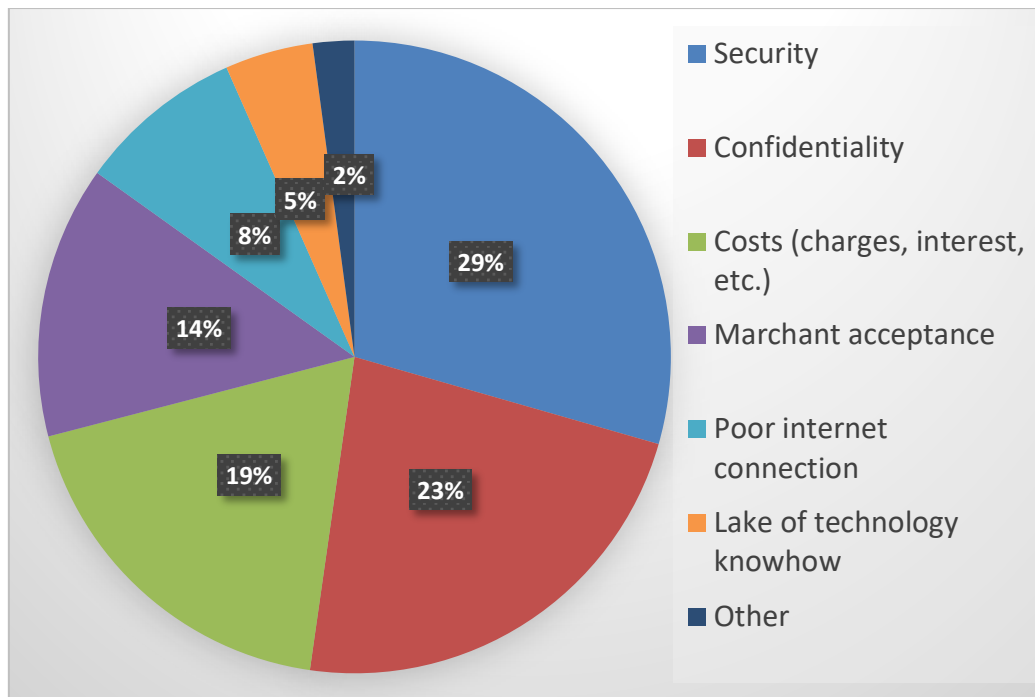


15. Why would you adopt a cashless payment system? (Many possible answers)



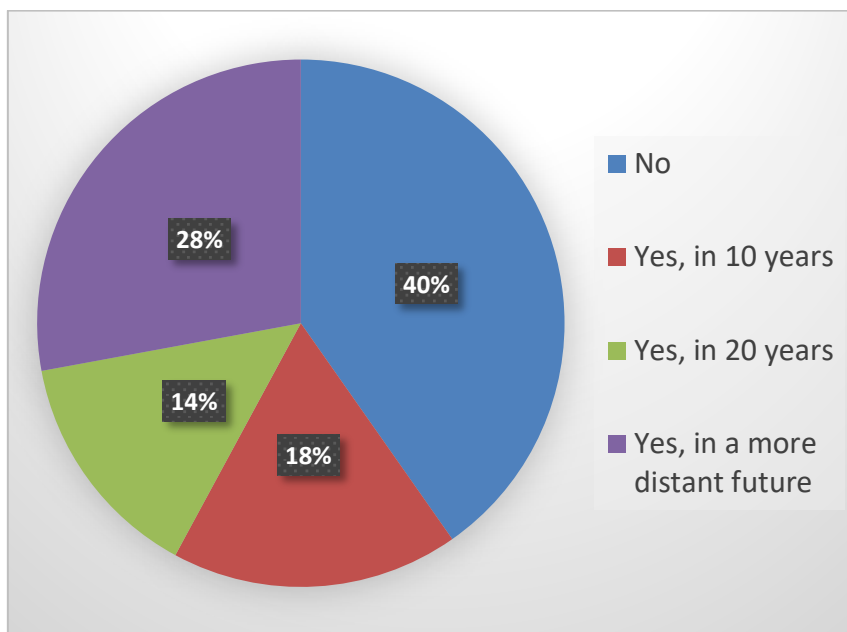
*OTHER: When I do not have cash (2X), for a lighter wallet, when is not possible to pay in cash, depending on the amount (only cash for small purchases). I will not adopt it (12X) for the following reasons: independence, control, ethics.*

16. What are your biggest concerns regarding non-cash payments? (Many possible answers)

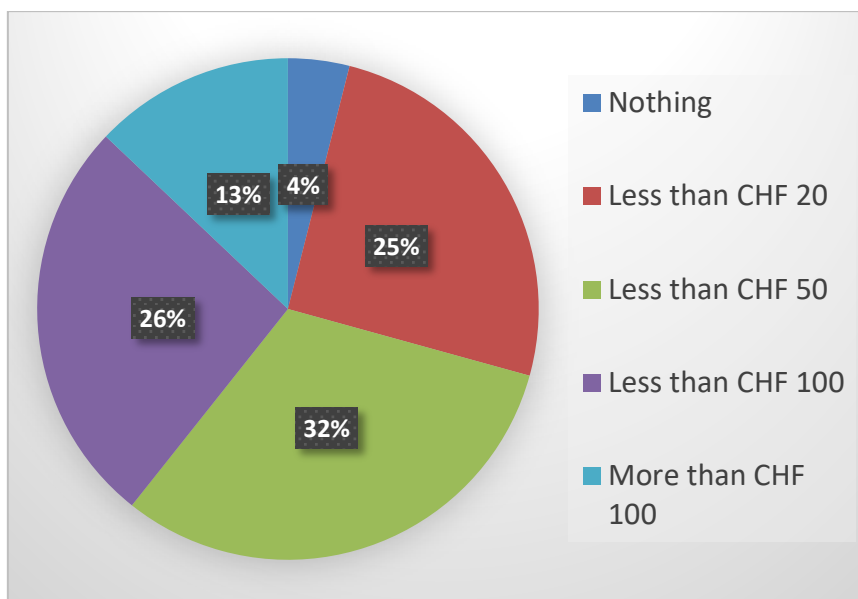


*OTHER: Mismanagement of expenses because less awareness of the money spent (5X), eliminates human workforce, control by the governments*

17. Do you think cash money is going to disappear? (1 answer)



18. How much cash do you usually have with you? (1 answer)



## Appendix 3: Modified data for linear regressions

### Gender (Question 1)

- 1: A man
- 0: A woman

### Age (Question 2)

- 1: 18 – 25
- 2: 26 – 35
- 3: 36 – 45
- 4: 46 – 55
- 5: 56+

### Education (Question 3)

- 1: Compulsory education
- 2: CFC
- 3: Professional maturity
- 4: Bachelor
- 5: Master
- 6: PhD

**Location:** as there is 70% of the sample is from Geneva, it is not representative

### Utilization's frequency of cash, debit and credit card, e-banking, PayPal, and mobile apps (Question 6)

- 1: Never
- 2: Rarely
- 3: Sometimes
- 4: Often
- 5: Always

### Awareness of TWINT, Apple pay, Samsung pay, and google wallet (Question 7)

- 1: yes
- 0: no

### Use of a mobile application to pay your purchases, reimburse someone, pay your invoices (Question 9)

- 1: yes
- 0: no

### Minimum amount for a payment by card (Question 10)

- 1: I pay everything or almost by card
- 2: From 10 francs
- 3: From 20 francs
- 4: From 50 francs
- 5: From 100 francs
- 6: I use my card only to help me out
- 7: I pay nothing by card

### Awareness of limitations on cash payments (Question 11)

- 1: yes
- 0: no

**Maximum amount allowed to pay in cash (Question 12)**

- 1: 10'000
- 2: 50'000
- 3: 100'000

**Be in favor for limitation on cash payments (Question 13)**

- 1: no
- 2: no opinion
- 3: yes

**Limiting cash payment help illegal transactions (Question 14)**

- 1: no
- 2: maybe
- 3: yes

**Advantages: convenience, easy tracking of spending, security, discount (Question 15)**

- 1: yes
- 0: no

**Disadvantages: lack of technology knowhow, poor internet connection, merchant acceptance, confidentiality, security (Question 16)**

- 1: yes
- 0: no

**Disappearance of cash (Question 17)**

- 1: no
- 2: yes, in a more distant future
- 3: yes, in 20 years
- 4: yes, in 10 years

**Amount of cash on hand in general by people (Question 18)**

- 1: nothing
- 2: less than 20
- 3: less than 50
- 4: less than 100
- 5: more than 100

## Appendix 4: Linear regressions with Stata software

### Cash

Source	SS	df	MS	Number of obs =	380
Model	1.836128	3	.612042665	F( 3, 376) =	0.70
Residual	330.31124	376	.878487342	Prob > F =	0.5545
				R-squared =	0.0055
				Adj R-squared =	-0.0024
Total	332.147368	379	.876378281	Root MSE =	.93728

cashfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.0565922	.0977309	-0.58	0.563	-.2487598 .1355754
age	-.0321394	.0364857	-0.88	0.379	-.103881 .0396022
education	-.0343369	.0381892	-0.90	0.369	-.1094281 .0407542
_cons	3.5717	.1692153	21.11	0.000	3.238973 3.904427

Source	SS	df	MS	Number of obs =	380
Model	44.1822554	13	3.39863503	F( 13, 366) =	4.32
Residual	287.965113	366	.786789926	Prob > F =	0.0000
				R-squared =	0.1330
				Adj R-squared =	0.1022
Total	332.147368	379	.876378281	Root MSE =	.88701

cashfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.0240043	.0936299	-0.26	0.798	-.2081243 .1601157
age	-.0238089	.0361363	-0.66	0.510	-.0948697 .047252
education	-.0180812	.0367482	-0.49	0.623	-.0903454 .0541829
conv	-.4862038	.1040786	-4.67	0.000	-.6908708 -.2815367
easytrack	-.1543958	.0974571	-1.58	0.114	-.3460418 .0372503
advsecur	-.3120119	.0952545	-3.28	0.001	-.4993266 -.1246972
discount	.2142684	.1519445	1.41	0.159	-.0845253 .5130621
dissecur	-.0834121	.098443	-0.85	0.397	-.276997 .1101728
confid	.0534334	.0970249	0.55	0.582	-.1373629 .2442297
costs	.215029	.0992235	2.17	0.031	.0199092 .4101488
maccept	-.0336548	.11422	-0.29	0.768	-.2582646 .1909549
poorint	.2959486	.1281443	2.31	0.021	.0439571 .54794
lackit	.1478367	.1615794	0.91	0.361	-.1699038 .4655772
_cons	3.902635	.1986711	19.64	0.000	3.511955 4.293316

Source	SS	df	MS	Number of obs =	380
Model	6.78384097	4	1.69596024	F( 4, 375) =	1.95
Residual	325.363527	375	.867636073	Prob > F =	0.1008
				R-squared =	0.0204
				Adj R-squared =	0.0100
Total	332.147368	379	.876378281	Root MSE =	.93147

cashfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.0478386	.0971946	-0.49	0.623	-.2389533 .1432761
age	-.0535886	.0373556	-1.43	0.152	-.1270413 .0198641
education	-.0278877	.0380486	-0.73	0.464	-.1027029 .0469276
awareapps	-.2467056	.1033108	-2.39	0.017	-.4498466 -.0435646
_cons	3.754473	.1847655	20.32	0.000	3.391167 4.11778

Source	SS	df	MS	Number of obs =	380
Model	<b>46.4699283</b>	<b>14</b>	<b>3.31928059</b>	F( 14, 365) =	<b>4.24</b>
Residual	<b>285.67744</b>	<b>365</b>	<b>.782677918</b>	Prob > F =	<b>0.0000</b>
				R-squared =	<b>0.1399</b>
				Adj R-squared =	<b>0.1069</b>
Total	<b>332.147368</b>	<b>379</b>	<b>.876378281</b>	Root MSE =	<b>.88469</b>

cashfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.0220242	.093392	-0.24	0.814	-.2056782 .1616298
age	-.0365163	.0368002	-0.99	0.322	-.1088833 .0358508
education	-.0145236	.0367111	-0.40	0.693	-.0867155 .0576682
conv	-.4713205	.1041706	-4.52	0.000	-.6761705 -.2664706
easytrack	-.1389469	.0976212	-1.42	0.155	-.3309174 .0530236
advsecur	-.3084595	.0950279	-3.25	0.001	-.4953305 -.1215885
discount	.2292281	.1517993	1.51	0.132	-.0692829 .5277391
dissecur	-.078141	.0982338	-0.80	0.427	-.2713163 .1150344
confid	.0428659	.0969683	0.44	0.659	-.1478207 .2335525
costs	.2128395	.0989722	2.15	0.032	.0182122 .4074668
maccept	-.0149578	.1144448	-0.13	0.896	-.2400118 .2100962
poorint	.3028667	.127873	2.37	0.018	.0514063 .554327
lackit	.1137661	.1623841	0.70	0.484	-.2055597 .433092
awareapps	-.1731972	.1013061	-1.71	0.088	-.372414 .0260196
_cons	4.009846	.2078374	19.29	0.000	3.601137 4.418555
Source	SS	df	MS	Number of obs =	380
Model	<b>6.65290499</b>	<b>4</b>	<b>1.66322625</b>	F( 4, 375) =	<b>1.92</b>
Residual	<b>325.494463</b>	<b>375</b>	<b>.867985236</b>	Prob > F =	<b>0.1071</b>
				R-squared =	<b>0.0200</b>
				Adj R-squared =	<b>0.0096</b>
Total	<b>332.147368</b>	<b>379</b>	<b>.876378281</b>	Root MSE =	<b>.93166</b>

cashfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.0527128	.0971589	-0.54	0.588	-.2437574 .1383318
age	-.0397613	.036411	-1.09	0.276	-.1113566 .031834
education	-.0330997	.0379639	-0.87	0.384	-.1077484 .041549
disapcash	-.1013906	.0430403	-2.36	0.019	-.1860213 -.01676
_cons	3.795779	.1932348	19.64	0.000	3.41582 4.175739

Source	SS	df	MS	Number of obs =	380
Model	<b>46.5158412</b>	<b>14</b>	<b>3.32256008</b>	F( 14, 365) =	<b>4.25</b>
Residual	<b>285.631527</b>	<b>365</b>	<b>.782552129</b>	Prob > F =	<b>0.0000</b>
				R-squared =	<b>0.1400</b>
				Adj R-squared =	<b>0.1071</b>
Total	<b>332.147368</b>	<b>379</b>	<b>.876378281</b>	Root MSE =	<b>.88462</b>

cashfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.0229613	.0933793	-0.25	0.806	-.2065903 .1606677
age	-.0300227	.0362181	-0.83	0.408	-.101245 .0411995
education	-.0175908	.0366502	-0.48	0.632	-.089663 .0544813
conv	-.4809711	.1038421	-4.63	0.000	-.685175 -.2767671
easytrack	-.1531553	.0971969	-1.58	0.116	-.3442915 .0379809
advsecur	-.2843308	.0963405	-2.95	0.003	-.4737829 -.0948786
discount	.2286332	.1517629	1.51	0.133	-.0698061 .5270725
dissecur	-.0816624	.0981828	-0.83	0.406	-.2747374 .1114125
confid	.0420078	.0969892	0.43	0.665	-.14872 .2327356
costs	.1987949	.0994015	2.00	0.046	.0033234 .3942665
maccept	-.0313354	.1139199	-0.28	0.783	-.2553571 .1926862
poorint	.2945079	.1278014	2.30	0.022	.0431884 .5458274
lackit	.1524309	.1611656	0.95	0.345	-.1644988 .4693606
disapcash	-.0721179	.0417626	-1.73	0.085	-.1542435 .0100077
_cons	4.056759	.2173093	18.67	0.000	3.629423 4.484094



Source	SS	df	MS	Number of obs =	380
Model	89.6013383	4	22.4003346	F( 4, 375) =	34.63
Residual	242.54603	375	.646789414	Prob > F =	0.0000
				R-squared =	0.2698
				Adj R-squared =	0.2620
Total	332.147368	379	.876378281	Root MSE =	.80423

cashfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.0905765	.0839089	-1.08	0.281	-.2555675 .0744145
age	-.2030105	.0345727	-5.87	0.000	-.2709912 -.1350298
education	-.029811	.0327706	-0.91	0.364	-.0942482 .0346262
onhand	.4957983	.0425623	11.65	0.000	.4121076 .579489
_cons	2.394212	.1769165	13.53	0.000	2.046339 2.742085

Source	SS	df	MS	Number of obs =	380
Model	112.17805	14	8.01271784	F( 14, 365) =	13.30
Residual	219.969319	365	.602655668	Prob > F =	0.0000
				R-squared =	0.3377
				Adj R-squared =	0.3123
Total	332.147368	379	.876378281	Root MSE =	.77631

cashfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.0656643	.0820383	-0.80	0.424	-.2269912 .0956627
age	-.1838677	.0350327	-5.25	0.000	-.252759 -.1149765
education	-.0195375	.0321622	-0.61	0.544	-.0827839 .043709
conv	-.3392501	.0921338	-3.68	0.000	-.5204298 -.1580705
easytrack	-.1751828	.0853165	-2.05	0.041	-.3429563 -.0074093
advsecur	-.1796359	.0842927	-2.13	0.034	-.3453961 -.0138756
discount	.1602533	.1330783	1.20	0.229	-.1014433 .4219498
dissecur	-.0297651	.0863048	-0.34	0.730	-.1994822 .139952
confid	.0198703	.0849746	0.23	0.815	-.1472309 .1869715
costs	.1606372	.0869909	1.85	0.066	-.010429 .3317034
maccept	.0063745	.1000359	0.06	0.949	-.1903444 .2030935
poorint	.3038967	.1121538	2.71	0.007	.0833479 .5244454
lackit	.0657204	.1416247	0.46	0.643	-.2127825 .3442232
onhand	.4503788	.0424006	10.62	0.000	.3669988 .5337589
_cons	2.717132	.2066139	13.15	0.000	2.310829 3.123435

## Debit

Source	SS	df	MS	Number of obs =	380
Model	53.7333359	3	17.911112	F( 3, 376) =	11.88
Residual	566.887717	376	1.5076801	Prob > F =	0.0000
				R-squared =	0.0866
				Adj R-squared =	0.0793
				Root MSE =	1.2279
Total	620.621053	379	1.63752257		

debitfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.1316771	.1280321	-1.03	0.304	-.3834256 .1200715
age	-.2769648	.047798	-5.79	0.000	-.3709497 -.18298
education	.0217055	.0500296	0.43	0.665	-.0766674 .1200784
_cons	4.177881	.22168	18.85	0.000	3.741993 4.613769

Source	SS	df	MS	Number of obs =	380
Model	98.1229158	13	7.5479166	F( 13, 366) =	5.29
Residual	522.498137	366	1.42759054	Prob > F =	0.0000
				R-squared =	0.1581
				Adj R-squared =	0.1282
				Root MSE =	1.1948
Total	620.621053	379	1.63752257		

debitfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.1896993	.1261208	-1.50	0.133	-.4377117 .0583131
age	-.2848715	.0486761	-5.85	0.000	-.3805915 -.1891515
education	.0142362	.0495004	0.29	0.774	-.0831047 .1115772
conv	.3070464	.1401954	2.19	0.029	.0313568 .582736
easytrack	.1680321	.1312761	1.28	0.201	-.090118 .4261822
advsecur	.4325469	.1283092	3.37	0.001	.1802311 .6848626
discount	-.0123946	.2046715	-0.06	0.952	-.4148743 .390085
dissecur	.2016296	.1326042	1.52	0.129	-.0591322 .4623914
confid	-.1951252	.130694	-1.49	0.136	-.4521307 .0618802
costs	-.1101339	.1336556	-0.82	0.410	-.3729632 .1526953
maccept	.1434372	.153856	0.93	0.352	-.1591156 .4459899
poorint	-.3429125	.1726123	-1.99	0.048	-.6823488 -.0034762
lackit	-.2772959	.2176498	-1.27	0.203	-.7052971 .1507053
_cons	3.822051	.2676129	14.28	0.000	3.295799 4.348303

Source	SS	df	MS	Number of obs =	380
Model	63.1255071	4	15.7813768	F( 4, 375) =	10.62
Residual	557.495545	375	1.48665479	Prob > F =	0.0000
				R-squared =	0.1017
				Adj R-squared =	0.0921
				Root MSE =	1.2193
Total	620.621053	379	1.63752257		

debitfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	-.1437376	.1272267	-1.13	0.259	-.3939048 .1064295
age	-.2474125	.0488981	-5.06	0.000	-.3435613 -.1512636
education	.0128198	.0498052	0.26	0.797	-.0851126 .1107522
awareapps	.3399067	.1352327	2.51	0.012	.0739972 .6058162
_cons	3.926059	.2418562	16.23	0.000	3.450494 4.401623

Source	SS	df	MS	Number of obs =	380
Model	102.370916	14	7.31220826	F( 14, 365) =	5.15
Residual	518.250137	365	1.41986339	Prob > F =	0.0000
				R-squared =	0.1649
				Adj R-squared =	0.1329
Total	620.621053	379	1.63752257	Root MSE =	1.1916

debitfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	-.1923975	.1257887	-1.53	0.127	-.4397591	.054964
age	-.2675554	.0495658	-5.40	0.000	-.3650257	-.170085
education	.0093883	.0494458	0.19	0.850	-.0878461	.1066227
conv	.2867652	.1403063	2.04	0.042	.0108551	.5626753
easytrack	.1469802	.1314849	1.12	0.264	-.1115827	.4055432
advsecur	.4277061	.1279921	3.34	0.001	.1760116	.6794005
discount	-.03278	.2044568	-0.16	0.873	-.4348411	.3692811
dissecur	.1944467	.13231	1.47	0.143	-.065739	.4546324
confid	-.1807251	.1306055	-1.38	0.167	-.4375587	.0761085
costs	-.1071503	.1333046	-0.80	0.422	-.3692916	.1549911
maccept	.1179589	.1541445	0.77	0.445	-.1851638	.4210817
poorint	-.3523397	.1722307	-2.05	0.041	-.6910288	-.0136506
lackit	-.2308685	.2187133	-1.06	0.292	-.6609648	.1992279
awareapps	.2360131	.136448	1.73	0.085	-.0323098	.504336
_cons	3.675957	.2799338	13.13	0.000	3.125472	4.226443

Source	SS	df	MS	Number of obs =	380
Model	53.7553722	4	13.438843	F( 4, 375) =	8.89
Residual	566.86568	375	1.51164181	Prob > F =	0.0000
				R-squared =	0.0866
				Adj R-squared =	0.0769
Total	620.621053	379	1.63752257	Root MSE =	1.2295

debitfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	-.1319395	.1282186	-1.03	0.304	-.384057	.120178
age	-.2764493	.0480508	-5.75	0.000	-.3709321	-.1819665
education	.0216218	.0501001	0.43	0.666	-.0768906	.1201341
disapcash	.0068579	.0567994	0.12	0.904	-.1048275	.1185432
_cons	4.162725	.2550079	16.32	0.000	3.6613	4.66415

Source	SS	df	MS	Number of obs =	380
Model	98.7677389	14	7.0548385	F( 14, 365) =	4.93
Residual	521.853314	365	1.42973511	Prob > F =	0.0000
				R-squared =	0.1591
				Adj R-squared =	0.1269
Total	620.621053	379	1.63752257	Root MSE =	1.1957

debitfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	-.189151	.1262182	-1.50	0.135	-.4373571	.059055
age	-.2881379	.0489549	-5.89	0.000	-.384407	-.1918688
education	.014494	.0495391	0.29	0.770	-.0829238	.1119119
conv	.309797	.1403604	2.21	0.028	.0337804	.5858137
easytrack	.1686842	.1313783	1.28	0.200	-.0896691	.4270375
advsecur	.4470979	.1302207	3.43	0.001	.1910208	.7031749
discount	-.0048435	.2051335	-0.02	0.981	-.4082355	.3985484
dissecur	.2025493	.1327109	1.53	0.128	-.0584245	.4635232
confid	-.2011313	.1310976	-1.53	0.126	-.4589326	.0566701
costs	-.1186676	.1343582	-0.88	0.378	-.382881	.1455457
maccept	.1446564	.1539822	0.94	0.348	-.1581473	.4474601
poorint	-.3436698	.1727455	-1.99	0.047	-.6833713	-.0039684
lackit	-.2748809	.217843	-1.26	0.208	-.7032657	.1535039
disapcash	-.0379098	.0564494	-0.67	0.502	-.1489167	.073097
_cons	3.903068	.2937308	13.29	0.000	3.325451	4.480686

Source	SS	df	MS	Number of obs =	380
Model	65.0706434	4	16.2676609	F( 4, 375) =	10.98
Residual	555.550409	375	1.48146776	Prob > F =	0.0000
				R-squared =	0.1048
				Adj R-squared =	0.0953
Total	620.621053	379	1.63752257	Root MSE =	1.2172

debitfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	-.1194627	.126991	-0.94	0.347	-.3691663	.130241
age	-.2155515	.0523237	-4.12	0.000	-.3184361	-.1126669
education	.0200788	.0495963	0.40	0.686	-.0774429	.1176005
onhand	-.1781963	.0644154	-2.77	0.006	-.3048571	-.0515356
_cons	4.601086	.2677522	17.18	0.000	4.074602	5.12757

Source	SS	df	MS	Number of obs =	380
Model	102.340713	14	7.3100509	F( 14, 365) =	5.15
Residual	518.28034	365	1.41994614	Prob > F =	0.0000
				R-squared =	0.1649
				Adj R-squared =	0.1329
Total	620.621053	379	1.63752257	Root MSE =	1.1916

debitfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	-.1793235	.1259267	-1.42	0.155	-.4269564	.0683094
age	-.2450074	.0537743	-4.56	0.000	-.3507538	-.1392611
education	.0145989	.0493682	0.30	0.768	-.0824828	.1116806
conv	.2704463	.141423	1.91	0.057	-.00766	.5485525
easytrack	.1732093	.1309586	1.32	0.187	-.0843188	.4307375
advsecur	.3995775	.1293871	3.09	0.002	.1451397	.6540153
discount	.0010583	.2042719	0.01	0.996	-.4006393	.4027559
dissecur	.1882684	.1324757	1.42	0.156	-.0722432	.4487799
confid	-.1867661	.1304338	-1.43	0.153	-.4432622	.0697301
costs	-.0965872	.1335288	-0.72	0.470	-.3591695	.1659952
maccept	.1334675	.1535525	0.87	0.385	-.1684912	.4354262
poorint	-.344892	.1721533	-2.00	0.046	-.6834289	-.0063552
lackit	-.2568441	.2173905	-1.18	0.238	-.6843391	.1706509
onhand	-.1121708	.0650838	-1.72	0.086	-.2401571	.0158155
_cons	4.117311	.3171472	12.98	0.000	3.493646	4.740976

## Credit

Source	SS	df	MS	Number of obs =	380
Model	28.7121746	3	9.57072487	F( 3, 376) =	6.79
Residual	530.369404	376	1.41055693	Prob > F =	0.0002
				R-squared =	0.0514
				Adj R-squared =	0.0438
Total	559.081579	379	1.47514928	Root MSE =	1.1877

creditfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1203704	.1238396	0.97	0.332	-.1231345 .3638753
age	.0875276	.0462328	1.89	0.059	-.0033797 .1784348
education	.1854485	.0483914	3.83	0.000	.0902969 .2806002
_cons	1.858166	.214421	8.67	0.000	1.436551 2.279781

Source	SS	df	MS	Number of obs =	380
Model	42.0627113	13	3.23559318	F( 13, 366) =	2.29
Residual	517.018868	366	1.41261986	Prob > F =	0.0064
				R-squared =	0.0752
				Adj R-squared =	0.0424
Total	559.081579	379	1.47514928	Root MSE =	1.1885

creditfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.0962192	.1254578	0.77	0.444	-.1504893 .3429278
age	.1029209	.0484202	2.13	0.034	.0077041 .1981377
education	.1735897	.0492402	3.53	0.000	.0767604 .2704189
conv	.1147562	.1394584	0.82	0.411	-.159484 .3889965
easytrack	-.0510102	.130586	-0.39	0.696	-.3078032 .2057828
advsecur	.0553835	.1276347	0.43	0.665	-.1956058 .3063728
discount	.2760456	.2035955	1.36	0.176	-.1243181 .6764094
dissecur	-.1292115	.1319071	-0.98	0.328	-.3886024 .1301794
confid	-.0810285	.1300069	-0.62	0.534	-.3366828 .1746258
costs	-.1061011	.132953	-0.80	0.425	-.3675487 .1553464
maccept	.1617543	.1530472	1.06	0.291	-.1392079 .4627164
poorint	.1544314	.1717048	0.90	0.369	-.1832204 .4920832
lackit	-.1919183	.2165056	-0.89	0.376	-.6176694 .2338328
_cons	1.855544	.266206	6.97	0.000	1.332059 2.379029

Source	SS	df	MS	Number of obs =	380
Model	40.4391819	4	10.1097955	F( 4, 375) =	7.31
Residual	518.642397	375	1.38304639	Prob > F =	0.0000
				R-squared =	0.0723
				Adj R-squared =	0.0624
Total	559.081579	379	1.47514928	Root MSE =	1.176

creditfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1068939	.1227133	0.87	0.384	-.1343985 .3481862
age	.1205495	.0471634	2.56	0.011	.0278116 .2132875
education	.1755196	.0480383	3.65	0.000	.0810614 .2699779
awareapps	.3798135	.1304353	2.91	0.004	.1233372 .6362897
_cons	1.576778	.2332763	6.76	0.000	1.118085 2.035472

Source	SS	df	MS	Number of obs =	380
Model	50.3975403	14	3.59982431	F( 14, 365) =	2.58
Residual	508.684039	365	1.3936549	Prob > F =	0.0014
				R-squared =	0.0901
				Adj R-squared =	0.0552
Total	559.081579	379	1.47514928	Root MSE =	1.1805

creditfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.0924397	.1246224	0.74	0.459	-.1526283 .3375076
age	.1271763	.0491062	2.59	0.010	.0306097 .2237428
education	.166799	.0489873	3.40	0.001	.0704662 .2631318
conv	.0863477	.1390053	0.62	0.535	-.1870041 .3596995
easytrack	-.0804984	.1302657	-0.62	0.537	-.3366639 .1756671
advsecur	.0486029	.1268053	0.38	0.702	-.2007578 .2979635
discount	.2474911	.202561	1.22	0.223	-.150842 .6458242
dissecur	-.1392729	.1310832	-1.06	0.289	-.3970461 .1185003
confid	-.0608577	.1293945	-0.47	0.638	-.3153099 .1935945
costs	-.1019218	.1320685	-0.77	0.441	-.3616325 .1577889
maccept	.126066	.1527152	0.83	0.410	-.1742461 .4263781
poorint	.1412264	.1706338	0.83	0.408	-.1943223 .4767751
lackit	-.1268858	.2166853	-0.59	0.559	-.5529942 .2992226
awareapps	.3305919	.1351828	2.45	0.015	.064757 .5964269
_cons	1.650905	.2773382	5.95	0.000	1.105524 2.196286

Source	SS	df	MS	Number of obs =	380
Model	36.3922827	4	9.09807068	F( 4, 375) =	6.53
Residual	522.689296	375	1.39383812	Prob > F =	0.0000
				R-squared =	0.0651
				Adj R-squared =	0.0551
Total	559.081579	379	1.47514928	Root MSE =	1.1806

creditfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1154718	.1231212	0.94	0.349	-.1266225 .3575662
age	.0971519	.0461405	2.11	0.036	.0064253 .1878785
education	.1838863	.0481083	3.82	0.000	.0892903 .2784822
disapcash	.1280275	.0545413	2.35	0.019	.0207823 .2352727
_cons	1.575217	.2448699	6.43	0.000	1.093727 2.056707

Source	SS	df	MS	Number of obs =	380
Model	47.9903802	14	3.4278843	F( 14, 365) =	2.45
Residual	511.091199	365	1.40024986	Prob > F =	0.0026
				R-squared =	0.0858
				Adj R-squared =	0.0508
Total	559.081579	379	1.47514928	Root MSE =	1.1833

creditfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.0945569	.1249099	0.76	0.450	-.1510764 .3401903
age	.1128245	.0484475	2.33	0.020	.0175533 .2080957
education	.172808	.0490256	3.52	0.000	.0763999 .2692161
conv	.1064164	.1389056	0.77	0.444	-.1667393 .3795721
easytrack	-.0529873	.1300165	-0.41	0.684	-.3086627 .2026882
advsecur	.0112657	.128871	0.09	0.930	-.2421571 .2646886
discount	.2531511	.2030073	1.25	0.213	-.1460596 .6523618
dissecur	-.1320001	.1313353	-1.01	0.316	-.3902689 .1262687
confid	-.0628185	.1297387	-0.48	0.629	-.3179477 .1923107
costs	-.0802274	.1329655	-0.60	0.547	-.3417021 .1812473
maccept	.1580576	.1523862	1.04	0.300	-.1416075 .4577227
poorint	.1567275	.170955	0.92	0.360	-.1794529 .4929079
lackit	-.1992405	.215585	-0.92	0.356	-.623185 .2247041
disapcash	.1149406	.0558643	2.06	0.040	.0050843 .2247968
_cons	1.609905	.2906862	5.54	0.000	1.038275 2.181535



Source	SS	df	MS	Number of obs =	380
Model	29.028444	4	7.25711099	F( 4, 375) =	5.13
Residual	530.053135	375	1.41347503	Prob > F =	0.0005
				R-squared =	0.0519
				Adj R-squared =	0.0418
Total	559.081579	379	1.47514928	Root MSE =	1.1889

creditfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1224104	.1240426	0.99	0.324	-.1214958 .3663167
age	.0977849	.0511089	1.91	0.056	-.002711 .1982808
education	.1851769	.0484448	3.82	0.000	.0899193 .2804344
onhand	-.0297627	.0629199	-0.47	0.636	-.1534827 .0939573
_cons	1.92885	.2615357	7.38	0.000	1.41459 2.443111

Source	SS	df	MS	Number of obs =	380
Model	42.1095003	14	3.00782145	F( 14, 365) =	2.12
Residual	516.972079	365	1.41636186	Prob > F =	0.0103
				R-squared =	0.0753
				Adj R-squared =	0.0399
Total	559.081579	379	1.47514928	Root MSE =	1.1901

creditfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.097312	.1257676	0.77	0.440	-.1500081 .3446322
age	.1071196	.0537064	1.99	0.047	.0015068 .2127323
education	.1736279	.0493058	3.52	0.000	.0766687 .270587
conv	.1109013	.1412444	0.79	0.433	-.1668537 .3886564
easytrack	-.0504649	.1307932	-0.39	0.700	-.3076678 .206738
advsecur	.0519111	.1292237	0.40	0.688	-.2022054 .3060275
discount	.2774625	.204014	1.36	0.175	-.1237278 .6786529
dissecur	-.1306188	.1323084	-0.99	0.324	-.3908013 .1295637
confid	-.0801481	.1302691	-0.62	0.539	-.3363203 .1760242
costs	-.1046743	.1333602	-0.78	0.433	-.3669251 .1575764
maccept	.1607042	.1533586	1.05	0.295	-.1408731 .4622816
poorint	.1542229	.1719359	0.90	0.370	-.1838864 .4923322
lackit	-.1897642	.2171159	-0.87	0.383	-.6167193 .2371909
onhand	-.0118143	.0650016	-0.18	0.856	-.139639 .1160103
_cons	1.886642	.3167467	5.96	0.000	1.263765 2.50952

## E-banking

Source	SS	df	MS	Number of obs =	380
Model	14.9069292	3	4.96897641	F( 3, 376) =	2.89
Residual	645.879913	376	1.71776573	Prob > F =	0.0353
				R-squared =	0.0226
				Adj R-squared =	0.0148
Total	660.786842	379	1.7435009	Root MSE =	1.3106

ebankfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1824763	.1366615	1.34	0.183	-.0862402 .4511928
age	-.0110578	.0510196	-0.22	0.829	-.1113773 .0892617
education	.1249621	.0534016	2.34	0.020	.0199589 .2299654
_cons	2.521588	.2366214	10.66	0.000	2.056321 2.986855

Source	SS	df	MS	Number of obs =	380
Model	48.2647367	13	3.71267205	F( 13, 366) =	2.22
Residual	612.522105	366	1.67355767	Prob > F =	0.0086
				R-squared =	0.0730
				Adj R-squared =	0.0401
Total	660.786842	379	1.7435009	Root MSE =	1.2937

ebankfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1187548	.1365543	0.87	0.385	-.1497747 .3872842
age	-.0097164	.0527029	-0.18	0.854	-.1133549 .0939222
education	.1148439	.0535954	2.14	0.033	.0094504 .2202375
conv	.1258691	.1517932	0.83	0.408	-.1726271 .4243653
easytrack	.1100563	.142136	0.77	0.439	-.1694495 .3895621
advsecur	.3317355	.1389237	2.39	0.017	.0585467 .6049243
discount	.5208509	.2216031	2.35	0.019	.0850757 .956626
dissecur	-.0039147	.143574	-0.03	0.978	-.2862482 .2784189
confid	-.2639856	.1415058	-1.87	0.063	-.542252 .0142809
costs	-.2445724	.1447124	-1.69	0.092	-.5291445 .0399997
maccept	.1122055	.1665839	0.67	0.501	-.2153762 .4397872
poorint	-.176246	.1868918	-0.94	0.346	-.5437624 .1912704
lackit	-.1872696	.2356551	-0.79	0.427	-.6506775 .2761384
_cons	2.466729	.2897514	8.51	0.000	1.896942 3.036515

Source	SS	df	MS	Number of obs =	380
Model	37.9409051	4	9.48522628	F( 4, 375) =	5.71
Residual	622.845937	375	1.6609225	Prob > F =	0.0002
				R-squared =	0.0574
				Adj R-squared =	0.0474
Total	660.786842	379	1.7435009	Root MSE =	1.2888

ebankfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1635891	.134477	1.22	0.225	-.1008343 .4280125
age	.0352222	.0516847	0.68	0.496	-.0664059 .1368503
education	.1110469	.0526434	2.11	0.036	.0075336 .2145602
awareapps	.5323058	.1429392	3.72	0.000	.2512429 .8133687
_cons	2.127225	.2556389	8.32	0.000	1.62456 2.62989



Source	SS	df	MS	Number of obs =	380
Model	63.6186565	14	4.54418975	F( 14, 365) =	2.78
Residual	597.168186	365	1.63607722	Prob > F =	0.0006
				R-squared =	0.0963
				Adj R-squared =	0.0616
Total	660.786842	379	1.7435009	Root MSE =	1.2791

ebankfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.113625	.1350269	0.84	0.401	-.1519033 .3791532
age	.0232043	.053206	0.44	0.663	-.0814244 .127833
education	.1056273	.0530772	1.99	0.047	.0012518 .2100028
conv	.0873115	.1506106	0.58	0.562	-.208862 .383485
easytrack	.0700334	.1411414	0.50	0.620	-.207519 .3475857
advsecur	.3225324	.1373921	2.35	0.019	.052353 .5927118
discount	.4820951	.2194725	2.20	0.029	.0505058 .9136844
dissecur	-.0175705	.1420272	-0.12	0.902	-.2968648 .2617237
confid	-.2366087	.1401974	-1.69	0.092	-.5123047 .0390873
costs	-.2389	.1430947	-1.67	0.096	-.5202936 .0424935
maccept	.0637675	.1654652	0.39	0.700	-.2616172 .3891522
poorint	-.1941685	.1848797	-1.05	0.294	-.5577316 .1693946
lackit	-.099004	.2347761	-0.42	0.673	-.5606875 .3626796
awareapps	.4486974	.146469	3.06	0.002	.1606683 .7367265
_cons	2.188981	.3004927	7.28	0.000	1.598067 2.779896

Source	SS	df	MS	Number of obs =	380
Model	17.7464374	4	4.43660935	F( 4, 375) =	2.59
Residual	643.040405	375	1.71477441	Prob > F =	0.0366
				R-squared =	0.0269
				Adj R-squared =	0.0165
Total	660.786842	379	1.7435009	Root MSE =	1.3095

ebankfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1794978	.136562	1.31	0.190	-.0890256 .4480211
age	-.0052058	.0511776	-0.10	0.919	-.1058368 .0954253
education	.1240122	.0533602	2.32	0.021	.0190894 .228935
disapcash	.0778469	.0604955	1.29	0.199	-.0411061 .1967998
_cons	2.349542	.2716019	8.65	0.000	1.815488 2.883595

Source	SS	df	MS	Number of obs =	380
Model	48.7519337	14	3.48228098	F( 14, 365) =	2.08
Residual	612.034908	365	1.67680797	Prob > F =	0.0125
				R-squared =	0.0738
				Adj R-squared =	0.0383
Total	660.786842	379	1.7435009	Root MSE =	1.2949

ebankfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1182782	.1366897	0.87	0.387	-.1505199 .3870763
age	-.0068771	.0530164	-0.13	0.897	-.111133 .0973788
education	.1146198	.053649	2.14	0.033	.0091198 .2201198
conv	.1234782	.1520052	0.81	0.417	-.1754378 .4223941
easytrack	.1094895	.1422779	0.77	0.442	-.1702978 .3892768
advsecur	.3190874	.1410243	2.26	0.024	.0417652 .5964096
discount	.5142873	.2221522	2.32	0.021	.0774285 .9511461
dissecur	-.0047141	.143721	-0.03	0.974	-.2873393 .2779111
confid	-.258765	.1419739	-1.82	0.069	-.5379545 .0204245
costs	-.2371547	.145505	-1.63	0.104	-.5232881 .0489787
maccept	.1111457	.1667572	0.67	0.506	-.2167797 .4390711
poorint	-.1755877	.1870771	-0.94	0.349	-.5434721 .1922966
lackit	-.1893688	.235916	-0.80	0.423	-.6532939 .2745564
disapcash	.0329521	.0611326	0.54	0.590	-.0872642 .1531685
_cons	2.396307	.3180998	7.53	0.000	1.770768 3.021845

Source	SS	df	MS	Number of obs =	380
Model	14.9312716	4	3.7328179	F( 4, 375) =	2.17
Residual	645.855571	375	1.72228152	Prob > F =	0.0721
				R-squared =	0.0226
				Adj R-squared =	0.0122
Total	660.786842	379	1.7435009	Root MSE =	1.3124

ebankfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.1830423	.1369238	1.34	0.182	-.0861923	.4522769
age	-.0082121	.0564163	-0.15	0.884	-.119144	.1027198
education	.1248868	.0534755	2.34	0.020	.0197373	.2300363
onhand	-.0082571	.0694538	-0.12	0.905	-.1448247	.1283106
_cons	2.541198	.2886949	8.80	0.000	1.973534	3.108862

Source	SS	df	MS	Number of obs =	380
Model	48.7054374	14	3.47895982	F( 14, 365) =	2.07
Residual	612.081405	365	1.67693536	Prob > F =	0.0126
				R-squared =	0.0737
				Adj R-squared =	0.0382
Total	660.786842	379	1.7435009	Root MSE =	1.295

ebankfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.1154009	.1368485	0.84	0.400	-.1537096	.3845113
age	-.0226021	.0584382	-0.39	0.699	-.13752	.0923157
education	.1147267	.0536499	2.14	0.033	.0092249	.2202285
conv	.1376998	.1536889	0.90	0.371	-.164527	.4399266
easytrack	.1083828	.1423169	0.76	0.447	-.1714811	.3882467
advsecur	.3423926	.1406091	2.44	0.015	.065887	.6188982
discount	.5165023	.2219887	2.33	0.021	.0799649	.9530397
dissecur	.0004043	.1439656	0.00	0.998	-.2827018	.2835103
confid	-.2666876	.1417466	-1.88	0.061	-.5454301	.0120548
costs	-.2489513	.14511	-1.72	0.087	-.5343078	.0364052
maccept	.1154281	.1668704	0.69	0.490	-.2127199	.4435761
poorint	-.1756061	.1870844	-0.94	0.349	-.5435048	.1922925
lackit	-.1938805	.236245	-0.82	0.412	-.6584527	.2706917
onhand	.0362584	.0707286	0.51	0.609	-.1028283	.1753451
_cons	2.371288	.3446538	6.88	0.000	1.693531	3.049044

## PayPal

Source	SS	df	MS	Number of obs =	380
Model	5.54715905	3	1.84905302	F( 3, 376) =	2.15
Residual	322.873894	376	.858707164	Prob > F =	0.0931
				R-squared =	0.0169
				Adj R-squared =	0.0090
Total	328.421053	379	.866546313	Root MSE =	.92666

paypalfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1158925	.0966244	1.20	0.231	-.0740993 .3058843
age	.022725	.0360726	0.63	0.529	-.0482044 .0936543
education	.0728788	.0377568	1.93	0.054	-.0013621 .1471198
_cons	1.265002	.1672995	7.56	0.000	.9360421 1.593962

Source	SS	df	MS	Number of obs =	380
Model	21.1782012	13	1.6290924	F( 13, 366) =	1.94
Residual	307.242851	366	.839461343	Prob > F =	0.0248
				R-squared =	0.0645
				Adj R-squared =	0.0313
Total	328.421053	379	.866546313	Root MSE =	.91622

paypalfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1065162	.0967131	1.10	0.271	-.0836668 .2966993
age	.0339808	.0373263	0.91	0.363	-.0394201 .1073816
education	.0636911	.0379584	1.68	0.094	-.0109528 .138335
conv	.063566	.1075059	0.59	0.555	-.1478408 .2749728
easytrack	.0074329	.1006663	0.07	0.941	-.1905241 .2053899
advsecur	.2227095	.0983912	2.26	0.024	.0292264 .4161925
discount	-.0745974	.156948	-0.48	0.635	-.3832304 .2340357
dissecur	-.0313378	.1016848	-0.31	0.758	-.2312975 .1686219
confid	-.1422303	.10022	-1.42	0.157	-.3393095 .054849
costs	-.0730419	.102491	-0.71	0.477	-.274587 .1285032
maccept	.2265734	.1179813	1.92	0.056	-.0054329 .4585796
poorint	.1098716	.1323641	0.83	0.407	-.150418 .3701612
lackit	.0629175	.1669002	0.38	0.706	-.2652862 .3911212
_cons	1.155501	.2052134	5.63	0.000	.7519558 1.559046

Source	SS	df	MS	Number of obs =	380
Model	17.862858	4	4.4657145	F( 4, 375) =	5.39
Residual	310.558195	375	.828155186	Prob > F =	0.0003
				R-squared =	0.0544
				Adj R-squared =	0.0443
Total	328.421053	379	.866546313	Root MSE =	.91003

paypalfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.1020819	.0949575	1.08	0.283	-.0846339 .2887977
age	.0565656	.0364958	1.55	0.122	-.0151965 .1283277
education	.0627038	.0371728	1.69	0.092	-.0103895 .135797
awareapps	.38923	.1009329	3.86	0.000	.1907647 .5876953
_cons	.9766376	.1805128	5.41	0.000	.6216934 1.331582

Source	SS	df	MS	Number of obs =	380
Model	30.667504	14	2.190536	F( 14, 365) =	2.69
Residual	297.753549	365	.815763147	Prob > F =	0.0009
				R-squared =	0.0934
				Adj R-squared =	0.0586
Total	328.421053	379	.866546313	Root MSE =	.9032

paypalfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.1024834	.0953455	1.07	0.283	-.0850121	.289979
age	.0598615	.0375699	1.59	0.112	-.0140192	.1337422
education	.0564454	.037479	1.51	0.133	-.0172565	.1301473
conv	.0332538	.1063496	0.31	0.755	-.175881	.2423886
easytrack	-.0240313	.0996631	-0.24	0.810	-.2200173	.1719547
advsecur	.2154744	.0970157	2.22	0.027	.0246946	.4062542
discount	-.1050653	.1549745	-0.68	0.498	-.4098203	.1996896
dissecur	-.0420734	.1002886	-0.42	0.675	-.2392894	.1551426
confid	-.1207078	.0989966	-1.22	0.224	-.315383	.0739674
costs	-.0685825	.1010424	-0.68	0.498	-.2672809	.1301158
maccept	.1884936	.1168387	1.61	0.108	-.0412679	.4182551
poorint	.0957817	.1305478	0.73	0.464	-.1609384	.3525019
lackit	.1323079	.1657807	0.80	0.425	-.1936973	.458313
awareapps	.3527452	.1034251	3.41	0.001	.1493613	.556129
_cons	.937149	.2121847	4.42	0.000	.5198911	1.354407

Source	SS	df	MS	Number of obs =	380
Model	5.91512125	4	1.47878031	F( 4, 375) =	1.72
Residual	322.505931	375	.860015817	Prob > F =	0.1449
				R-squared =	0.0180
				Adj R-squared =	0.0075
Total	328.421053	379	.866546313	Root MSE =	.92737

paypalfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.1148203	.0967119	1.19	0.236	-.0753452	.3049858
age	.0248316	.0362435	0.69	0.494	-.0464343	.0960975
education	.0725369	.0377892	1.92	0.056	-.0017684	.1468421
disapcash	.0280234	.0428423	0.65	0.513	-.0562178	.1122647
_cons	1.203068	.1923457	6.25	0.000	.8248571	1.58128

Source	SS	df	MS	Number of obs =	380
Model	21.1783693	14	1.51274066	F( 14, 365) =	1.80
Residual	307.242683	365	.841760776	Prob > F =	0.0374
				R-squared =	0.0645
				Adj R-squared =	0.0286
Total	328.421053	379	.866546313	Root MSE =	.91748

paypalfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.1065251	.0968475	1.10	0.272	-.083924	.2969742
age	.033928	.0375632	0.90	0.367	-.0399395	.1077955
education	.0636953	.0380115	1.68	0.095	-.0110537	.1384442
conv	.0636104	.1076989	0.59	0.555	-.1481778	.2753986
easytrack	.0074434	.1008069	0.07	0.941	-.1907917	.2056786
advsecur	.2229444	.0999187	2.23	0.026	.0264558	.419433
discount	-.0744754	.1573994	-0.47	0.636	-.383999	.2350482
dissecur	-.0313229	.1018294	-0.31	0.759	-.2315688	.1689229
confid	-.1423272	.1005915	-1.41	0.158	-.3401388	.0554843
costs	-.0731797	.1030934	-0.71	0.478	-.2759112	.1295518
maccept	.226593	.1181509	1.92	0.056	-.005749	.4589351
poorint	.1098594	.1325481	0.83	0.408	-.1507944	.3705131
lackit	.0629565	.1671514	0.38	0.707	-.2657442	.3916572
disapcash	-.0006121	.0433137	-0.01	0.989	-.0857879	.0845637
_cons	1.156809	.2253803	5.13	0.000	.7136022	1.600016

Source	SS	df	MS	Number of obs =	380
Model	5.56799242	4	1.39199811	F( 4, 375) =	1.62
Residual	322.85306	375	.860941494	Prob > F =	0.1693
				R-squared =	0.0170
				Adj R-squared =	0.0065
Total	328.421053	379	.866546313	Root MSE =	.92787

paypalfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.1153689	.0968085	1.19	0.234	-.0749867	.3057245
age	.0200923	.0398877	0.50	0.615	-.0583393	.098524
education	.0729486	.0378085	1.93	0.054	-.0013948	.1472919
onhand	.0076388	.0491056	0.16	0.876	-.088918	.1041955
_cons	1.24686	.2041145	6.11	0.000	.845508	1.648213

Source	SS	df	MS	Number of obs =	380
Model	21.7752888	14	1.55537777	F( 14, 365) =	1.85
Residual	306.645764	365	.84012538	Prob > F =	0.0304
				R-squared =	0.0663
				Adj R-squared =	0.0305
Total	328.421053	379	.866546313	Root MSE =	.91658

paypalfreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.1026124	.0968621	1.06	0.290	-.0878655	.2930902
age	.0189819	.0413629	0.46	0.647	-.0623576	.1003214
education	.0635546	.0379737	1.67	0.095	-.0111201	.1382294
conv	.0773368	.1087818	0.71	0.478	-.136581	.2912545
easytrack	.005485	.1007326	0.05	0.957	-.1926042	.2035742
advsecur	.2351142	.0995239	2.36	0.019	.0394021	.4308263
discount	-.079659	.1571248	-0.51	0.612	-.3886426	.2293246
dissecur	-.0263106	.1018996	-0.26	0.796	-.2266946	.1740734
confid	-.1453754	.100329	-1.45	0.148	-.3426708	.05192
costs	-.0781389	.1027096	-0.76	0.447	-.2801158	.123838
maccept	.2303244	.1181118	1.95	0.052	-.0019405	.4625894
poorint	.1106164	.1324194	0.84	0.404	-.1497842	.3710171
lackit	.0552225	.1672155	0.33	0.741	-.2736042	.3840493
onhand	.0422042	.0500621	0.84	0.400	-.0562421	.1406506
_cons	1.04441	.2439478	4.28	0.000	.5646899	1.524129

## Mobile apps

Source	SS	df	MS	Number of obs =	380
Model	5.03210795	3	1.67736932	F( 3, 376) =	1.91
Residual	329.649471	376	.876727316	Prob > F =	0.1269
				R-squared =	0.0150
				Adj R-squared =	0.0072
Total	334.681579	379	.883064852	Root MSE =	.93634

mobilefreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.0687106	.0976329	0.70	0.482	-.1232644	.2606856
age	-.0841095	.0364491	-2.31	0.022	-.1557792	-.0124398
education	-.0002276	.0381509	-0.01	0.995	-.0752434	.0747883
_cons	1.79284	.1690458	10.61	0.000	1.460447	2.125234

Source	SS	df	MS	Number of obs =	380
Model	31.8057949	13	2.4465996	F( 13, 366) =	2.96
Residual	302.875784	366	.827529465	Prob > F =	0.0004
				R-squared =	0.0950
				Adj R-squared =	0.0629
Total	334.681579	379	.883064852	Root MSE =	.90969

mobilefreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.045852	.0960233	0.48	0.633	-.1429747	.2346786
age	-.0561732	.0370601	-1.52	0.130	-.1290506	.0167042
education	-.0244984	.0376876	-0.65	0.516	-.0986099	.049613
conv	.3499094	.1067391	3.28	0.001	.1400104	.5598083
easytrack	.2467175	.0999483	2.47	0.014	.0501724	.4432626
advsecur	.0464687	.0976895	0.48	0.635	-.1456344	.2385717
discount	.2676892	.1558286	1.72	0.087	-.0387426	.5741209
dissecur	-.0881788	.1009595	-0.87	0.383	-.2867123	.1103547
confid	-.1188052	.0995052	-1.19	0.233	-.3144788	.0768684
costs	-.1243853	.10176	-1.22	0.222	-.3244929	.0757223
maccept	.0209538	.1171398	0.18	0.858	-.2093977	.2513053
poorint	.2657843	.13142	2.02	0.044	.0073512	.5242174
lackit	-.064462	.1657098	-0.39	0.697	-.3903249	.2614008
_cons	1.52333	.2037497	7.48	0.000	1.122663	1.923997

Source	SS	df	MS	Number of obs =	380
Model	30.7876542	4	7.69691356	F( 4, 375) =	9.50
Residual	303.893925	375	.810383799	Prob > F =	0.0000
				R-squared =	0.0920
				Adj R-squared =	0.0823
Total	334.681579	379	.883064852	Root MSE =	.90021

mobilefreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.0487387	.0939331	0.52	0.604	-.1359628	.2334403
age	-.0351717	.0361021	-0.97	0.331	-.1061596	.0358162
education	-.014942	.0367718	-0.41	0.685	-.0872467	.0573628
awareapps	.5628752	.099844	5.64	0.000	.3665509	.7591996
_cons	1.375829	.1785655	7.70	0.000	1.024714	1.726945



Source	SS	df	MS	Number of obs =	380
Model	49.6095284	14	3.54353774	F( 14, 365) =	4.54
Residual	285.072051	365	.781019317	Prob > F =	0.0000
				R-squared =	0.1482
				Adj R-squared =	0.1156
Total	334.681579	379	.883064852	Root MSE =	.88375

mobilefreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.040328	.093293	0.43	0.666	-.1431313 .2237874
age	-.0207233	.0367612	-0.56	0.573	-.0930136 .051567
education	-.0344231	.0366722	-0.94	0.349	-.1065384 .0376922
conv	.3083895	.1040602	2.96	0.003	.1037567 .5130223
easytrack	.2036197	.0975177	2.09	0.037	.0118527 .3953867
advsecur	.0365585	.0949272	0.39	0.700	-.1501144 .2232314
discount	.2259559	.1516384	1.49	0.137	-.0722386 .5241504
dissecur	-.1028838	.0981297	-1.05	0.295	-.2958543 .0900868
confid	-.089325	.0968655	-0.92	0.357	-.2798094 .1011594
costs	-.1182771	.0988673	-1.20	0.232	-.3126981 .0761439
maccept	-.0312055	.1143235	-0.27	0.785	-.256021 .1936099
poorint	.2464849	.1277375	1.93	0.054	-.0047089 .4976786
lackit	.0305848	.1622119	0.19	0.851	-.2884025 .3495721
awareapps	.4831694	.1011987	4.77	0.000	.2841638 .6821751
_cons	1.224244	.207617	5.90	0.000	.8159684 1.63252

Source	SS	df	MS	Number of obs =	380
Model	15.1699114	4	3.79247784	F( 4, 375) =	4.45
Residual	319.511668	375	.852031114	Prob > F =	0.0016
				R-squared =	0.0453
				Adj R-squared =	0.0351
Total	334.681579	379	.883064852	Root MSE =	.92306

mobilefreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.0630826	.0962619	0.66	0.513	-.1261981 .2523633
age	-.073052	.0360748	-2.03	0.044	-.1439863 -.0021177
education	-.0020225	.0376133	-0.05	0.957	-.075982 .071937
disapcash	.1470928	.042643	3.45	0.001	.0632436 .2309421
_cons	1.467756	.1914507	7.67	0.000	1.091304 1.844207

Source	SS	df	MS	Number of obs =	380
Model	39.241917	14	2.80299407	F( 14, 365) =	3.46
Residual	295.439662	365	.809423731	Prob > F =	0.0000
				R-squared =	0.1173
				Adj R-squared =	0.0834
Total	334.681579	379	.883064852	Root MSE =	.89968

mobilefreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
gender	.0439901	.094969	0.46	0.643	-.142765 .2307453
age	-.0450809	.0368346	-1.22	0.222	-.1175156 .0273539
education	-.0253739	.0372742	-0.68	0.496	-.098673 .0479252
conv	.3405685	.10561	3.22	0.001	.1328881 .5482488
easytrack	.2445031	.0988516	2.47	0.014	.050113 .4388933
advsecur	-.0029448	.0979807	-0.03	0.976	-.1956222 .1897327
discount	.2420465	.1543465	1.57	0.118	-.0614735 .5455666
dissecur	-.0913021	.0998543	-0.91	0.361	-.287664 .1050598
confid	-.0984094	.0986404	-1.00	0.319	-.2923842 .0955654
costs	-.0954059	.1010938	-0.94	0.346	-.2942052 .1033934
maccept	.0168134	.1158593	0.15	0.885	-.211022 .2446489
poorint	.268356	.1299772	2.06	0.040	.012758 .5239541
lackit	-.0726631	.1639093	-0.44	0.658	-.3949883 .2496621
disapcash	.1287374	.0424736	3.03	0.003	.0452136 .2122611
_cons	1.248205	.2210088	5.65	0.000	.8135947 1.682816

Source	SS	df	MS	Number of obs =	380
Model	10.7646028	4	2.69115071	F( 4, 375) =	3.12
Residual	323.916976	375	.863778603	Prob > F =	0.0153
				R-squared =	0.0322
				Adj R-squared =	0.0218
Total	334.681579	379	.883064852	Root MSE =	.9294

mobilefreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.077396	.0969679	0.80	0.425	-.113273	.268065
age	-.0404399	.0399534	-1.01	0.312	-.1190006	.0381209
education	-.0013843	.0378708	-0.04	0.971	-.07585	.0730815
onhand	-.1267114	.0491864	-2.58	0.010	-.2234271	-.0299957
_cons	2.093771	.2044505	10.24	0.000	1.691758	2.495784

Source	SS	df	MS	Number of obs =	380
Model	35.1110242	14	2.5079303	F( 14, 365) =	3.06
Residual	299.570555	365	.820741246	Prob > F =	0.0002
				R-squared =	0.1049
				Adj R-squared =	0.0706
Total	334.681579	379	.883064852	Root MSE =	.90595

mobilefreq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gender	.0550369	.0957381	0.57	0.566	-.1332306	.2433045
age	-.0208842	.0408829	-0.51	0.610	-.1012798	.0595114
education	-.0241774	.0375331	-0.64	0.520	-.0979856	.0496309
conv	.3175098	.1075195	2.95	0.003	.1060743	.5289453
easytrack	.2513005	.0995638	2.52	0.012	.0555099	.4470911
advsecur	.017283	.098369	0.18	0.861	-.1761581	.2107242
discount	.2795982	.1553016	1.80	0.073	-.0258	.5849963
dissecur	-.1000066	.1007172	-0.99	0.321	-.2980654	.0980522
confid	-.1114054	.0991648	-1.12	0.262	-.3064114	.0836006
costs	-.1123932	.1015178	-1.11	0.269	-.3120264	.0872399
maccept	.0121283	.1167412	0.10	0.917	-.2174415	.2416981
poorint	.264032	.1308828	2.02	0.044	.0066529	.521411
lackit	-.0463574	.1652752	-0.28	0.779	-.3713685	.2786537
onhand	-.0992974	.0494812	-2.01	0.046	-.1966014	-.0019934
_cons	1.784704	.2411171	7.40	0.000	1.310551	2.258857