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**Consumer behaviour
analysis of the use of cash
and cashless instruments
in the Veneto region**

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CONCLUSION

INTRODUCTION

The topic of plastic currency and the use of non-physical money has become more and more relevant in the last decade, especially considering that the most recent trends of development in technology and the exponential growth of the degree of interconnectivity, that can be noticed among different agents on the market, keep on increasing the pace of the evolution of consumers' payment practices. Considering the phenomenon of globalization, solutions implementing such tools will soon turn into a necessity for our lives and are not going to be considered just as an instrument that can offer potentially some advantages in the future.

Several countries in the developed world have already shifted gradually towards economic systems based on this type of currency rather than relying only on the conventional tools of payment, such as cash money and paper payment instruments in general. The evolution of the way in which the States see the potential of these new options has begun for several reasons: a cashless payment system allows faster movements of big amounts of wealth, the transactions of these resources take place in protected environments where sophisticated tools can allow a qualified personnel to follow the surveillance of these transfers with a constant control. Furthermore cashless technologies grant the possibility to identify univocally the receiver and the sender in some cases, favouring the institutions in their tasks aimed to maintain control of the individuals performing these transfers, consequently lowering the risks of fraud, use of black money and limiting in general the insurgence of a parallel economy, which can weigh down the one that the central State can monitor and manage directly and appropriately. For all of these reasons, the institutions in general see the evolution of the payment practices with a positive outlook; in particular, as a consequence to all the advantages discussed above, States can map, collect and manage the resources of their countries in an easier and more efficient way.

When the same topic is proposed to consumers however, the perception of the new payment tools changes. Some citizens share the optimism and the positive attitude towards the introduction of these instruments and approve the efforts made by their governments to increase the presence of the new payment options in most industries, but others feel conflicted emotions regarding the use of the cashless payment tools, or in some cases are openly opposed to the idea of changing their paying habits and are afraid of losing direct control over their wealth. As a result, in some countries the transition to a cashless payment system happened smoothly and with consistency, while in other nations the reliance on traditional means of payment remains dominant to this day.

In particular this thesis is going to focus on the Italian approach to this situation since the transition towards a cashless economy has been one of the goals that the Italian State wishes to accomplish, due to the many advantages that would come from the implementation of the new cashless technologies in a consistent course of action.

The Italian market however has shown to be more adverse compared to other economies, in the European Union or in the western world in general, when faced with the prospect of significantly changing its payment system. The lack of constancy regarding the

endeavours necessary to overcome the initial risks and costs connected with the adoption of these tools, has pushed several Italian economists to encourage the introduction of national policies aimed to increase the Italian consumers' reliance on cash-less tools or e-cash solutions . One of the Italian economists who advocates strongly in favour of this transition is Carlo Cottarelli, who tackled the causes, and the consequences, of the reluctance that the Italian country has shown when it has to implement changes to its economic system aimed to spread further the use of cashless payment instruments. In his book "*I sette peccati capitali dell'economia italiana*"(2018) published by Feltrinelli, the author was able to link the implementation issues of a fully functioning cashless payment system to two different topics that constitute the first two negative elements and practices that he considered among the seven sins that currently plague the Italian economic system, which are tax evasion and the high relative weight that the parallel economy has over the Italian GDP.

The relevance of the topic of implementation of cashless payment systems has consequently important repercussions on the Italian consumers' lives. Even though Italian consumers have shown to be resistant to the idea of change, the world around them has already started to introduce these measures with important successes, impacting indirectly their lives in the process. For example the competitiveness of small and medium Italian enterprises is affected by this reluctant behaviour; since the practice to pay with the new tools is not shared by all consumers, the costs related to the commissions that business owners have to pay to the credit institutions that manage the cashless operations have remained too high to be sustained by a great amount of businesses. The commission costs are in fact high enough so that business owners prefer to be paid in cash, unless the value of the purchases is quite relevant. Consequently, the Italian consumers are not as used to rely on e-cash for their everyday payments as other foreign consumers from the western world and their perception of cashless tools is affected negatively, creating a vicious cycle.

This thesis aims to discuss the several reasons why the transition to a cashless payment system can be more difficult in some countries compared to others, considering the analysis of the advantages and the challenges that the States have to face in order to implement the policies aimed to obtain this transformation and also by studying which characteristics of the people living in a nation can give a substantial advantage when dealing with such transformations, focusing in particular on the Italian current situation.

The first chapter of this thesis is going to focus on a comparison between the evolution of the cashless payment systems in the American market and the European market through the use of secondary sources of information, in the form of scientific papers, produced by authoritative institutions, such as the European Central Bank and the Federal Central Bank of the United States of America, able to monitor the transformations that take place in the developed countries. These documents will provide information regarding the point of view of the institutions about the effects that the introduction of cashless payment tools has produced in the recent years.

The second chapter is going to focus, instead, on the comprehension of the consumers' point of view and the ways in which the States, and the institutions in general, could improve their evaluation methods in order to understand the importance of the study of consumer behaviour and the role played by consumers' habits when the citizens interact with the new payment options. This section is going to base its conclusions on a collection of scientific papers published by smaller teams of research which offer the direct point of view of the consumers. The papers analysed in this chapter were published in India and therefore they offer interesting insights on the strategies available to favour the implementation of the cashless payment tools in developing countries, considering not only the strictly economic factors of the population but also the perceived advantages and the perceived risks that affect the consumers' choices.

In the third chapter there is going to be the description of the process designed to gather a primary source of information, necessary for a quantitative study, in the form of a questionnaire submitted directly to a sample of possible cashless tools users in order to build an analysis of the consumers' perception about the use of such tools. The sample obtained in this way is going to be divided according to a design aimed to identify the most important classifications that can be seen in the elements that compose the final sample.

Finally, in the fourth chapter, there is going to be the actual quantitative analysis of the data gathered through the submission of the questionnaire; the research process will combine the approach focused on the study of economic variables, proposed by the institutions discussed in the first chapter, and the methodology aimed to understand the behavioural and personal characteristics of the population that affect the consumers' decision making processes, following the examples that are going to be discussed in the second chapter.

CHAPTER 1: COMPARISON OF THE USE OF CASH AMONG DIFFERENT COUNTRIES

Summary:

1 Introduction 1.1 Differences in the approach of research among the papers 1.2 General comparison between the United States of America and the euro area countries 1.3 The evolution of the use of payment tools in the American study 1.4 Adoption rates of the payment tools in the American study 1.5 Incidence of use of the payment tools in the American study 1.6 American customers' ranking of the payment tools 1.7 The study of the euro area countries 1.8 Characteristics of the sampling process of the ECB study 1.9 Differences among the euro area countries 1.10 Role played by the customers' habits in the European study 1.11 Comparison of the use of cash as a wealth storage mechanism 1.12 The Italian situation in detail

1 Introduction

In order to understand why and how different countries show such a great degree of variation regarding the adaptability demonstrated when switching from a cash based economic system to a cashless system, it is important to present statistical and quantitative evidence of the different situations alongside examples representative of the wide range of countries present in the world. If the goal is to obtain a truly comprehensive overview of this process, it is necessary to proceed by analysing different entities that have been involved in the transformation to cashless economies; at the moment some interesting examples can be identified as the United States of America and the European Union as, at the present day, they are the two most developed markets and have been influenced heavily by the new cashless technologies available. Other examples that can provide some interesting insights for this topic can be the countries characterized by the presence of emerging markets, a valid example of this category is the Indian economy. Finally, for the purposes of this research the Italian market represents the most important area that needs to be observed carefully.

1.1 Differences in the approach of research among the papers

Since the information required to produce a coherent and reliable summary for this topic has to be representative of entire populations, usually the samples analysed need to collect thousands of answers and processing this great amount of data is hard for most teams of research; due to this problem during the last decades several institutions, such as the European Central Bank and the Federal Reserve, have started to collect ad process data regarding the way in which the consumers manage their wealth and, in particular, which forms of payment tools are the most frequently used in the markets in which they operate. In some specific cases, such as in the Indian study that is going to be analysed in the following chapter, smaller samples were considered fit for this type of analysis.

Usually these projects can be managed either by submitting a questionnaire to the sample of respondents or by collecting a diary of the respondents' variations of wealth, in the latter case since the data is processed by banks or other institutions usually these same entities produce the study. In both cases the participation to the process is voluntary since this type of information is protected by privacy agreements between the parties involved. Sometimes, such as the case of the Federal Reserve, respondents can be encouraged through a reward that comes in the form of a payment, in the case of the study analysed

in this thesis the reward was designed to foster a good level of completion of the questionnaires and to encourage the submission of information superior in quality to the institution through an increase of the amount of the reward¹. The studies that are going to be compared below are for the United States of America, a paper written by Greene and Stavins (2018), together with a paper written by Foster et al. (2018), both published by the Federal Bank Reserve and, for the euro area, a paper written by Esselink and Hernández (2016), published by the European Central Bank.

First of all, in order to compare the documents cited above, it is necessary to establish a common ground on which the comparison is going to be conducted moving forward. It is important to clarify the differences that are going to affect the analysis, since the two studies dealt with two entities that, due to their diverse nature, forced some variations in the research process: the American study of 2018 is the result of a collaboration between the Federal Reserve banks of Atlanta, Boston, Richmond and San Francisco and it is a project that started in 2009 with the goal of reporting the wealth management habits of the U.S. customers². It is composed by two different papers, the first one is the “*Diary of consumers’ payment choice*” by Claire Greene and Joanna Stavins, which contains the recollection of data from the daily records of the transactions that involved the bank accounts held by the customers of the banks that produced the document, the second document is the “*Survey of consumers’ payment choice*” written by Kevin Foster, Claire Greene and Joanna Stavins; differently from the former part of the analysis, this study used the recall method as it relied on the information gathered through a questionnaire submitted to the respondents, without actual data from the consumers’ accounts³. These two papers alone cannot be compared directly since their results have been obtained through different methods but, together, they can provide an accurate representation of the situation of the American market in 2018. The research process for these reports has been repeated every year since 2009, so it is also possible to obtain an overview of the subtle changes in the consumers’ behaviour alongside a consistent and reliable interpretation of the data on a yearly basis⁴.

The other document that is going to be used to explore the issue of the adoption of cashless instruments is the study “*The use of cash by households in the euro area*”, written by Henk Esselink and Lola Hernández for the ECB in 2016; this paper is the result of an analysis promoted by the European Central Bank that maintains the same goals of the American study but applies a different frequency between each data collection, as the

¹ C. Greene, J. Stavins, *The 2018 Diary of Consumer Payment Choice*, 2018 p.13, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/diary-of-consumer-payment-choice/2018/2018-diary-of-consumer-payment-choice.pdf>

² K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.3, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

³ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.4, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

⁴ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.4, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

previous version of the European report was released in 2008. Furthermore, while the U.S. study considers all the American consumers that are clients of the banks fostering the research the European study decided to study the transactions taking place in the point of sale with a particular focus on the habits of the consumers⁵. The latter paper had to deal also with the euro area (Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxemburg, Netherlands, Portugal, Spain, Greece, Slovenia, Cyprus, Malta, Slovakia, Estonia, Latvia, Lithuania) which comprehends the 19 different countries that adopted the euro and had to provide information not only on a general level but also specific insights for each State; in order to maintain the central goal of analysing the consumers' habits the researchers had to apply far more restricting parameters to consider the data reliable and consistent with the scope it pursued. For example, the transactions considered by the ECB study were collected only if the consumer was a resident in the euro area State in which the payment took place, therefore eliminating tourism and particular situations from the final sample⁶.

The studies cited above had also considerably different sample sizes with the American papers considering two different samples, 2873 for the diary and 3153 for the survey, while the European document collected information from 65,281 individuals. This wide difference in sample sizes could be linked also with the restrictions applied in the parameters for the choice of eligible respondents; since the U.S. paper focuses on the clients of the banks involved, the candidate for the research had to be an adult (18 or more years old)⁷. The ECB study collected information from the day to day situation of a common transaction, mostly a good candidate had to be considered legally adult in this case as well (at least 18 years old) with the notable exception of Netherlands which collected information from respondents that were 12 years old or older⁸.

1.2 General comparison between the United States of America and the euro area countries

For all of the reasons stated above the most reliable measurements are going to be the relative shares of respondents rather than their absolute number; it is also important to point out that the comparison is not going to consider the adjustment for the inflation on the absolute values reported in the following analyses. The two documents provide a general overview of the shares representing the relative use of cash and cashless tools and the results begin to diverge from the start; Greene's and Stavins' paper (2018) registered that the American consumers used e-cash more in 2018 than in previous years, surpassing the percentage of use of cash for the first time as traditional tools had always been the

⁵ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.3, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁶ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.9, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁷ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.9, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁸ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.9, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

first choice before⁹. On the other hand, the study conducted by Esselink and Hernández (2016) confirms that cash was still the dominant tool over all the others in 2016. These conclusions have been drawn by considering first the share of the total number of transactions registered, divided by observing which of the several payment tools was used and later by quantifying the share of the total value, in dollars for the U.S. consumers and in euros for the European ones, that was ascribed to each payment tool. Regarding the payment tools considered, there are some instruments that are present only in one of the two studies and therefore they are not going to be compared but only cited, to maintain the explanation as complete as possible; for example the U.S. studies focused on the general categories of payment tools rather than on some specific instruments and therefore money orders and other bank-related services appear, such as BANP (Bank Account Number Payment) and OBBP (Online Banking Bill Payment). The European study decided to concentrate on the analysis of the interactions that take place at the POS (Point of Sale), resulting in the exclusion of the previously cited banking operations from the data recollection process and including other options such as contactless payments.

1.3 The evolution of the use of payment tools in the American study

Starting from the analysis of the paper by Greene and Stavins, data show that in 2018 the total number of payments was composed mostly by three tools in particular: debit cards presented the highest share reaching 28% closely followed by cash which hovered around 26% and at the third spot came credit cards which were used in 23% of the cases¹⁰. These three tools altogether represented already 75% of the total number of payments and the remaining quarter was composed of transactions managed through various means like prepaid cards, banking services such as BANP and other similar operations, checks and money orders. In the ECB study by Esselink and Hernández instead, cash remained the prominent option being involved in 79% of the total number of transactions while the category of cards barely reached 19% of the transactions¹¹. If instead the discussion is focused on the value exchanged through the various means used to transfer wealth, the results showed that the general trend, according to which the share of value managed with cards was growing faster than the share of cash payments, remained the same in both cases. However, the data shows that there are significant differences between the two markets even though they both were changing in the same direction; the American consumers managed 36% of the value transferred through cards, be it debit or credit, while cash was used barely for the transfer of 6% of the total value¹². In the euro area market instead, cards were used for 39% of the total value and cash remained the

⁹ C. Greene, J. Stavins, *The 2018 Diary of Consumer Payment Choice*, 2018 p.4, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/diary-of-consumer-payment-choice/2018/2018-diary-of-consumer-payment-choice.pdf>

¹⁰ C. Greene, J. Stavins, *The 2018 Diary of Consumer Payment Choice*, 2018 p.4, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/diary-of-consumer-payment-choice/2018/2018-diary-of-consumer-payment-choice.pdf>

¹¹ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.18, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

¹² C. Greene, J. Stavins, *The 2018 Diary of Consumer Payment Choice*, 2018 p.4, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/diary-of-consumer-payment-choice/2018/2018-diary-of-consumer-payment-choice.pdf>

dominant choice, being used for 54% of the total value transferred¹³. These insights would already be enough to show that not all markets are approaching the shift towards e-cash in the same way and at the same degree, however, in order to create a theory about the reasons that influence the choices of the consumers regarding the adoption of these new tools, it is necessary to analyse the problem to a deeper level.

The insights from Greene and Stavins (2018) paper make it possible to compare the significant changes in the U.S. consumer behaviour that took place between 2017 and 2018. In particular, the analysis focused on the variation between the average values and the average volume of payments that were registered between 2017 and 2018. Since all the results of this document are referred to the average values of the two main variables studied, the researchers chose to express the variation in absolute terms rather than in the form of percentages.

The results of this analysis show that in 2018 the average volume of the payments changed significantly compared to the previous year; in particular, paper instruments, such as cash and checks, showed a slight decline as their volume lost 1,2 and 0,2 instances of use on a monthly basis respectively. On the other hand, cards were used more often as debit cards gained 1,2 payments per month, credit cards gained 1,3 per month and prepaid cards gained 0,3 per month¹⁴. The same process revealed that the electronic services cited above such as BANP and OBBP gained traction as well, growing by 0,3 and 0,6 units, respectively¹⁵. These results alone are not sufficient to explain whether the change between 2017 and 2018 was statistically significant. In order to assess this issue, the researchers evaluated the 95 percent confidence intervals of the number of payments and obtained the numerical results discussed previously as point estimates. In the end, only the changes in use of cash, debit and credit cards could be considered statistically significant according to the goal of the study¹⁶.

The same process was employed to analyse the issue of the variation of the average values of payments. In this case the changes between 2017 and 2018 were more diverse in nature as within the same category of payment tool it was possible to see some instruments increasing their average value much more than the other instruments of the same category, while in the case of the category of paper instruments some tools showed opposite trends. The average value of cash transactions, for example, dropped by 53\$ per month while the value of checks increased slightly by 23\$. All cards saw their average value increased; in the case of debit cards the growth was remarkable as the difference from the two years

¹³ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.18, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

¹⁴ C. Greene, J. Stavins, *The 2018 Diary of Consumer Payment Choice*, 2018 p.7, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/diary-of-consumer-payment-choice/2018/2018-diary-of-consumer-payment-choice.pdf>

¹⁵ C. Greene, J. Stavins, *The 2018 Diary of Consumer Payment Choice*, 2018 p.7, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/diary-of-consumer-payment-choice/2018/2018-diary-of-consumer-payment-choice.pdf>

¹⁶ C. Greene, J. Stavins, *The 2018 Diary of Consumer Payment Choice*, 2018 p.7, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/diary-of-consumer-payment-choice/2018/2018-diary-of-consumer-payment-choice.pdf>

was of 128\$ on a monthly basis. The average transaction dealt with credit and prepaid cards grew as well but only by 22\$ and 33\$, respectively. Finally, regarding the electronic instruments, all the tools showed an increase in their average value with the OBBP being the tool with the highest variation of 370\$ compared to the previous year. Again, it was necessary to consider statistical significance and through the implementation of the 95 percent confidence intervals it was possible to consider only the variations in cash, debit cards and OBBP banking services¹⁷.

To complete the picture painted by the diary, the Federal Reserve published another paper written by Foster et al. in 2018. It relied on the submission of questionnaires to gather information and analyses the several aspects that concur in the creation of an exhaustive overview of this topic, such as the adoption rate of the several alternatives, the incidence of their use and their perception in the eyes of the average American consumer; differently from the diary, in this case the information is provided directly from the point of view of the respondents, as a result the insights obtained by the researchers included the subjective evaluations of the members of the sample. This is the reason why it is not possible to compare the results from the diary with the ones of the survey as the former document records the transactions directly and presents very limited connections between the data and the possible hypotheses of the behaviours that could explain them, while the survey includes in the method of analysis several aspects that deal with the perception that the respondents have regarding the different payment tools, along with the impact that different factors, such as the situation in which the transaction takes place, have on the final choice. This approach allowed a profiling of each payment instrument, presenting its core characteristics in the eyes of the sample.

1.4 Adoption rates of the payment tools in the American study

The survey starts by asking the general information regarding the use that each respondent has made of the payment tools cited previously. The main goal in this case was to evaluate the adoption rates of the most recurrent choices. The first step in order to evaluate the adoption rates, was asking to the respondents whether or not they possessed the array of tools during the year 2018 and if so which ones. After this initial screening it was already possible to compare the share of the sample which possessed each tool and whether or not there had been a significant evolution across the years. The most widespread tool was cash, which had maintained a stable adoption rate since 2009, covering virtually the whole population¹⁸. The second choice since 2015 had been debit cards, hovering around an adoption rate of 80% and maintaining a lead over checks, which instead saw a steady decline over the years, passing from covering 85% of the population to less than 80%¹⁹.

¹⁷ C. Greene, J. Stavins, *The 2018 Diary of Consumer Payment Choice*, 2018 p.8, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/diary-of-consumer-payment-choice/2018/2018-diary-of-consumer-payment-choice.pdf>

¹⁸ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.7, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

¹⁹ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.7, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

Credit cards presented a slow growth in the adoption rate almost reaching the share of checks in 2018 being adopted by 76% of the population²⁰. The most dynamic category of tools was the one of banking services; the BANP service grew steadily since 2009 and especially in 2017, when it displayed a spike in its adoption rate, passing from 60% to 70%, and the OBBP service which registered an adoption rate of roughly 50% in 2018 although it showed several fluctuations between 2009 and 2018²¹. The report remarked the evolution of the trend of adoption rate displayed by virtual currency as well, reporting that it had shown the most relevant growth in its adoption. The number of American consumers who rely on these tools was still very low, however its share had doubled, passing from only 1% of the U.S. consumers to 2% in a span of just one year, between 2017 and 2018²².

When studying the adoption rate for credit cards, however, a different approach is required as in many cases consumers reported to possess more than one credit card per person; as a matter of fact the average number of credit cards per U.S. consumer was estimated to be equal to three. Bearing in mind these considerations, the importance of credit cards as a tool for the respondents should be re-evaluated since it is possible to observe situations in which a single consumer possessed over 15 credit cards at the same time. Since mostly all the other options do not present the same issue, the adoption rate of credit cards should be adjusted.

Another way in which it is possible to analyse this topic is the division of the sample based on the bundle of tools that American consumers prefer. The most popular bundle of tools included cash, debit and credit cards, prepaid cards, paper checks and BANP. This combination gathered 14% of the whole sample size²³. It is also important to note that 37% of the sample possessed a combination of payment tools that included debit and credit cards, cash checks and BANP alongside other possibilities. In the end these four tools presented the highest adoption rate and the most widespread presence in the market.

1.5 Incidence of use of the payment tools in the American study

The next step was the quantification of the incidence with which each tool had been used. The first main finding from the analysis of the answers of the questionnaire is the fact that more than 70% of those consumers who chose to adopt a payment tool also reported that they used it, at least once, during 2018. Starting from cash, its incidence rate reached almost 90%, therefore 9 respondents out of 10 of those who adopted cash also used it, at

²⁰ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.7, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

²¹ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.7, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

²² K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.7, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

²³ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.8, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

least once during the year²⁴. Only 11% did not use cash at all through 2018; considering the long period in order to identify a trend of evolution of this phenomenon, it is possible to see that between 2015 and 2018 the share of those who did not use cash even though they adopted it had fluctuated between 13% and 11%. Therefore, the researchers concluded that the incidence of cash remained mostly stable overall in the eyes of the consumers, with a reported average share of non-users of 12% across the four-year span²⁵.

Moving to debit cards, the researchers found that the adopting consumers reported to use this tool at least once in the year in 69% of the cases, while the incidence rate for credit cards was of 66%. These insights showed a general confidence by the U.S. consumers in the use of credit and debit cards, as the adoption rate is growing steadily this trend demonstrates that cash exchanges were becoming relatively less competitive²⁶. Mostly all the other instruments show limited shifts in the incidence rate with the exception of the banking services which were growing in popularity as in the case of the OBBP (online banking bill payment) and the BANP (bank account number payment) services²⁷. These insights are in line with the results provided by the diary and therefore it can be argued that the general background of the American study is strengthened in its reliability as the results remain compatible even if the two samples for the research were different, as stated earlier.

If the focus is brought on the in-person purchases the results were even more revealing of the growing relevance of cards in the American economic system; the study registered the first time in which the use of debit cards in particular surpassed cash; the year prior, in 2017, 42% of the U.S. respondents declared to use paper tools while 57% of them reported to use cards; in 2018 instead only 37% of them relied on paper tools while 61% used cards for this type of transactions²⁸.

The report suggests that there might be a correlation between the characteristics of the situation in which the purchase or the transaction takes place and the choice of the preferred payment tool; in other words the payment choice is not going to be determined just based on the most appropriate tool, according to the amount of wealth exchanged or by the most frequent option, but also from the surrounding elements that are intrinsic to the payment situation. The paper presented two different categories to examine; the payments that take place directly between two people, defined as P2P, and those that can

²⁴ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.9, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

²⁵ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.9, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

²⁶ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.9, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

²⁷ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.9, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

²⁸ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.10, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

be considered bill payments. The results show that debit cards have been chosen most times for bill payments and were the second most used tool for paying in P2P situations²⁹. Paper payment tools in their various forms, such as cash, checks and money orders, remained the most used option in P2P payments, with cash being used by half of the sample alone. The other half of the sample was divided between all the other payment options, with the two most important categories being electronic payments and cards³⁰.

1.6 American customers' ranking of the payment tools

If instead the discussion focuses on the consumers' perception of the payment tools many aspects need to be taken into account. For example, reliability is one of the most important characteristics of a payment tool; in this particular sphere cards registered the best evaluations from the respondents in case of theft, fraud or loss. U.S. consumers rated credit cards as the safest option overall, probably due to the fact that consumers do not actually lose their wealth if the payment tool is compromised, debit cards always ranked below credit cards, probably due to the link to the actual wealth of the respondent according to the hypotheses of the researchers and, finally, prepaid card options were considered to be the least safe option along with cash, therefore these two instruments were placed in the lowest tier³¹.

Credit cards have received the best ratings from the consumers for several characteristics; apart from the perceived safety they are also the tool presenting the best acceptance rate, the highest convenience in their use and the easiest and most readable payment records during the 2015 to 2018 period. The only characteristic that hindered their position is linked with the high maintenance costs which caused credit cards to be considered the worst option when it comes to the combination of interest and fees connected with the use of the payment tool³².

Cash instead had been voted as the easiest mean of payment to acquire and maintain even though it had scored poorly for the aspect of payment recording; in 2018 American consumers considered it also less reliable than before, ranking it as the worst option for security³³. The researchers argue that the main conclusion that can be drawn from this survey is the fact that consumers' preferences, regarding the payment tool decisions, are resistant to change and that the importance of external factors and their impact on the

²⁹ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.14, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

³⁰ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.14, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

³¹ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.19, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

³² K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.19, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

³³ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.19, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

decision making process cannot be understated. There had been a significant but slow decrease in the use of paper instruments only from 2017 to 2018 and it cannot be ascribed only to the increasing number purchases that happened online as their share has been increasing steadily and not exponentially, since 2015. The most relevant changes revolve around the use of banking services and the spreading practice of the introduction of home banking in the country³⁴.

1.7 The study of the euro area countries

At this point it is possible to compare this picture of the situation in the U.S.A. with the one in the European continent. The most reliable source of information is the European Commission and its reports on the countries that agreed to adopt the Euro as currency. The study by Esselink and Hernández (2016), can give a comprehensive overview useful for this analysis. The study was published in 2016 and followed an approach similar to Foster et al. (2018), as it was based on a survey aimed to estimate the value and number of transactions; however in this case the analysis had taking place in POS, point of sale, in the 19 countries of the EU that had adopted the euro. The results showcase a drastically different evolution of the trend of adoption and usage of the transaction tools in Europe compared with the United States of America; cash was the most important payment tool in the POS as it was reported to be used in 79% of the total cases and it also amounted to 54% of the total value exchanged in the reported transactions. Cards in general were the second most used tool, being used in 19% of the total payment instances and amounting to 39% of the total exchanged value.

The study pointed out that it is important to stress the several differences that can be identified among the states which belong to the euro area when dealing with the assessment of the shares of cash and card payments. As an example, the results of the analysis on the number of transactions show that the southern portion of these states alongside Germany, Austria and Slovenia are still very reliant on cash exchanges amounting to 80% of the total number while the Benelux countries (Belgium, Netherlands, Luxembourg) plus Estonia and Finland there was a better balance between cash payments and other instruments in a range between 45% to 54% of the total number of transactions. By analysing the value of payments instead the Benelux countries and France relied on cash the least approaching 33% of the total volume of exchanges while countries such as Greece, Cyprus and Malta were all above the 70% as the share of wealth exchanged in cash form.

These findings can provide some insights on the macro level but it is also possible to study the population of a nation and dividing it by age groups, gender or other characteristics that were thought to be influencing the final choice and the behaviour of the respondents. The results obtained from this study show a different reality compared to the concept of gradual shift from the old physical money towards e-cash as the use of the traditional means of exchange is still firmly present in several euro area countries.

³⁴ K. Foster, C. Greene, J. Stavins, *The 2018 Survey of Consumer Payment Choice*, 2018 p.20, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2018/2018-survey-of-consumer-payment-choice.pdf>

However, similarly to the samples examined by the American study, when the single respondents were asked to assess their preferences regarding tools of transaction most of them would rank cards higher than cash although in their everyday lives the traditional means remain used more often. One of the possible explanations given by the authors of this study stems from the fact that people, when asked about their preferred tool, remember more easily the transactions that involved great sums of wealth and usually those situations are managed through cards rather than cash. Another possible correlation could be found in the expectations that people have on the acceptance rate of cards accordingly to the type of transaction they are dealing with; for example if the value of the payment is relatively low the expectation in cash reliant countries is that cards will not be accepted as often as a transaction in which a greater sum is transferred. In this case the forecast was that this notion would have changed as soon as the general infrastructure for cards would have been available and implemented by the SMEs (small and medium enterprises) over time.

Another type of payment that was considered to be a potential game changer and enter in competition with the use of cash for small transactions and that was the technology of contactless tools since this system is able to compete in the field of speed of transaction which has been considered a valuable characteristic both for cash and card enthusiasts alike.

1.8 Characteristics of the sampling process of the ECB study

The population eligible to be a part of the sample had to respect the following parameters: respondents must be citizens of the euro area countries analysed and residents in the State where they carry the transaction; for example a transaction made in France was included only if the consumer who made the transaction was French. This method of creation of the sample limits the scope of the analysis but it also provides a more focused overview about the everyday activities through the exclusion of non-residents and tourists³⁵. The study focuses on a POS (point of sale) analysis and therefore gathered information regarding those types of transaction that can be performed in a point of sale. This includes card and cash payments, paper checks, mobile payments, credit transfers and direct debits. Respondents were recruited by several different means such as through in person interviews, by phone and web-based tools and later had an interview. The data was collected over a period of eight months from October 2015 to July 2016³⁶.

In the end this process collected data of 163 billion instances in which the selected respondents exchanged something on the market. The results of the study show that , considering the euro area as a unique entity, 78.8% of the number of transactions registered were managed with cash payments amounting to circa 129 billion transactions, 124 billion were handled in a POS situation while 6 billion were P2P, handled between people. 30 billion exchanges were dealt with by using cards, therefore 19.1% of the total

³⁵ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.9, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

³⁶ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.9, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

number of payments and the remaining tools were the residual 2.1% with 3 billion transactions³⁷. Another information that can be obtained from this study is relative to the total value of wealth registered and the average value of each transaction with a certain payment tool. Cash had an average value of 12.8 euros, cards 36.9 euros and other tools 61.9 euros. By looking at the way in which the different tools divided the total value exchanged cash was still the dominant choice as it was used for 53.8% of the total value followed by cards gathering 39% and lastly came the other options collecting the remaining 7.2% of the exchanged value³⁸.

1.9 Differences among the euro area countries

The values cited above changed drastically once the single nations were considered as distinct elements. In Italy for example 86% of all Italian transactions were handled with cash for 58% of the total Italian value exchanged. In France however cash was used in 68% of all transactions but the exchanged value with this tool reached only 28% of the total amount. This simple example shows how different the situation can be when the country of residence is taken in consideration. The authors divided the 19 countries that are the object of the study in three main clusters based on their results on the reliance on cash; the first cluster is the one made up of the southern euro area countries (Portugal, Spain, Italy, Greece, Malta, Cyprus, Slovenia) alongside Germany and Austria. This group had shown the highest widespread reliance on cash for payments both in number and value, presenting an average of 80% for the share of the total number and 60% for the share of value exchanged in cash; while the share of the total number of payments is mostly consistent between the States of this cluster the same cannot be said for the share of value as the difference among the States in this group is comparatively higher than in the other clusters³⁹. For example, in Malta the share of total value exchanged through cash is 74% while in Portugal it reaches only 52%. The second cluster contains Latvia, Lithuania, Ireland and Slovakia. In this cluster the percentages of cash dominance are considerably lower than the ones in the first cluster, these countries present a share of the total number of payments dealt with cash going from 71% to 79% while the share of value ranges from 49% to 62%⁴⁰. Finally, the third cluster contains the remaining States (France, Luxembourg, Belgium, Netherlands, Estonia and Finland) which present the lowest shares of number and value managed through cash with the average share of the number of payments being around 50% and the share of value close to 33%⁴¹. The study shows that the use of payment tools at the POS differs based also on the user's personal characteristics. It has been possible to find a correlation between the choice in payment tool and the gender, age and level of education. The use of cards remained constant

³⁷ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.18, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

³⁸ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.18, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

³⁹ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.20, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁴⁰ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.20, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁴¹ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.20, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

between men and women and also for the users who were 25 years old and older⁴². Interestingly, for the young respondents (from 18 to 24 years old) and for low levels of education the use of cards declined. The data showed a positive correlation between education and the use of cards per day while the use of cash was mostly unaffected⁴³. The correlation between age and use of cards was more complicated to explain; the data was divided into five different clusters starting from the first one containing respondents with an age from 18-24, than the second cluster 25-39, the third 40-54, the fourth 55-65 and finally the last cluster 65+. The second cluster shows the highest use of cards per day 0,33 card payments while all the other clusters show a declining value. The first cluster presents the lowest number of card payments per day, at 0,24⁴⁴. It is possible to see a negative correlation between age and card use for the other clusters. Looking at the cash use accounting for the age instead it is possible to see a positive pattern⁴⁵.

By looking at the value of payments and the payment tool choice, the study shows that in all the 19 countries cash was chosen for low value payments while cards were chosen for high values; in particular, for payments of 45 euros of value or lower cash was the dominant choice, this cluster of payments collected 91% of all the recorded payments⁴⁶. Cards were the dominant tool for payments of 45 euros of higher values representing the remaining 9% of the collected payments. Even in this cluster however cash remained the second choice with a share of use hovering at 33% while cards registered a 50% share. The study points out that the number of high payments is relatively low therefore these considerations could present information with a low reliability. Looking at the number of payments and focusing on a division based on market sectors cash was always the first choice; cards are the second choice but gain particular relevance for durable goods doubling from 13% to 26% their use⁴⁷. Looking at the value exchanged and at the market sectors cash was still dominant even though to a lesser extent. Cards were the first choice not only for durable goods in this case but also for hotels and petrol stations.

1.10 Role played by the customers' habits in the European study

The study points out that the way in which people deal with recurrent payments has a strong impact on their final choice of the payment tool. Recurrent payments represent all of those expenses that people sustain repeatedly over a long period of time such as rent, utilities, subscriptions and insurance. It was shown that the payment habits were significantly different among the 19 States; for example even though in general the use of cash is limited when dealing with this type of expenses there were countries in which

⁴² H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.23, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁴³ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.23, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁴⁴ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.24, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁴⁵ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.24, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁴⁶ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.24, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁴⁷ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.24, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

a significant share of the respondents reported to pay in cash. In Greece for example 26% of rent payments were dealt with in cash while the euro area average is only 6%⁴⁸. Utility bills also present a fragmented picture as in Greece 56% of respondents reported to pay in cash and in Italy 25% said the same⁴⁹. In the end it was possible to assume that when a country has a high share of cash payments in general recurrent payments will follow accordingly.

1.11 Comparison of the use of cash as a wealth storage mechanism

Another topic that must be faced to understand the customers' habits is the amount of cash that is carried on the person and also the amount stored in the form of cash within the households. These considerations can also be useful to understand the reasons why the changes in the economic system might be different as the amounts of these sums are partially driven by the demand of cash people expect to require in their everyday life.

In order to gather information regarding this variable in the paper by Greene and Stavins (2018) the process implemented to record the data was described, and can be summarized as the collection of individual information about how much money was kept every night of the recording period; in particular, the respondents were asked to report the number of paper bills and their value in the consumer's possession. The correspondent total economic value was calculated by the researchers. The results of 2018 showed that on average consumers carried 58\$ on themselves, an amount in line with previous years; however, they also pointed out an important gap between the share of consumers who carried cash on their person and those who used cash holdings as a wealth storing mechanism as fewer U.S. consumers chose to rely also on cash as a stock of wealth, as 80% of the respondents had money in their wallets while only 32% of them held any cash elsewhere⁵⁰. For the latter category, the average amount of cash stored was 654\$ while the general average for the whole sample was 158\$⁵¹.

In the European study the practice of using cash as a way to stock wealth was believed to be another reason why the shift to cashless tools was happening very slowly, especially in some of the countries of the euro area. The euro area average share of citizens that used cash for this purpose was reported to be around 23%⁵². However, if the situation is analysed further in detail, the differences present among the different European countries are evident; while in Italy the share reached 28% of the population, in France it was

⁴⁸ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.28, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁴⁹ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.29, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁵⁰ C. Greene, J. Stavins, *The 2018 Diary of Consumer Payment Choice*, 2018 p.11, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/diary-of-consumer-payment-choice/2018/2018-diary-of-consumer-payment-choice.pdf>

⁵¹ C. Greene, J. Stavins, *The 2018 Diary of Consumer Payment Choice*, 2018 p.11, in <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/diary-of-consumer-payment-choice/2018/2018-diary-of-consumer-payment-choice.pdf>

⁵² H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.34, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

estimated to be only 15%⁵³. In some extreme cases like the ones of Slovakia and Latvia this measure was drastically higher, leading the ranking of the 19 countries with a share close to 40% of citizens⁵⁴. In the end the European study stressed that most of the 19 countries are above the euro area average, this meant that the most populated countries were less prone to this mechanism compared with the ones characterized by a smaller population. These considerations indicated the share of people who carried cash on themselves, but it did not consider the amount stored elsewhere. Even under this light the differences among the European states were shown; Austria and Greece are the leaders in value stored in cash surpassing 1000 euros per person saved in cash but overall not having as big a share as other countries did, hovering at 19%⁵⁵. The European study considered also the amount of cash that the respondents carried in 2016. The amount carried changes not only between different countries but also due to personal characteristics such as age, since for this variable the amount carried grew drastically showing a positive correlation, and gender, since for this characteristic the researchers were able to calculate that on average in the euro area males carried 12 euros more than females keeping all the other characteristics constant; interestingly the level of education was not linked with any trend in this case as the results were inconclusive⁵⁶. To explain the differences in this behaviour the researchers provided several causes such as the perceived card acceptance, the withdrawal behaviour and the feelings of security while carrying big sums of money that are at least in part linked to the culture of each State therefore differing greatly among the 19 States. Germany, Austria, Greece and Cyprus presented the highest amount of wealth carried on the person mostly hovering around 85 euros with the exception of Germany where the average was 103 euros. The lowest recordings came from France with 32 euros on average and Portugal with 29 euros. Italy was in the higher end of the spectrum with an average of 69 euros⁵⁷.

1.12 The Italian situation in detail

Focusing on the data regarding the Italian market that can be found in the paper written by Esselink and Hernández (2016), it appears clear that considering the 19 countries analysed as one single entity can be misleading. As a matter of fact, in the previous paragraphs the differences among these countries made evident the high level of variation that can be observed even among States even if they present closely connected economies. The extent to which each country has been able to move towards a cashless economy therefore needs to be evaluated also on a national level, isolating the characteristics of the analysed country from the ones of the other States.

⁵³ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.34, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁵⁴ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.34, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁵⁵ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.34, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁵⁶ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.34, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁵⁷ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.34, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

When dealing with the Italian case in particular, it is possible to see a country which has generally maintained a passive role towards the changes caused by the transformation pushed by the cashless technologies. The data regarding the Italian results in 2016 presents a picture of a country that has not been able to keep up with the euro area trends of development in many of the categories analysed previously.

By looking at the two most general indicators of the transitioning process, Italian respondents reported to manage 86% of the number of their transactions through cash and that the share of value exchanged through this tool reached 58% of the total value⁵⁸. Both of these indicators are slightly worse compared with the Euro area average which estimated respectively a share of 78,8% for the number of transactions and 53,8% for the value of transactions⁵⁹. The average value of single cash transactions in Italy was also higher than the European average; while the former value was close to 13.5 euros the latter was 12 euros⁶⁰. Data suggested that the same phenomenon, although to a lesser extent, could be observed when studying cards; for this category of tools the European average was relatively closer to the Italian average value as the former hovered around 36 euros while the latter was reported to be around 38 euros⁶¹.

When the average number of transactions in a day is considered, Italy presented the greatest differences with the other 18 countries of the euro area. Through the Italian respondents' answers, the researchers estimated that the average number of payments managed on a daily basis with cash amounted to 1.7 payments, this number might not seem so exaggerated, however, if it is compared with the euro area average of 1.2 cash payments per day the relevance of this information becomes central⁶². As a matter of fact, Italy was the worst ranking country for this category. It is also true that the amount of card payments estimated in the same way was exactly equal to the euro area average of 0.3 payments per day⁶³.

If the focus is instead brought on the perception that the Italian people had regarding cards, the European study introduced two different characteristics that could be used to assess the degree to which the cards were able to cover the population. The first element that needed to be quantified was the share of people who owned a card, be it either debit or credit, or who could have access to these tools. Mostly all the euro area countries presented satisfying shares of respondents who owned a card; even in this case though, the data gathered from the Italian respondents displayed a weaker position for their country, as Italy was placed in the second place in the group of 8 countries which

⁵⁸ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.20, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁵⁹ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.20, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁶⁰ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.21, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁶¹ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.21, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁶² H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.22, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁶³ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.22, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

presented a share of access to cards lower than the euro area average. As a matter of fact, Italy had a share of ownership and access equal to 88% while the euro area average was 93%⁶⁴.

The second element that had to be considered was the perceived acceptance rate of cards; while in this category the shares are subject to a higher level of variability, the results obtained through the answers from the Italian respondents positioned Italy in a similar position to the one occupied in the previous paragraph. The country was slightly below the average with an acceptance rate of 65% against the euro area average of 72%⁶⁵.

Finally, when considering the degree to which cash is used as a tool to preserve wealth the same distinction of cash kept on the person and cash stored elsewhere applied earlier remains and was implemented to describe the situation in Italy. Regarding the amount of cash carried on the person, the Italian average amount was 69 euros, a value close to the euro area average which amounted to 65 euros⁶⁶. The real issue captured from the analysis is the amount of cash stocked elsewhere; when asked to answer whether they resorted to use this practice, 28% of the Italian respondents reported that they used cash as a tool to preserve wealth⁶⁷. This share is significantly higher than the euro average area which is 24% instead⁶⁸. It was also possible to divide the cluster of Italian respondents who used cash in this way in five classes, accordingly to the value stored in the form of cash. This process revealed that 17% of the respondents' sub-group stocked less than 100 euros, 23% stocked an amount between 100 and 250 euros, 22% stocked an amount between 250 and 500 euros, 19% stocked an amount between 500 and 1000 euros and finally the remaining 10% stocked more than 1000 euros⁶⁹.

⁶⁴ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.32, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁶⁵ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.33, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁶⁶ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.35, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁶⁷ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.41, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁶⁸ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.41, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

⁶⁹ H. Esselink, L. Hernández, *The use of cash by households in the euro area*, 2016 p.41, in <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

CHAPTER 2: THE APPROACH OF THE DEVELOPING COUNTRIES REGARDING THE TRANSITION TOWARDS A CASHLESS SYSTEM: THE INDIAN CASE

Summary:

Introduction 2.1 The Indian consumers' perception of cashless tools 2.1.1 Division in classes of the sample and analysis of the shares 2.2 The importance of education and financial literacy for Indian consumers 2.2.1 Division in classes of the sample and analysis of the shares 2.2.2 Analysis of the associations found in the data set 2.3 The differences in awareness due to the represented population 2.3.1 Notable differences in the populations represented 2.3.2 The analysis of the patterns that are present in the data set

Introduction

In previous chapter the comparison between the American and the European economic systems was based, for the most part, on actual data on the markets themselves. The conclusions that were drawn from this analysis included only limited insights coming from the observation of the respondents' behaviour and while this process showed that the tendency of most States is to transition towards a cashless economy, the results observed are widely different. Another possible explanation of the reason why there is such a great variability in these observations can be researched in the behaviour and in the perception that the consumers have regarding the payment tools at their disposal; the economic culture and financial literacy shown by a people and other cultural factors can influence the predisposition for a country to switch to a cashless system, sometimes reinforcing the role played by the triggers caused directly by the economy but, in other cases, enacting change on their own.

An interesting new perspective on this issue can be obtained by observing the approach taken by developing countries to deal with the transformation into economies where the transactions are based on cashless payment tools. In this chapter three studies, concerning this topic, are going to be explored to provide a complete overview of the possible instruments and strategies available to a country to understand whether a quick transition towards cashless systems is feasible.

The country analysed in these three papers is India, which has been one of the countries that presented the highest economic growth in the recent years; one of the unforeseen effects of this surprising transformation has been the necessity to cope with the arise of recurrence to black money, the need to develop updated systems to collect taxes and to track the transactions. All of these negative factors, caused by to the fast expansion of the Indian productivity and the new flows of wealth that transit through its borders, are pushing many Indian researchers to study the new technologies available for a transition to a cashless system.

2.1 The Indian consumers' perception of cashless tools

The paper "*Perception and awareness of customer towards cashless transaction; a case study*" written by Dr. K.A Rajanna in 2018, offers a great example of some of the cultural elements that can influence the perception and the use of cashless tools, even when purely economic factors are not considered as the main argument. The study begins by assessing

the situation in which India found itself during 2018. India is one of the countries displaying a fast growth in terms of Gross Domestic Product GDP and wealth in general, however in 2018 less than 5% of the transactions that took place in the borders of the country were handled through cashless tools and the traditional payment methods, primarily in cash, were still the dominant choice for Indian consumers⁷⁰. This limited use of the new technologies was attributed in part to the poorly developed infrastructure for internet access, which was able to cover only a small fraction of the Indian territory, approximately 26%, and in part to the financial illiteracy that is widespread among the population⁷¹.

The research process for this study consisted in the submission of a questionnaire to a sample of 150 people to obtain primary data which has been analysed through the division of the sample in several classes according to socio-economic characteristics such as monthly income, level of education and the personal data of the respondents. The results obtained were then compared with secondary data in the form of pre-existing papers and studies related to the same topic of interest.

2.1.1 Division in classes of the sample and analysis of the shares

The sample obtained randomly presented some interesting features that need to be addressed in order to understand deeply the weight of the results that were identified as significant for the analysis; the respondents selected were mostly male as the share of female members was 28%, the sample could be categorized as representative for the younger generations as 86% of the respondents belonged in the two first clusters for age, respectively between 18 and 30 years old and between 30 and 40 years old⁷². The most important finding that the researchers were able to extract from their research process was the direct correlation between the use of cashless tools and the respondents' level of education. Another interesting conclusion that was drawn from the analysis of data was the fact that if the sample was divided according to the respondent's profession businessmen and employees, representative respectively of 42% and 34% of the sample, were the two categories most used to transactions managed through cashless tools⁷³.

The researchers also focused a section of their paper on the relevance of the sources of information that increased the respondents' awareness regarding the cashless tools available, communicating the benefits and the core characteristics of these instruments to the public. Interestingly, the traditional communication channels presented the best coverage while Internet advertisements and social media performed slightly in a worse way. As a matter of fact, while Television and News Papers were selected by all the

⁷⁰ Dr. K.A Rajanna, *Perception and awareness of customer towards cashless transaction; a case study*, 2018 p. 33, in <https://www.ijaiem.org/Volume7Issue3/IJAIEM-2018-03-11-9.pdf>

⁷¹ Dr. K.A Rajanna, *Perception and awareness of customer towards cashless transaction; a case study*, 2018 p. 35, in <https://www.ijaiem.org/Volume7Issue3/IJAIEM-2018-03-11-9.pdf>

⁷² Dr. K.A Rajanna, *Perception and awareness of customer towards cashless transaction; a case study*, 2018 p. 34, in <https://www.ijaiem.org/Volume7Issue3/IJAIEM-2018-03-11-9.pdf>

⁷³ Dr. K.A Rajanna, *Perception and awareness of customer towards cashless transaction; a case study*, 2018 p. 35, in <https://www.ijaiem.org/Volume7Issue3/IJAIEM-2018-03-11-9.pdf>

respondents, Internet advertisements were considered as a source of information by 96% of the sample and social media had been selected only by 88% of the sample⁷⁴.

The most relevant argument, regarding the respondents' perception of cashless tools, however, was the investigation of the share of the sample that was aware of the several benefits and potential problems connected with these instruments. The data showed that for the most part the respondents were aware of the positive benefits that could impact directly and immediately their personal situation; characteristics of these tools like safety, transparency, privacy and the ease to use these technologies were well known among the respondents and this phenomenon was proved by the impressive shares of awareness across the sample since for all of these attributes the share of respondents who considered to be aware was superior to 90%⁷⁵. On the other hand, when the advantage was indirect or would develop over a longer period of time the share of awareness decreased drastically. Only 60% of the sample knew of the possibility to limit the recurrence to black money through the use of cashless tools of payment, and the share respondents aware of the advantages on controlling the practice of corruption and illegal activities was even lower, reaching barely 60% of the share of the sample⁷⁶.

The sample showed an even higher level of awareness for the possible problems of cashless tools; the most relevant perceived problems, identified through the submission of the questionnaire, were the lack of financial literacy, the risks connected with cyber security, hacking problems and cybercrime, all of which were pointed out as major risks by more than 90% of the respondents⁷⁷. The second category of risks that was chosen by the sample was the fear of high costs for online transactions which reached a share of 90%.

2.2 The importance of education and financial literacy for Indian consumers

In the paper "*Consumers' perception towards cashless transactions and information security in the digital economy*" written by Dr. S. Yuvaraj and Sheila Eveline. N in 2018, the topic of customers' preferences and their perception of the cashless tools is explored even further. This study was handled in a similar way of the document cited previously; the researchers submitted a questionnaire to a sample of 160 respondents who were later divided into classes accordingly to their personal information focusing the attention also on the income and on the education level obtained by the respondents. In a following step the respondents were asked to pick their preferred choice regarding the most comfortable mean of payment and to choose among a list of possible factors the ones that proved to be the most important in shaping their preferences.

⁷⁴ Dr. K.A Rajanna, *Perception and awareness of customer towards cashless transaction; a case study*, 2018 p. 35, in <https://www.ijaiem.org/Volume7Issue3/IJAIEM-2018-03-11-9.pdf>

⁷⁵ Dr. K.A Rajanna, *Perception and awareness of customer towards cashless transaction; a case study*, 2018 p. 36, in <https://www.ijaiem.org/Volume7Issue3/IJAIEM-2018-03-11-9.pdf>

⁷⁶ Dr. K.A Rajanna, *Perception and awareness of customer towards cashless transaction; a case study*, 2018 p. 36, in <https://www.ijaiem.org/Volume7Issue3/IJAIEM-2018-03-11-9.pdf>

⁷⁷ Dr. K.A Rajanna, *Perception and awareness of customer towards cashless transaction; a case study*, 2018 p. 36, in <https://www.ijaiem.org/Volume7Issue3/IJAIEM-2018-03-11-9.pdf>

One of the first remarks that the authors of this paper point out is the importance played by the digitalisation of a society as one of the most important factors when it comes to transforming the traditional economic system into a cashless one⁷⁸. The presence in a society of a large amount of people who can have access to the internet through various means is a core necessity for any country that wishes to promote the use of these new technologies. Smart phones are appointed as the most powerful tool for the Indian people in this regard; not only because it can provide a convenient way to access internet connection but also due to its strong presence among Indian consumers. The main issue present in the country is still the limited infrastructure required to bring connection to the most rural areas of the country⁷⁹.

Another interesting insight that this study provides is the role played by the institutions and their intervention in the promotion of the cashless economy in the country. In this case the paper does not limit this consideration on one single type of institution. The private sector plays a central role as banks were starting to adopt new techniques, such as mobile banking services, and were overall improving the level of their networks through net banking facilities⁸⁰. At the same time, the endeavours of the public institutions, such as the government and public banks, can improve the integration of cashless options in the life of the consumers who rely on their services. In the specific case of the government, one of the most important areas of interest is the creation of a stable infrastructure that might enable the people living in rural areas of the country to partake in the transition⁸¹.

The major concern that remains a constant when studying the preferences of consumers in general was still the risks connected with possible breaches in the security of the devices necessary to access the cashless payment tools and overall the management of the security of the information exchanged between the consumer and the institutions that provide the cashless payment services. The level of knowledge possessed by a person, in broader terms the education level, becomes an important factor that affects the decision to use these tools. The study suggested that those who are the most acquainted with the new technologies are also the very same people who worry, in a positive way, about the safety of the information they exchange with third parties through a continuous control over their devices, both in terms of maintenance of the physical tools and the updates necessary to protect their profiles; some examples of this positive behaviour are changing their passwords periodically and keeping constant attention over their activities with third

⁷⁸ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 90, in <http://paper.researchbib.com/view/paper/195468>

⁷⁹ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 90, in <http://paper.researchbib.com/view/paper/195468>

⁸⁰ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 90, in <http://paper.researchbib.com/view/paper/195468>

⁸¹ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 90, in <http://paper.researchbib.com/view/paper/195468>

parties⁸². The study revealed that the importance of the concern for safety regarding the personal data is affected by the age of the person and the society in which that person lives. Some of the examples coming from this paper are the fact that younger generations behave more loosely with their data protection compared to the older generations and, also, typically consumers living in developed countries tend to be more concerned of the way in which their personal information is treated compared to their developing countries counterpart⁸³.

2.2.1 Division in classes of the sample and analysis of the shares

Looking at the clusters created by this study, the sample has been analysed mainly through five categories, gender, age, level of education, occupation and monthly income. From these elements the sample can be seen as representative of mostly women, as they amount almost up to 64% of the total sample, and of young generations as the first two age groups, from 18 to 30 years old and from 30 to 40 years old, combined were representing 71% of the sample⁸⁴. The level of education presented a well-rounded picture instead, due to the presence of many different options and the balance of the shares across the sample; the two most relevant categories were the respondents who obtained a diploma, representing roughly 31% of the sample, the post graduates, following at the second place with a share of 25.6%, and finally the undergraduates with a share of 21.1%⁸⁵. Looking at the occupation category, the vast majority of the sample reported to be employed, as this option gathered 86.3% of the sample. Finally, regarding the monthly income, 70% of the sample belonged to the two poorest clusters, the first one being for those who gained less than 15 thousand Indian rupees and the second one which moved between 15 thousand and 30 thousand Indian rupees per month⁸⁶.

Keeping in mind these considerations regarding the sample analysed, the question regarding the most comfortable payment tool saw at the first place credit and debit cards, chosen by almost 47% of the sample, while cash remained in the second to last place, being the most preferred choice only for 11.9% of the respondents⁸⁷. Interestingly, mobile wallets were preferred to both cash and net banking services, probably due to the strong

⁸² Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 91, in <http://paper.researchbib.com/view/paper/195468>

⁸³ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 91, in <http://paper.researchbib.com/view/paper/195468>

⁸⁴ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 92, in <http://paper.researchbib.com/view/paper/195468>

⁸⁵ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 93, in <http://paper.researchbib.com/view/paper/195468>

⁸⁶ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 92, in <http://paper.researchbib.com/view/paper/195468>

⁸⁷ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 93, in <http://paper.researchbib.com/view/paper/195468>

presence of smartphones in the country, while net banking was chosen by 17.5% of the sample mobile wallets obtained a share of 22.5%⁸⁸.

Moving to the section that analyses the core characteristics that the respondents believe are important elements in shaping their decisions towards the use of cashless solutions, the study pointed out that the most relevant characteristic is by far the privacy and the security of the service, chosen by 48.8% of the respondents⁸⁹. This concept may seem in contradiction with the perceived risks, that have been reported not only in this paper but also in the previous one, however, as long as consumers feel that their information is kept safe in their possession, the concerns revolving around the uncertainty and risk of losing said information is mitigated by the positive impact brought by the knowledge of dealing with highly skilled institutions. Immediately after safety, at the second place, convenience is the other strong characteristic that shapes the choices of the sample. On a final note, the impact on the consumers' choice produced by discounts and other financial benefits was limited as it was chosen only by 3% of the respondents as the reason to implement cashless tools in their everyday life⁹⁰.

2.2.2 Analysis of the associations found in the data set

Finally, through the implementation of the chi-square analysis, the researchers managed to obtain an idea of the associations that were present among the degree of awareness about the cashless tools core elements, that belong to the treatment of privacy and information security, and the characteristics that pertain to the consumers' personal information. The element that proved to be linked the most to the elements of the respondents' personal information is the awareness of privacy and security softwares⁹¹. Four of the main clusters used to divide the sample discussed in the previous paragraphs, the ones based on gender, age, education and income, produced significant changes in the degree of awareness to the existence of softwares able to improve the protection of personal information while it is present on the virtual market. Examples of virtuous behaviours that descend from the awareness of this issue are the use of firewalls, the possession of knowledge about the ad blocking programs and the ability to manage spy detection programs. The degree of awareness of the threats in which it is possible to incur while operating on the digital market was connected with the respondent's income level and with the obtained education level, probably because of the deeper acquaintance that wealthy and highly skilled people have with the digital market, compared to those who

⁸⁸ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 93, in <http://paper.researchbib.com/view/paper/195468>

⁸⁹ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 94, in <http://paper.researchbib.com/view/paper/195468>

⁹⁰ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 94, in <http://paper.researchbib.com/view/paper/195468>

⁹¹ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 94, in <http://paper.researchbib.com/view/paper/195468>

rely less on this tool to manage their wealth⁹². The awareness of the necessity to read the terms and conditions before installing a program or using a service present on the internet was linked with both of these personal characteristics as well⁹³.

The whole sample was mostly aware of the fundamental risks that need to be kept in mind while using cashless tools such as the use of a private internet connection rather than a public one to keep their information in a protected environment, limiting the possibility of seeing their data stolen.

2.3 The differences in awareness due to the represented population

The last paper regarding the Indian transition towards a cashless system that is going to be analysed is “*Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*” written by Richa Goel, Seema Sahai, Anita Vinaik and Vikas Garg in 2019. This study was conducted through the submission of a questionnaire to a sample of 280 respondents and it was limited to students and working professionals with the goal to understand the benefits that they perceived when using cashless options for their transactions.

The first part of the analysis consists in the creation of a general way to convey the initial situation in which the country found itself in 2019. To achieve this goal the researchers created a S.W.O.T. analysis, creating a summary of the main strengths, weaknesses, opportunities and threats that India should face when dealing with the implementation of cashless tools of payment. Starting with the strengths, the researchers focused on the strategic plan that the Indian government is implementing to reduce gradually the cash circulating in the Indian economic system and the endeavours that the institution has put to maintain its programmed schedule, an example of this commitment can be the creation, managed through the government itself, of new bank accounts in order to reach as many Indian citizens as possible⁹⁴.

Among the weaknesses identified by the study it is possible to find once again the limited infrastructure that enables only some areas of the country to access internet connection, the fact that the smartphone market is still untapped for India since even though the use of these tools is present in the whole country, the production of these devices is not managed by Indian companies therefore leaving Indian consumers bound to foreign products. In this category the dominance of cash as a transaction tool is seen negatively as the Indian people was still reliant on traditional tools to carry on their economic

⁹² Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 94, in <http://paper.researchbib.com/view/paper/195468>

⁹³ Dr. S. Yuvaraj, Sheila Eveline. N, *Consumers' perception towards cashless transactions and information security in the digital economy*, 2018 p. 94, in <http://paper.researchbib.com/view/paper/195468>

⁹⁴ Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1221, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

activity. Furthermore, the problem of financial illiteracy remained a constant weakness in the plans that aim to push a smooth and quiet transition to the new technologies⁹⁵.

In the section dedicated to the opportunities the researchers included the curbing of black money and the exertion of control over the parallel economy that is run through the use of black money, the possibility to make easier the processes of tax collection in the country and the end of the phenomenon of corruption and bribery⁹⁶.

In the last group, the one of the threats, the most important factor is the risk of loss of data and the real possibility of the insurgence of cyber-crimes which could scare off the Indian population. Another threat that cannot be overlooked is the perception of cash as the safest and quickest way to transfer wealth from person to person, which is still strongly present in the minds of the Indian consumers, alongside a common mistrust in the economy of the country which is often affected by a strong variability in its results⁹⁷.

2.3.1 Notable differences in the populations represented

The sample was divided in several clusters following a structure similar to the other two studies described previously. In this case however, the type of representation that can be obtained through this document is completely different; one example of the differences present between the first two documents and the one analysed in this paragraph, the share of working respondents is comparatively lower and for the first time the greatest part of the sample is composed by non-working people. As a matter of fact, non-workers made up almost 80% of the total sample size⁹⁸. There is a balance among male and female respondents as the share of male people that took part in the experiment is close to 55% while in the last two reports the shares associated with the variable gender tended to be more one sided⁹⁹. Even in this case the age cluster that is the most represented is the second youngest that starts from 15 to 25 years old, since the share of respondents who belong to this group alone gathers 45% of the sample. The remaining part is divided among all the other age groups, with the second most important being the one considering respondents from 25 to 35 years old which presents a share of 24%¹⁰⁰. Finally, the levels

⁹⁵ Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1221, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

⁹⁶ Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1221, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

⁹⁷ Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1221, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

⁹⁸ Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1223, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

⁹⁹ Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1223, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

¹⁰⁰ Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1223, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

of income were all well represented. The two most important clusters were the middle section considering those elements who gained between 25 and 35 thousand Indian rupees on a monthly basis, which gathered 34% of the sample, and the two poorest income groups; the first one included those respondents who gained up to 15 thousand Indian rupees and those who registered gains between 15 thousand and 25 thousand Indian rupees, representing 48% of the sample and divided equally between the two classes¹⁰¹.

2.3.2 The analysis of the patterns that are present in the data set

The researchers proceeded by testing a list of three hypotheses on the data that they gathered from the questionnaires. The first hypothesis was the lack of a significant difference between the consumers' trust and the confidence in the cashless transactions that they managed. Through the use of the regression analysis the analysts were both able to reject the null hypothesis and, therefore, it was not possible to exclude a significant difference between the levels of general consumer's trust in the cashless payment and the level of confidence displayed while using the cashless tools¹⁰².

The second hypothesis tried to analyse whether there was a correlation between the respondent's gender and the benefits gained through the use of the cashless tools of payment. In this case, still using the regression analysis, the researchers rejected the null hypothesis which stated that there was no correlation between the two parameters. This meant that gender lead indeed to different benefits while using cashless tools¹⁰³.

The third hypothesis was aimed to test whether there was a correlation between gender and the optimism towards a transition to a cashless economic system. Again, through the use of regression analysis, the researchers were not able to reject the null hypothesis and therefore it was not possible to exclude the fact that there is no significant difference in the level of optimism towards the new technologies based on the respondents' gender¹⁰⁴.

In the end this paper offers a picture of a country which still has to face several issues if its government wishes to promote and implement a solid change to its economic system. The most important lesson that can be obtained from this document is the great importance given to the consumers' education and the great risks that can arise in case of a quick and sudden shifts in the consumers' habits¹⁰⁵.

¹⁰¹ Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1223, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

¹⁰² Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1225, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

¹⁰³ Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1225, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

¹⁰⁴ Richa Goel, Seema Sahai, Anita Vinaik, Vikas Gargin, *Moving From Cash to Cashless Economy: - A Study of Consumer Perception Towards Digital Transactions*, 2019 p. 1225, in <https://scholar.google.co.in/citations?user=IQC8sUoAAAAJ>

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CHAPTER 3: DESCRIPTION OF THE SAMPLING PROCESS

Summary:

Introduction 3.1 The design of the questionnaire 3.2 The sampling process 3.3 General examples of divisions applied by other similar studies 3.4 Clustering and description of the final sample 3.4.1 Geographical concentration of the sample 3.4.2 Gender 3.4.3 Age 3.4.4 Yearly net income 3.4.5 Current occupation 3.4.6 Number of times spent abroad in a year 3.4.7 Time spent travelling abroad

Introduction

The goals of our study are the identification of which characteristics of payment are the most relevant drivers of the Italian consumers' choices when deciding whether to use traditional payment tools or the cashless currency, the investigation of possible correlations between the incidence of use of cashless instruments and the personal information, alongside the behavioural aspects, that Italian consumers have about their use in the Veneto region.

In order to build our study, it was necessary to create a questionnaire able to collect the data required to investigate the wide range of variables that were considered interesting to explain why the Italian consumers are not as reliant on cashless payment tools compared to other countries following the insights obtained from the documents discussed in the previous chapters.

3.1 The design of the questionnaire

The questionnaire was designed with the aim to collect a wide amount of answers and to maintain at the same time a good level of completeness of the information provided by the respondents; to fulfil both of these conditions the terminology used in the questionnaire was maintained as simple as possible, with the goal to allow all the recipients to follow the steps necessary to complete the obligatory fields with ease. To avoid the issues connected with the specific language used when dealing with topics such as payment options, the questions directly connected with the perceived importance of the core characteristics of cashless payment tools were comprehensive of all the different types of payment option, without focusing on one specific instrument. The questionnaire was also divided into three main sections; in the first one the questions were aimed to collect the personal information necessary to divide the sample and create clusters of elements with similar characteristics, the second section focused instead on the perception that the respondents had regarding certain values and attributes that are connected with the cashless solutions for payment and finally, in the third section, there were a couple of open questions that were considered useful to gather further insights from the respondents that might have not been considered during the initial designing phase of the questionnaire. This last section allowed to obtain a more comprehensive picture of the concepts that consumers think of when faced with this type of research.

The language adopted to create the questionnaire was Italian for two reasons; in the first place the goal of the study is to produce results that could be applicable for the analysis of the general Italian consumer. As a consequence, foreign citizens and people visiting Italy for brief periods of time were not considered as appropriate elements to include in

the final sample due to the fact that their view on the subject might have changed the overall results of the quantitative study in a significant way, the Italian respondents that were resident abroad however were considered fit for the sample as well since they spent an important portion of their life in Italy and have also experience of foreign realities to add a complete overview through their comparison. Secondly, in order to avoid the exclusion of potential respondents due to the knowledge of foreign languages the Italian language seemed to be the best choice to increase the pool of potential respondents.

3.2 The sampling process

The sampling process, consisting in the gathering of the answers that were used in the following quantitative analysis, lasted for two weeks, from the 8th of May 2020 to the 22nd of May 2020. The questionnaire was submitted through the internet in form of a link that would transport the respondent to the landing page where it was possible to complete the fields and the answers for the questions in an anonymous form. Once the questionnaire was closed, the landing page had gathered 184 answers, this amount was considered to be sufficient to proceed to the next phases of the process as the number of respondents who completed the submission of the answers was in line with the number of respondents that were reported in the studies discussed in the previous chapters.

3.3 General examples of divisions applied by other similar studies

To design the type of information needed to allow the clustering of data and the creation of several groups of similar elements from the same sample in our analysis, it was necessary to record some background information regarding the personal characteristics of the respondents. An initial structure that could have been implemented successfully were the ones observed in the paper discussed in the previous chapters. Most of the documents presented in this thesis focused the scope of their analysis strictly either on the economic information of the respondents or on their perception. Consequently, there are also many examples of different approaches to clustering accordingly to the main objective of each research process. For example, while in the paper by Esselink and Hernández (2016) the system used to decide how to divide the sample included a small amount of discriminating factors, in the papers by Dr. K.A Rajanna in (2018), by Dr. S. Yuvaraj and Sheila Eveline. N (2018) and by Richa Goel, Seema Sahai, Anita Vinaik and Vikas Garg (2019), the clustering is tackled as one of the most important parts of the development of the research process therefore leading to the inclusion of many critical factors that allow a more detailed division of the sample. In some cases, like in the American study by Foster et al. (2018) and in the paper by Greene and Stavins (2018), the creation of clusters from the sample was not seen as one of the most relevant elements of their research and, consequently, there is little interest in dividing the sample to a detailed degree.

Comparing the Indian examples to the European one, in the latter case the clustering process focuses primarily on three critical factors: the respondents' gender, their age group and the education level. This schematic division is quite effective to describe in a general way the respondent's background and at the same time it does not insert too many factors into the analysis since the European paper focuses on the comparison among

different countries rather than the different clusters of respondents. In the former case on the other hand, the Indian studies delved deeper into the specifics of their sample since it presented a limited number of elements and also because of to the national connotation of their work. As a result, the critical factors considered become more numerous; they still included gender, age groups and the education level but the researchers also added the respondent's monthly income level, the respondent's occupation and the marital status. This information allowed them to create a thorough system to divide their sample and consequently it enabled them to analyse the associations between the clusters and the awareness of the payment tool options in depth.

3.4 Clustering and description of the final sample

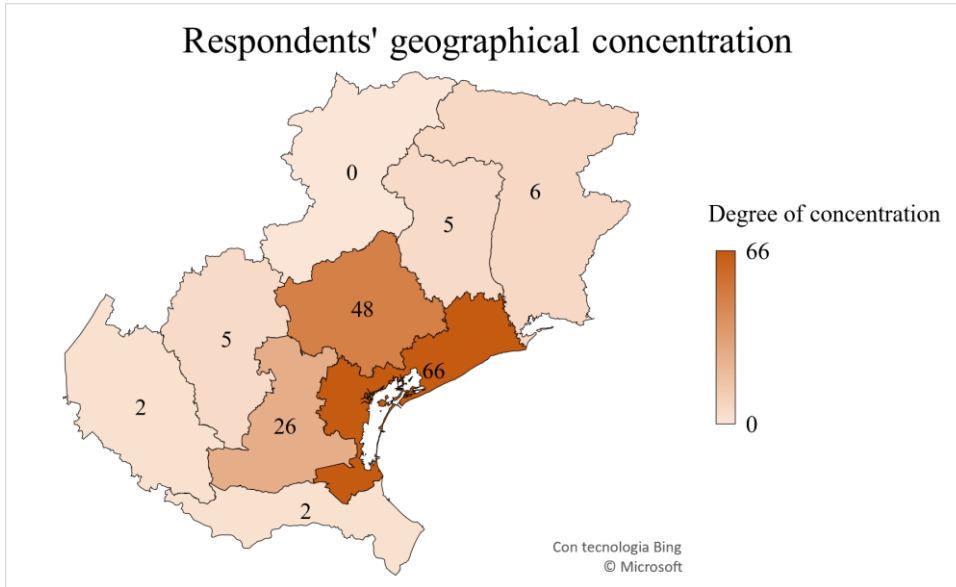
The final sample consisted of 160 answers and was representative of the six provinces of the Veneto region (Belluno, Padova, Rovigo, Treviso, Venezia, Verona, Vicenza) and of the two neighbouring provinces of Pordenone and Udine of the Friuli-Venezia Giulia region. Since the goal of this thesis is to find possible correlations among the respondents' characteristics and the use of cashless tools, the most efficient choice was to include the parameters necessary to produce a detailed clustering system that could allow a detailed division of the sample. Consequently, the most efficient method for this type of research was the one applied in the Indian studies. In this case most of the critical factors discussed previously were maintained, however, due to the current economic situation in which Italy finds itself it was not enough to rely uniquely on the information regarding the country separated from the rest of the European countries of the euro area. For this reason, the structure applied to cluster the sample utilizes not only the factors that could be considered internal to the Italian system but also the effects that derive from the perception that Italian consumers have regarding the systems implemented by other European countries, since in turn the exposure to different realities might create changes in the consumer's idea of the Italian payment system.

For these reasons the critical factors chosen to cluster the sample were: the respondent's geographical residence, the respondent's gender, the respondent's age, the respondent's income level, the respondent's current occupation, the amount of times in which the respondent is exposed to different payment systems abroad and the amount of time spent interacting with these different realities.

3.4.1 Geographical concentration of the sample

In this type of analysis it was important to understand the extent to which the sample is representative of reality; in order to produce a reliable source of information regarding the behaviour of a specific group of people it is also necessary to include the scope of the research process with precision, in order to avoid confusion. In this case the respondents' geographical origin was considered useful to tailor the initial design of our study.

Figure 1



Source: our elaboration on sample data

Considered provinces	Absolute frequency
Belluno (Veneto region)	0
Padova (Veneto region)	26
Rovigo (Veneto region)	2
Treviso (Veneto region)	48
Venezia (Veneto region)	66
Verona (Veneto region)	2
Vicenza (Veneto region)	5
Pordenone (Friuli-Venezia Giulia region)	5
Udine (Friuli-Venezia Giulia region)	6
Total number of elements	160

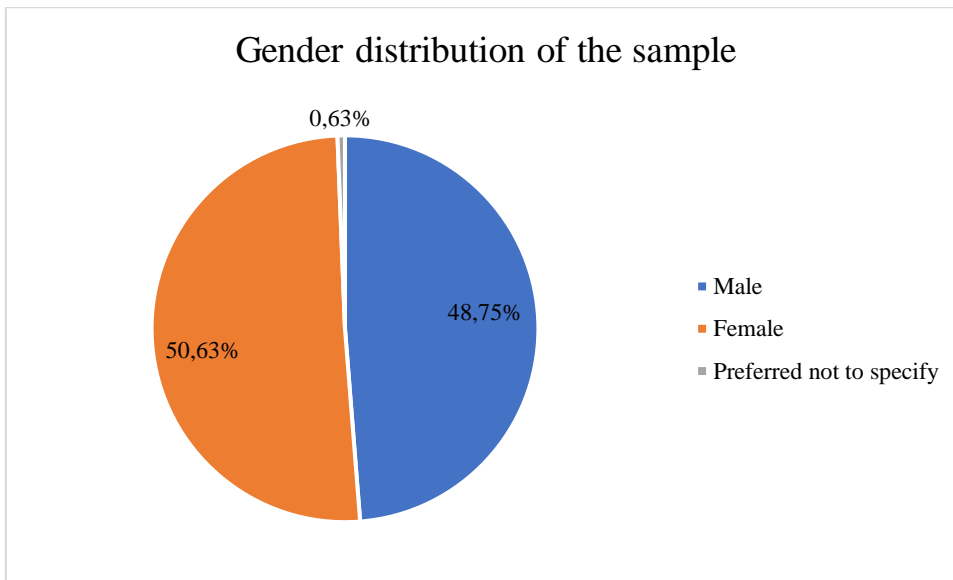
Source: our elaboration on sample data

In figure 1 it is possible to see the graphical representation of the respondents' geographical distribution. The diagram shows that out of the 160 total answers that have been analysed the vast majority is in the Treviso, Venezia and Padova provinces, amounting to 87,5% of the total sample. The remaining answers are mostly equally distributed across the remaining provinces of the Veneto region and the two provinces of Friuli-Venezia Giulia region. The only exception is the Belluno province from which no answers have been registered.

3.4.2 Gender

As it was shown in the papers discussed in the previous chapters gender is one of the factors that can play a pivotal role in the perception that people have about the use of cashless tools of payment. This phenomenon can be linked with the exposure to a certain payment tool that a person experiences in his or her own life, since the management of wealth is one of the instances where people interact the most with their resources, and due to the differentiation of roles in this area of interest between male and female users, the classification based on gender was believed to be a necessary inclusion in the analysis.

Figure 2



Source: our elaboration on sample data

Respondent's gender	Absolute frequency
Male	78
Female	81
Preferred not to specify	1
Total number of elements	160

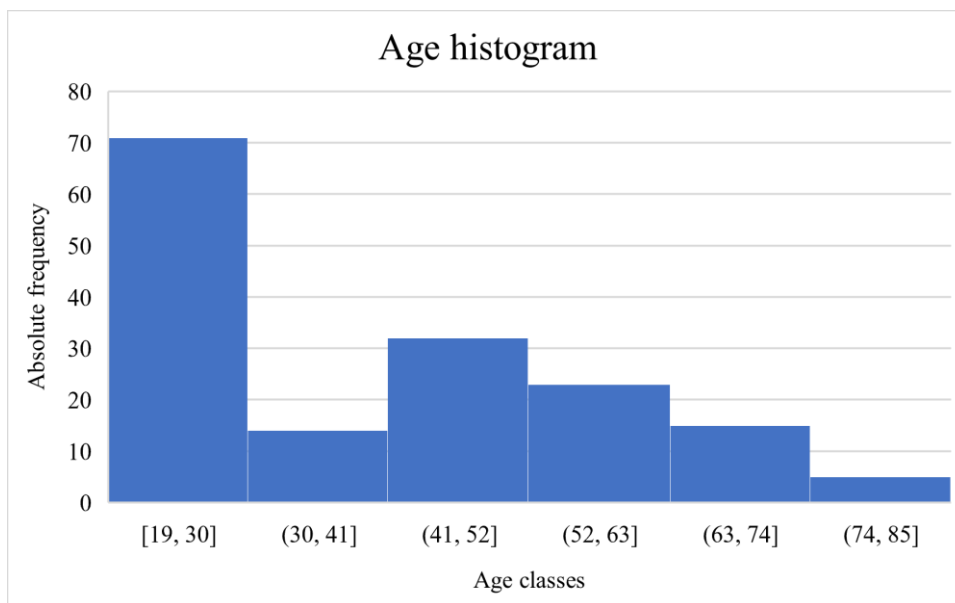
Source: our elaboration on sample data

In figure 2 it is possible to see the graphical representation of the sample clustered based on the respondents' gender. The diagram shows that the sample is representative both of male and female genders as they are almost equally distributed. In the questionnaire there was included the option to avoid specifying the gender as a courtesy for the interviewees.

3.4.3 Age

Age is one of the most important factors when analysing the behaviour of a group of people; belonging to a certain age group rather than another one is probably going to affect the perception of reality that the members of that age group have about a certain topic. In particular, due to the fast evolution of the new technologies implemented in the development of cashless payment tools a division based on age allows to compare the perception of different generations about the risks and the benefits that cashless payment tools present nowadays. The most important subject is definitely the difference in approach among older and younger generations since in many cases the opinions change drastically when considering this characteristic as a discriminating factor.

Figure 3



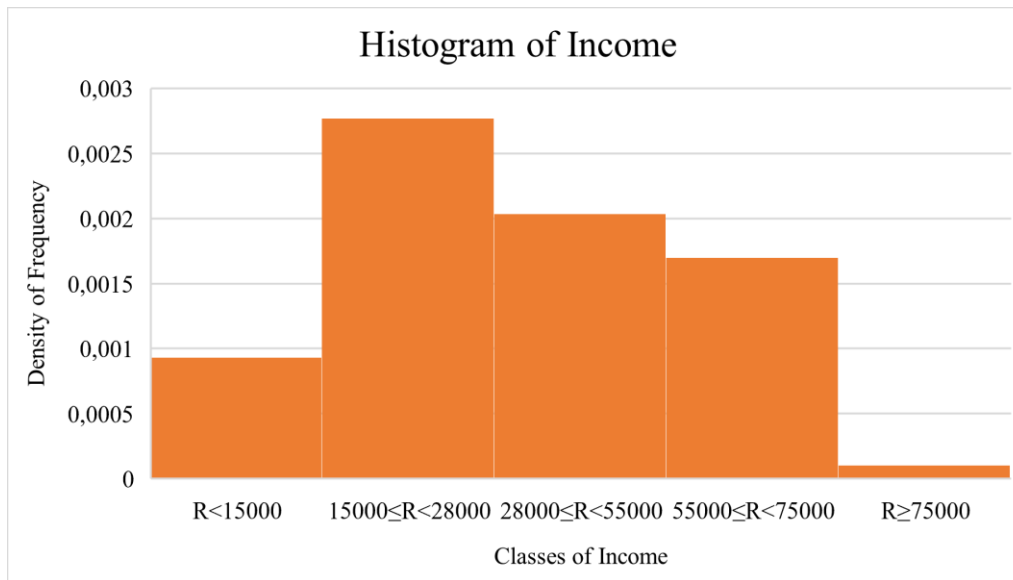
Source: our elaboration on sample data

In figure 3 it is possible to see the graphical representation of the respondents' age. For the analysis of this type of information a histogram is the most appropriate choice to understand this factor since the age can be considered a continuous variable. The sample displays an age range that goes from the youngest respondent, who was 19 years old to the oldest who was 85 years old. The age classes were generated by dividing the age range into clusters of equal dimensions, in this case each cluster contains of a range of 11 years. Notably, the most populated class is the one that goes from 19 to 30 years old, that has an absolute frequency of 70. This means that almost 44% of the respondents belong to the youngest class. However, since the remaining 56% of the sample is mostly equally distributed across all the other age classes it is possible to consider this sample representative for the scope of the analysis.

3.4.4 Yearly net income

Following the examples given by the Indian studies present in the previous chapters, the level of income that people obtain in a given period of time is an important element for this type of research. The amount of income that people have to manage affects not only the approach they have regarding the most effective allocation for their wealth but also the tools they use to transfer their resources and employ them on the market. It is also an important factor since it was connected with the practice to keep cash stored on the person or in other places as a storage mechanism, as it was discussed in the previous chapters.

Figure 4



Source: our elaboration on sample data

Classes of income	Absolute frequency	Density of frequency
R<15000	14	0,000933
15000≤R<28000	36	0,002769
28000≤R<55000	55	0,002037
55000≤R<75000	34	0,0017
R≥75000	21	0,00011
Total number of elements	160	

Source: our elaboration on sample data

In figure 4 it is possible to see a representation of the distribution of the sample elements in classes of income. The net income that the respondents earn on an annual basis was chosen as the most practical choice to create the clustering. In this case as well as in figure 3 the factor considered, in this case the income, can be seen as a continuous variable, therefore a histogram is once again the most appropriate choice to create a graphical representation. In this case, the most efficient and practical way to divide the sample into smaller classes of income was to use the clusters considered by the Italian tax system, used for the calculations of the IRPEF tax. It was also necessary to indicate a superior limit for the last class, in this case a maximum value of 200.000 euros of net income per year was chosen. The results indicate that the most populated cluster is the second class

of income that goes from 15.000 euros to 28.000 euros of net income per year. However, the graphic representation shows a diversified sample. Only the cluster associated with the highest income values, which presents a small relative frequency.

3.4.5 Current occupation

The respondents' current occupation was considered a useful discriminating factor since it can provide information regarding the differences in the perception of cashless tools of payment across different sectors in the market. It can be used as a proxy for the impact that education has regarding the awareness that the respondents' display about the new payment technologies.

Figure 5



Source: our elaboration on sample data

In figure 5 it is possible to see a representation of the distribution of the elements of the sample in different clusters, based on the type of occupation. Since the academic career influences heavily the choice of occupation types available to people the current occupation can be representative for both parameters as a proxy. The two categories that collect the highest number of respondents are the student group and the employee group. The group “*Other*” contains the residuals that could not be ascribed to any other set.

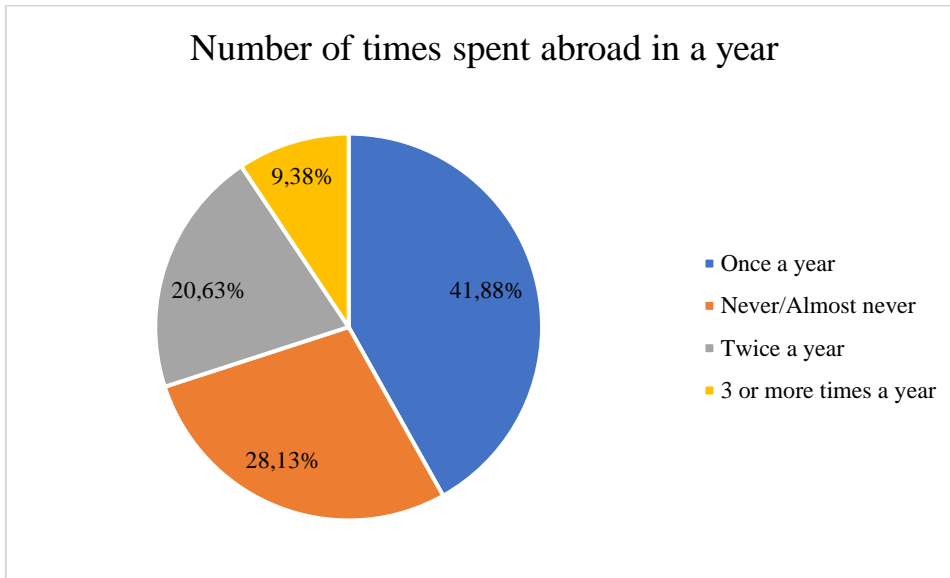
Types of current occupation	Absolute frequency
Student	52
Retired	19
Private sector	16
Public sector	23
Employee	38
Unemployed	1
Working and studying	4
Other	7
Total number of elements	160

Source: our elaboration on sample data

3.4.6 Number of times spent abroad in a year

Since in this thesis it was considered interesting to analyse whether the exposure to different payment systems changed the respondents' perception and their habits it was necessary to include in the clustering system a way to quantify the level of exposure that each respondent experienced on average during a given period of time. The first factor that was included on the analysis to measure this level was the number of times that people spend abroad on average on a yearly basis.

Figure 6



Source: our elaboration on sample data

Clusters of time spent abroad	Absolute frequency
Once a year	67
Never/Almost never	45
Twice a year	33
3 or more times a year	15
Total number of elements	160

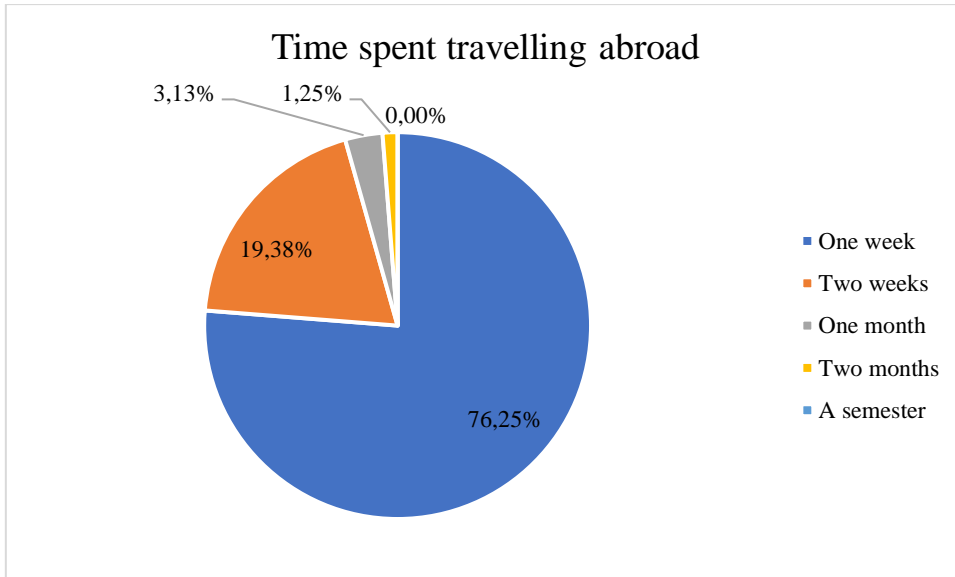
Source: our elaboration on sample data

In figure 6 it is possible to see a graphical representation of the distribution of the elements of the sample in the different cluster of times spent abroad on average on a yearly basis. The most populated cluster is the one that gathers the respondents who travel once in a year on average. Since the second most populated cluster, gathering those who do not travel even one in a year, and the third most populated cluster, gathering those who travel on average twice in a year, are relatively close the sample can provide a representative overview for the research purposes.

3.4.7 Time spent travelling abroad

The second factor that was considered to complete the information regarding the exposure to different payment systems was the amount of time spent abroad per travel since this data could be used alongside the information displayed in figure 6 and gathered from the previous paragraph to quantify the critical factor considered in this phase.

Figure 7



Source: our elaboration on sample data

Clusters of time spent travelling abroad	Absolute frequency
One week	122
Two weeks	31
One month	5
Two months	2
A semester	0
Total number of elements	160

Source: our elaboration on sample data

The dominant cluster of amount of time spent abroad is definitely the one gathering the respondents who spend on average one week travelling, as expected in the clusters considering longer periods of time there are fewer elements. The second most populated class is the one which gathers those respondents who spent two weeks abroad, while all further clusters are very scarcely populated.

CHAPTER 4: QUANTITATIVE STUDY OF THE CONSUMERS' PERCEPTION

Summary:

Introduction 4.1 SWOT analysis of the cashless tools in Italy 4.1.1 Analysis of the strengths 4.1.2 Analysis of the weaknesses 4.1.3 Analysis of the opportunities 4.1.4 Analysis of the threats 4.2 The approach of the Kano model 4.2.1 The perception of safety 4.2.2 The perception of transparency 4.2.3 The perception of the convenience of use 4.2.4 The perception of the inclusion of savings management services 4.2.5 The perception of the influence on the market over corruption and black money 4.2.6 Final considerations about consumer's satisfaction according to the model 4.3 The role played by the credit institutions and their marketing campaigns 4.4 Logistic regression analysis 4.4.1 The logistic regression estimates for the national use of cash 4.4.2 The logistic regression estimates for the international use of cash

Introduction

After the description of the characteristics of the elements that compose the sample, it is possible to proceed with the actual analysis of the data obtained from the respondents. In order to obtain a detailed and complete picture of the perception and use of the cashless tools of payment, three different models can provide valuable methods to estimate and quantify the variables of interest for this thesis. Initially there is going to be a SWOT analysis based on secondary sources of information which aims to provide an interpretation of the current characteristics of the Italian economic system and a prospect of the future evolution of the adoption of the new technologies in the country.

After this step, the Kano model designed to measure customers' satisfaction is going to be applied to measure which characteristics of the cashless payment tools are the most important for the Italian customers. This method is going to showcase the relative importance of the core characteristics of the cashless tools among themselves and will allow a representation of the customers' expectations on the new technologies available in this field.

Finally, there is going to be a section dedicated to the regression analysis, a process that is going to provide information about the correlation between the personal information of the sample elements described in the third chapter of this thesis and the expectations that the Italian customers have regarding the cashless payment tools.

4.1 SWOT analysis of the cashless tools in Italy

A SWOT analysis is a powerful tool used to produce an array of the most important and strategic characteristics that are present in a certain environment. This method allows to create a framing mechanism for the strengths, weaknesses, opportunities and threats that can be identified and that are considered relevant for the introduction of goods and services in a given environment. In this case the entity that is going to be analysed is the integration of cashless payment tools in Italian economic payment system and the underlying conditions that affect the possibility of discouraging the dominant use of traditional payment tools in everyday transactions, since they limit the use of the other payment options.

Since the final goal of this thesis is to compare the Italian consumers' perception with the information obtained from the use of the SWOT analysis, it was preferred to obtain the information necessary to build this section of the analysis by basing it on secondary sources of information. Such sources are: the paper published by the Istat (Istituto nazionale di statistica) (2019), regarding a quantitative study of an estimate of the evolution trends of the parallel economy in Italy "*L'economia non osservata nei conti nazionali | Anni 2014-2017*", and a paper published by Confindustria (Confederazione generale dell'industria italiana) and written by Andrea Montanino (2019) entitled "*Incentivare l'uso della moneta elettronica e disincentivare il contante: una proposta*", which proposed a series of measures to strengthen the use of cashless tools in Italy and to discourage the dominance of cash as a transaction tool while giving interesting estimates for the results that could be obtained for the consumers and the Italian State in general.

4.1.1 Analysis of the strengths

The first category of characteristics that need to be pointed out are the strengths currently available to the Italian economic system that might enable a transition towards a stronger presence of cashless tools in the economy. In the first place the Italian government has shown in the past few years to support the transition towards a cashless economy in many ways, by imposing limits to the amount of cash that can be used to pay a good or a service, that in 2020 passed from three thousand euros to two thousand euros, and the most recent initiatives of tax incentives directed to cashless tools users. The reason for this support comes from the problems connected with the high presence of fiscal evasion and, to a lesser extent, illegal activities which present comparatively higher values than the other European countries in the European Union¹⁰⁶. A successful transition towards a cashless economy would limit the amount of wealth circulating in those environments due to the higher control that the State would obtain over the transfers of resources.

Another strength that can be argued to facilitate the transition towards a cashless system in the country can be found in the paper published by Istat in 2019. The analysis produced by the institution argues that the trend taken by the parallel economy in Italy has been changing in a relatively positive way since its relative weight on the gross domestic product of the country is decreasing over the four year span considered in the study¹⁰⁷. The Istat researchers were able to estimate that while in 2014, the first year considered

¹⁰⁶ A. Montanino, *Incentivare l'uso della moneta elettronica e disincentivare il contante: una proposta*, 2019 p.2, in https://www.confindustria.it/home/centro-studi/temi-di-ricerca/valutazione-delle-politiche-pubbliche/tutti/dettaglio/Incentivare-uso-%20moneta-elettronica-%20disincentivare-contante-una-proposta?__cf_chl_jschl_tk__=c05dc5f0375df5a04fb72b22e72ddaac913175ef-1602662805-0-AYXDvEY35uD_wWH3CVVSTksBnN_EHVx0xhmBYed2t7cCHpAADCezQe4zohf18cNOv755ju2ZuWObw74DXEV_fFOctOpf5JbbjBxj8jmdpKM9R5yGhiK1a0hbD0JdA2s-I7f-DfScIVroNZKcd-32y2B3bhDELQ0odfKhjL2JAMcNHJjuU9ul9BNC_kUyLvWNDNW7hWAViHOvbmArw-NoT2ybIkANjFyC7u20fpzbfzAaKi7-SOKdpkeTC8SWI54ESb9_JO-Qgr7WmpUJik16h4UeCegDpIF1bydnH33RnxaGvObhvAthFJWYHT8sGAfYOUpnq2346S0yF4Y7z280PmMXcHDZJoSs7TKKCNZABqdC1uborEWtRKDYmF514MWQEUtdZYLNhMfjzDrnSLe9HlwXmG-QPs29QnTZyMDqlyPSnsa4DZvns6JUaKhyKZ5E_VQxKWpReuGoT5QGg5T3w8nH3JSrRNpcGrvgS6JJNV3

¹⁰⁷ Istat, *L'economia non osservata nei conti nazionali | Anni 2014-2017*, 2018 p. 1, in <https://www.istat.it/it/archivio/248596>

by the paper, the relative weight of the parallel economy was equal to 13% of the Italian gross domestic product in 2017 the relative weight decreased reaching a share of 12.1% of the Italian GDP¹⁰⁸. This positive trend is not connected only with the use of cashless payment tools however, and instead it is probably a consequence of a series of factors, among which the slow growth of the Italian production must be considered as well. However, this positive trend can allow other considerations on the other side of the spectrum, in other words it is true that the many positive factors influenced the relative weight of parallel economy over the GDP but it is also true that the illegal activities did not increase their value as much as the regular economic activities over the analysed period¹⁰⁹. The same results have been used and confirmed by the other paper cited previously, written by Montanino (2019) and published by Confindustria. In this report the evolution of the position of Italy is still ambiguous; in 2016 the value of the parallel economy was decreasing and amounted to 12.4% of the GDP, but still the relative weight of the parallel economy on the GDP was worse in comparison with other European countries, considering that only Greece has a worse relative weight of parallel economy and other neighbouring countries, like Austria and France, presented relative weights that were far better¹¹⁰.

4.1.2 Analysis of the weaknesses

Looking at the weaknesses that might limit the reach of the policies aimed to allow the transition towards a cashless system it is possible to see the general reluctance that the Italian consumers have shown in the recent times to switch from the traditional payment tools to the new options available. As it was discussed in the previous chapters, Italy has not been able to catch up to the quick evolution of the economic systems that was caused by the new payment methods.

Another element that does not encourage the transformation of the economic system is the risk of seeing the transaction costs connected with the use of cashless payment tools grow in the short term, right after the transition towards the new payment options. Since in this period of time the level of costs related to the management of cashless tools would not be adjusted there might be repercussions on the consumers' resources which could consequently abandon the cashless tools to avoid the use of the new options to limit the

¹⁰⁸ Istat, *L'economia non osservata nei conti nazionali | Anni 2014-2017*, 2018 p. 1, in <https://www.istat.it/it/archivio/248596>

¹⁰⁹ Istat, *L'economia non osservata nei conti nazionali | Anni 2014-2017*, 2018 p. 1, in <https://www.istat.it/it/archivio/248596>

¹¹⁰ A. Montanino, *Incentivare l'uso della moneta elettronica e disincentivare il contante: una proposta*, 2019 p.2, in [45](https://www.confindustria.it/home/centro-studi/temi-di-ricerca/valutazione-delle-politiche-pubbliche/tutti/dettaglio/Incentivare-uso-%20moneta-elettronica-%20disincentivare-contante-una-proposta?__cf_chl_jschl_tk__=c05dc5f0375df5a04fb72b22e72ddaac913175ef-1602662805-0-AYXDvEY35uD_wWH3CVVSTksBnN_EHVx0xhmBYed2t7cCHpAADCEzQe4zohf18cNOv755ju2Zu wObw74DXEV_fFOctOpf5JbbjBxj8jmdpKM9R5yGhiK1a0hbD0JdA2s-I7f-DfScIVroNZKCD-32y2B3bhDELQ0odfKhjL2JAMcNHJjuU9ul9BNC_kUyLvWNDNW7hWAViHObvmArw-NoT2yblkANjFyC7u20fpzbfzAaKi7-SOKdpkeTC8SWI54EstB9_JO-Qgr7WmpUJik16h4UeCegDpIF1bydnH33RnxaGvObhvAthFJWYHT8sGAfYOUpnq2346S0yF4Y7z280 PmMXcHDZJoSs7TkKCNZABqdC1uborEWtRKDYmF514MWQEUtdZYLNhMfjzDrnSLe9HlwXmG-QPs29QnTzYMDqlyPSnsa4DZvns6JUaKhyKZ5E_VQxKWpReuGoT5QGg5T3w8nH3JSrRNpcGrvgS6 JJNV3</p></div><div data-bbox=)

impact of the transaction costs. As a matter of fact, in the paper by Montanino (2019) one of the two proposed policies that would enable the government to promote the transition towards the cashless system is the introduction of incentives for those consumers who decide to use cashless solutions of payment¹¹¹.

This last weakness is also reinforced by another issue, which is the perception of cash as the easiest and most convenient payment tool available for the Italian consumers. Since cash is perceived as the best option, the consumers themselves are not as willing to limit its use as the foreign consumers, who are used to the presence of different payment systems. In Montanino's paper (2019) the second proposal for the Italian government is to introduce disincentives to the use of cash to induce consumers to avoid relying almost exclusively on traditional payment tools in favour of the new options. These disincentives could take the form of commissions that would have to be paid when withdrawing cash from the ATMs (Automated Teller Machines), if exceeding a fixed amount.

Financial literacy has also proven to be a weakness of Italian culture when dealing with the transition to cashless options. As it was shown in the previous chapters the impact of poor financial literacy cannot be understated when a country wishes to transform its payment system. If the consumers do not trust the stability of their economy, similar factors to those that push people away from investments drive the consumers to choose physical forms of wealth to exercise directly their control over their own resources. Furthermore, the communication strategy to promote the use of cashless options needs to be designed in a more complex way if the average consumer lacks the information necessary to comprehend the advantages and the characteristics of the new technologies that are available.

Another issue that plagues the Italian economy is the unjust advantage that firms and companies that manage to elude their tax obligation hold over their competitors or the other firms in general. First of all, reliance on this type of negative practices modifies artificially the way in which the market works, making the virtuous companies not as competitive. Secondly, the amount of taxes evaded can be translated in a loss of resources that the State. Those resources that could employ to design communication campaigns or to implement stronger policies to push the Italian system to initiate the transition towards a cashless economy with a stronger impulse. These reflections are present in Montanino's paper (2019) and the data reported suggests that in part, the ability to evade taxes is achieved through the exploitation of cash since it is harder for the central State to control

¹¹¹ A. Montanino, *Incentivare l'uso della moneta elettronica e disincentivare il contante: una proposta*, 2019 p.3, in https://www.confindustria.it/home/centro-studi/temi-di-ricerca/valutazione-delle-politiche-pubbliche/tutti/dettaglio/Incentivare-uso-%20moneta-elettronica-%20disincentivare-contante-una-proposta?__cf_chl_jschl_tk__=c05dc5f0375df5a04fb72b22e72ddaac913175ef-1602662805-0-AYXDvEY35uD_wWH3CVVSTksBnN_EHVx0xhmBYed2t7cCHpAADCEzQe4zohf18cNOv755ju2Zu wObw74DXEV_fFOctOpf5JbbjBxj8jmdpKM9R5yGhiK1a0hbD0JdA2s-I7f-DfScIVroNZKcd-32y2B3bhDELQ0odfKhjL2JAMcNHjuU9ul9BNC_kUyLvWNDNW7hWAViHObvmArw-NoT2yblkANjFyC7u20fpzbfzAaKi7-SOKdpkeTC8SWI54EstB9_JO-Qgr7WmpUJik16h4UeCegDpIF1bydnH33RnxaGvObhvAthFJWyHT8sGAfYOUpnq2346S0yF4Y7z280 PmMXcHDZJoSs7TkKCNZABqdC1uborEWtRKDYmF514MWQEUtdZYLNhMfjzDrnSLe9HlwXmG-QPs29QnTZyMDqlyPSnsa4DZvns6JUaKhyKZ5E_VQxKWpReuGoT5QGg5T3w8nH3JSrRNpcGrvgS6 JJNV3

this type of currency, compared to plastic money or cashless payment tools¹¹². This phenomenon can also take the form of personnel hired illegally and paid with black money.

4.1.3 Analysis of the opportunities

After the section dedicated to the weaknesses present in the current Italian situation it is possible to identify those characteristics that instead might bring a positive change in the near future, regarding the adoption of cashless tools of payment. In this section, these opportunities are going to be analysed. The first opportunity that needs to be cited is the current climate generated by the pandemic brought by Covid 19, during this year. Due to the risks of entering in contact with contagious elements, such as cash, Italian consumers were pushed to adopt cashless solutions more often compared to the norm. According to a study produced by the observatory for credit cards and digital payments managed by Assifin, Nomisma and Ipsos for the first time in two years the demand for credit cards in Italy has registered a slight growth, exiting the previous stagnant phase¹¹³.

The proposed measures present in Montanino's paper (2019) could be considered opportunities if followed by a correct implementation and if applied with resolution. A combination of disincentives to reduce the reliance on cash and incentives for the card users might bring strong advantages that should drive a further growth in the adoption rate of cashless options and a more constant use of the cashless tools. The results forecasted in the study published by Confindustria show a significant reduction, both in terms of number and in value, of the transactions managed through cash. Respectively, the number of transactions in cash should diminish by 10% each year after the implementation of the advantages and the value of these transactions should decline roughly by fifty billion euros on average each year.

Another opportunity that could produce positive repercussions on the transformation of the economic system, if correctly seized, are the resources that are going to be addressed to Italy in the next years, coming from the European Union. These resources could be directed towards the reinforcement of the efforts that the Italian State is doing to push its

¹¹² A. Montanino, *Incentivare l'uso della moneta elettronica e disincentivare il contante: una proposta*, 2019 p.3, in https://www.confindustria.it/home/centro-studi/temi-di-ricerca/valutazione-delle-politiche-pubbliche/tutti/dettaglio/Incentivare-uso-%20moneta-elettronica-%20disincentivare-contante-una-proposta?__cf_chl_jschl_tk__=c05dc5f0375df5a04fb72b22e72ddaac913175ef-1602662805-0-AYXDvEY35uD_wWH3CVVSTksBnN_EHVx0xhmBYed2t7cCHpAADCezQe4zohf18cNOv755ju2ZuwObw74DXEV_fFOctOpf5JbbjBxj8jmdpKM9R5yGhiK1a0hbD0JdA2s-I7f-DfScIVroNZKCD-32y2B3bhDELQ0odfKhjL2JAMcNHJjuU9ul9BNC_kUyLvWNDNW7hWAViHOvbmArw-NoT2yblkANjFyC7u20fpzbfzAaKi7-SOkdpkeTC8SWI54ESb9_JO-Qgr7WmpUJik16h4UeCegDpIF1bydnH33RnxaGvObhvAthFJWYHT8sGAfYOUpnq2346S0yF4Y7z280PmMXcHDZJoSs7TkKCNZABqdC1uborEWtRKDYmF514MWQEUtdZYLNhMfjzDrnSLe9HlwXmG-QPs29QnTzYMDqlyPSnsa4DZvns6JUaKhyKZ5E_VQxKWpReuGoT5QGg5T3w8nH3JSrRNpcGrvgS6JJNV3

¹¹³ Ansa, *Covid: Nomisma, 8 italiani su 10 hanno usato e-commerce*, 2019 in https://www.ansa.it/sito/notizie/economia/2020/09/29/covid-nomisma-8-italiani-su-10-hanno-usato-e-commerce_82d0294c-92a3-451b-8cdb-185e1101e5a0.html

citizens to shift from their traditional payment tools to plastic currency since this initiative could represent a worthy investment for the resources of the State.

4.1.4 Analysis of the threats

Finally, to complete the creation of the SWOT analysis, it is necessary to identify the possible future threats that might hinder the realization of the projects aimed to promote the use of cashless payment tools to the Italian consumers. One of the issues that needs to be considered when dealing with this type of transformation, are the long periods of adjustment that are necessary to manage the transition smoothly, without causing abrupt changes in the market. Due to this fact the results for the State are going to be visible in the long term. In Montanino's paper (2019) it is forecasted that the initial expenses that the Italian State would have to allocate to start the projects of incentives, for cashless users, and disincentives, for cash users, would be recovered only after three years from their implementation¹¹⁴. As a result, an unstable government could limit the effectiveness of these measures.

Another risk is posed by the policies that act against the transition. Some examples are the policies that allow consumers to withdraw greater sums of cash from the ATMs, that are not uncommon. One example is the policy introduced in Italy during 2016 that increased the amount of cash that could be used to pay for a good or a service, from the previous limit of 2500 euros to 3000 euros. This policy has been changed only recently, in 2020, and the new regulation establishes that the limit for the amount of cash that can be used for the payments of goods and services must be capped at 2000 euros.

Another potential factor that could limit the effectiveness of the policies aimed to promote the transition towards cashless payment tools is a limited cooperation between the institutions that manage the cashless payment tools and their customers. At the moment the limited reliance on these tools has been a concurring factor for the high commission costs and the important expenses that businesses have to undertake in order to install the infrastructure needed to obtain the cashless payment options, such as POS payments and other cashless options. In Montanino's paper (2019), it is suggested that there needs to be an increasing interest from the State and the credit institutions to reach an agreement that could open possibilities to make the instalment and the use of cashless tools more accessible to business owners. If this cooperation is not achieved quickly however, the

¹¹⁴ A. Montanino, *Incentivare l'uso della moneta elettronica e disincentivare il contante: una proposta*, 2019 p.5, in https://www.confindustria.it/home/centro-studi/temi-di-ricerca/valutazione-delle-politiche-pubbliche/tutti/dettaglio/Incentivare-uso-%20moneta-elettronica-%20disincentivare-contante-una-proposta?__cf_chl_jschl_tk__=c05dc5f0375df5a04fb72b22e72ddaac913175ef-1602662805-0-AYXDvEY35uD_wWH3CVVSTksBnN_EHVx0xhmBYed2t7cCHpAADCEzQe4zohf18cNOv755ju2Zu wObw74DXEV_fFOctOpf5JbbjBxj8jmdpKM9R5yGhiK1a0hbD0JdA2s-I7f-DfScIVroNZKCD-32y2B3bhDELQ0odfKhjL2JAMcNHJjuU9ul9BNC_kUyLvWNDNW7hWAViHObvmArw-NoT2yblkANjFyC7u20fpzbfzAaKi7-SOKdpkeTC8SWI54EstB9_JO-Qgr7WmpUJik16h4UeCegDpIF1bydnH33RnxaGvObhvAthFJWyHT8sGAfYOUpnq2346S0yF4Y7z280 PmMXcHDZJoSs7TkKCNZABqdC1uborEWtRKDYmF514MWQEUtdZYLNhMfjzDrnSLe9HlwXmG-QPs29QnTZyMDqlyPSnsa4DZvns6JUaKhyKZ5E_VQxKWpReuGoT5QGg5T3w8nH3JSrRNpcGrvgS6 JJNV3

use of these tools is going to remain limited and the effects of the policies aimed to increase their presence in the market are going to be hindered.

Furthermore, in the same paper published by Confindustria, Montanino (2019), the measure aimed to limit the cash withdrawals from the ATMs could be seen as controversial from the consumers' point of view. Consequently, it is suggested to consider the consumers' perception of a policy of this kind before deciding to implement it, since it could be seen negatively, as a way to limit withdrawals in times of national recession¹¹⁵.

After having considered all of these possible implications, it is possible to create the SWOT matrix to produce a synthesis of the most important factors discussed in the previous paragraphs.

Table 8

<p style="text-align: center;">STRENGTHS</p> <ul style="list-style-type: none"> • Interest and support from the Italian government • Already implemented policies aimed to reduce the dominance of cash payments • Positive trends of reduction of the parallel economy over GDP 	<p style="text-align: center;">WEAKNESSES</p> <ul style="list-style-type: none"> • High initial commission costs in the short term for business owners • Current consumers' perception of cash as the most convenient payment tool • Limited financial literacy • Market distortions due to the unfair advantages held by evading firms
<p style="text-align: center;">OPPORTUNITIES</p> <ul style="list-style-type: none"> • Window of opportunity to change the consumers' habits due to Covid 19 • Adoption of the measures proposed by Confindustria • Destination of the European funds to foster the transition towards cashless payment systems 	<p style="text-align: center;">THREATS</p> <ul style="list-style-type: none"> • Lack of political stability • Policies acting against the aims of transitioning towards cashless systems • Lack of cooperation between the State and the credit institutions • Consumers' negative perception of the policies implemented

¹¹⁵ A. Montanino, *Incentivare l'uso della moneta elettronica e disincentivare il contante: una proposta*, 2019 p.7, in https://www.confindustria.it/home/centro-studi/temi-di-ricerca/valutazione-delle-politiche-pubbliche/tutti/dettaglio/Incentivare-uso-%20moneta-elettronica-%20disincentivare-contante-una-proposta?__cf_chl_jschl_tk__=c05dc5f0375df5a04fb72b22e72ddaac913175ef-1602662805-0-AYXDvEY35uD_wWH3CVVSTksBnN_EHVx0xhmBYed2t7cCHpAADCEzQe4zohf18cNOv755ju2ZuwObw74DXEV_fFOctOpf5JbbjBxj8jmdpKM9R5yGhiK1a0hbD0JdA2s-I7f-DfScIVroNZKcd-32y2B3bhDELQ0odfKhjL2JAMcNHJjuU9uI9BNC_kUyLvWNDNW7hWAViHOvbmArw-NoT2yblkANjFyC7u20fpzbfzAaKi7-SOKdpkeTC8SWI54EstB9_JO-Qgr7WmpUJik16h4UeCegDpIF1bydnH33RnxaGvObhvAthFJWYHT8sGAfYOUpnq2346S0yF4Y7z280PmMXcHDZJoSs7TkKCNZABqdC1uborEWtRKDYmF514MWQEUtdZYLNhMfjzDrnSLe9HlwXmG-QPs29QnTZyMDqlyPSnsa4DZvns6JUaKhyKZ5E_VQxKWpReuGoT5QGg5T3w8nH3JSrRNpcGrvgS6JJNV3

4.2 The approach of the Kano model

The Kano model offers another powerful tool that can help to understand the consumers' perception about the cashless payment tools. This model has the goal to identify which characteristics of a product or service are considered to be the most important in the consumers' point of view. In order to build the analysis according to the rules of the Kano model the questionnaire used to obtain the information needs to be designed in a specific way.

First of all, it is necessary to decide which characteristics are going to be considered and submitted to the respondents. In the case of this thesis the main focus was to understand whether the general Italian consumer can be affected in his, or her, decisions based on five different characteristics of an hypothetical cashless service: the safety of the cashless tool certified by a professional third party, the transparency of the service connected to the use of the cashless tool, the level of convenience to use the cashless tool, the inclusion of savings management services and the ability of the cashless tool to reduce the practices of corruption and black money in the market.

After deciding which characteristics are interesting the structure of the questionnaire must be built by posing questions regarding how the consumer's perception changes if the characteristic chosen is present and successively how the consumer's perception changes if the characteristic is not present. In order to obtain a detailed answer from the respondents, five possible answer options were included for every question, allowing the respondent to choose whether the presence or the absence of the examined characteristic is liked, is necessary, leaves the respondent neutral, can be born or is disliked. This process in two phases must be repeated for each and every characteristic that was chosen in the initial design.

Once all the information has been collected it is possible to identify which characteristics are the most important for the consumers through a comparison between the answers given to the positive form of the question, where the characteristic is present, and the negative form of the question, where the characteristic is not present. In the end, considering the data obtained in its entirety, the final results are going to be obtained allowing the classification of the characteristics chosen at the beginning according to the six classes considered in the Kano model method.

The Kano model individuates six general categories in which a characteristic can fit: the class of the "Attractive" features which are liked when present in the product or service and usually are considered necessary, can be born or leave the respondent neutral when not present. The class of the "Must be" features that are considered to be necessary, can be born or leave the respondent neutral when present but if not present cause a strong negative reaction in the consumer and cause the product or service to not be liked. The class of "Reverse" features which includes those characteristics which can be considered necessary, can be born, disliked or leave the respondent neutral but are liked when not present. The class of "One-dimensional" features which are liked when present and disliked when not present. The class of "Questionable" features for which the presence of the characteristic analysed gives inconclusive results as it causes the product, or

service, to be disliked both in case of it being present but also in the case of it being not present. This phenomenon can happen also in the case of a characteristic which causes the product to be liked when it is present but also liked when not present. Finally, the last class of features is the one of the “Indifferent” characteristics for which the respondent has no strong reaction, both in case of their presence or absence.

4.2.1 The perception of safety

Considering the five characteristics included by design in our analysis most of them fell into the “Must be” class. Starting from the certification of the safety of the cashless tool given by professional third parties 49.4% of the respondents reported to consider it a necessary characteristic of the service and 78.8% of the sample did not like the absence of this feature. By using the definitions given by the Kano model this element is a part of the “Must be” characteristics which are considered a necessity by the consumers. This insight is in line with the concerns expressed by the respondents of the paper written by Yuvaraj and Eveline. N in 2018.

Table 10

ANSWER OPTIONS	SAFETY CERTIFIED BY THIRD PARTIES	SAFETY NOT CERTIFIED BY THIRD PARTIES
I like it	57	1
Must be	79	5
Neutral	17	20
I can bear it	5	8
I do not like it	2	126
Total	160	160

Source: our elaboration on sample data

4.2.2 The perception of transparency

Looking at the transparency of the service accessed by using the cashless tool the respondents’ opinion does not change for the scope of this analysis as even in this case the feature is believed to be necessary and belongs to the “Must be” class with 44.4% of the sample considering it a necessity and 78.8% of the sample disliking its absence. However, in this case the opinions are slightly more diversified in favour of the “One-dimensional” class, as the share of the sample that liked the presence of this feature amounted to 42.5%, being close to the share that considered transparency a necessity. A research with a wider sample might be able to determine more clearly to which class this feature belongs.

Table 11

ANSWER OPTIONS	TRANSPARENT SERVICE	NOT TRANSPARENT SERVICE
I like it	68	2
Must be	71	2
Neutral	16	15
I can bear it	2	15
I do not like it	3	126
Total	160	160

Source: our elaboration on sample data

4.2.3 The perception of the convenience of use

Considering the respondents' perception of the convenience of use of the cashless tool the answers reported that even this feature is considered a necessity by the consumers and therefore it belongs to the class of "Must be" characteristics. 49.4% of the sample considered this element a necessity when present and 63.8% disliked its absence.

Table 12

ANSWER OPTIONS	PARTICULAR CONVENIENCE IN USE	NO PARTICULAR CONVENIENCE IN USE
I like it	71	2
Must be	79	2
Neutral	7	14
I can bear it	1	40
I do not like it	2	102
Total	160	160

Source: our elaboration on sample data

4.2.4 The perception of the inclusion of savings management services

In the case of the respondents' perception of the presence of a savings management service included among the services offered by the use of a cashless tool, the reported answer identified this feature as "Indifferent". Most respondents chose the neutral option both for the presence and the absence of this feature, respectively with a share of 38.8% in the positive question and with a share of 57.5% in its negative form. In this case as well an interesting insight comes from the fact that the presence of savings management services was liked by 37.5% of the sample; in a case similar to the characteristic of transparency, the classification of this feature might change into an "Attractive" element if the dimensions of the sample were wider.

Table 13

ANSWER OPTIONS	SAVINGS MANAGEMENT SERVICE INCLUDED	SAVINGS MANAGEMENT SERVICE NOT INCLUDED
I like it	60	10
Must be	8	10
Neutral	62	92
I can bear it	4	25
I do not like it	26	23
Total	160	160

Source: our elaboration on sample data

4.2.5 The perception of the influence on the market over corruption and black money

Finally, the last characteristic included in the initial design of the research is the respondents' perception about the impact of the use of the cashless tool on the practices of corruption and black money. This feature was considered to be "One-dimensional" since 63.1% liked its presence and 61.3% disliked its absence. In this case the respondents believe that this feature is always a positive element when present and therefore their perception of the cashless tool is ameliorated as long as the strength of the positive effects on the market is increased.

Table 14

ANSWER OPTIONS	LIMITING CORRUPTION AND BLACK MONEY	NOT LIMITING CORRUPTION AND BLACK MONEY
I like it	101	5
Must be	41	7
Neutral	14	31
I can bear it	2	19
I do not like it	2	98
Total	160	160

Source: our elaboration on sample data

4.2.6 Final considerations about consumer's satisfaction according to the model

Through the kano model it is possible to understand that for the most part the average consumer from the Veneto region is significantly selective regarding the features that are present in a cashless tool of payment. This is not the only information that can be obtained through the use of this model, however.

The Kano model is also able to consider the relationship between the level of presence of a specific feature and the satisfaction that a consumer receives through the interaction with the product or service which possesses such feature. For example, considering the first feature according to which the cashless product has received a certification from professional third parties regarding its safety it is possible to see that, due to the classification as a "Must be" characteristic, the consumer's satisfaction behaves in an asymptotic way. As long as the minimal requirements are met by the cashless tool regarding its safety, the consumers are willing to use the cashless option; on the other hand as soon as the minimal requirements are not met by the cashless tool its use is going to decrease steadily.

In the case of the feature describing the transparency of the cashless services, a conclusion similar to the one expressed in the previous paragraph can be derived from the placement of this characteristic in the "Must be" class of features. However, due to the proximity expressed by the consumers with the "One-dimensional" class, it could be argued that the trend of satisfaction could be described also as a linear relationship in which an increase of transparency would lead to a proportional increase of the customer's satisfaction.

Considering the feature of convenience, the consumer's satisfaction behaves in the same way of the previous two characteristics as this element is considered a "Must be" feature as well.

The situation changes when discussing the role played by the inclusion of savings management services in relation with the respondent's satisfaction. This feature is considered an "Indifferent" factor, therefore there is no relationship with the consumer's satisfaction. However, since this feature shows a proximity expressed by the respondents with the "Attractive" class of features, it could be argued that an increase of the level of services aimed to help consumers with the management of their resources could be met with a more than proportional increase in the consumer's satisfaction.

Finally, for the feature describing the positive impacts that the cashless tool would have over the practices of corruption and black money, since the characteristic was reported to belong to the "One-dimensional" class of features a proportional relationship between the increase of the positive impact and the level of consumer's satisfaction is established.

4.3 The role played by the credit institutions and their marketing campaigns

As it was discussed in the previous section of this thesis, the characteristics that are built in the services connected with cashless tools of payment have a relevant role when consumers decide whether to adopt them and use them frequently. Another type of information that can be investigated to understand the way in which people experience the choice between payment tools can be the role played by the communication campaigns produced for the public by the institutions that manage the cashless services.

In the questionnaire submitted to the sample there is a section dedicated to the gathering of a few insights regarding this subject. From the answers obtained it was possible to understand whether the respondents felt like they were affected, and in what capacity, by the communication campaigns regarding the use of cashless payment options. Furthermore, it was also possible to identify the top of mind credit institution brand that was the most remembered by the sample. Regarding the perceived influence that the communication campaigns have on the respondents, the information gathered reflects a scenario in which this tool has obtained limited success; 81.3% of the sample believes that their choice to use and adopt cashless payment tools was influenced in a very limited way, or in no way at all, by the communication campaigns produced by the credit institutions. This result is confirmed by the limited amount of answers that listed a particular brand for the credit institutions that could be considered a top of mind. Only 31.3% of the sample was able to list a particular brand as a top of mind and the two most present brands were "UniCredit" at the first place, being nominated by 5.6% of the sample, and "Fineco Bank" at the second place, being nominated by 5% of the sample.

4.4 Logistic regression analysis

The last step in order to provide a complete analysis of the sample for the purposes of this thesis, is to understand whether there is a mathematical model that is able to identify the presence of correlations between the use of cashless tools of payment in Italy and the variables discussed in the previous chapters; following the same reasoning, it is also interesting to investigate whether there are substantial differences if the focus of the research becomes the use of payment tools that Italian consumers perform abroad.

First of all, to identify the best fitting model for the sample according to the structure that was given to the questionnaire used to obtain the respondents' answers it is necessary to assign the roles of dependent variables on the use of cashless tools in Italy and to the use of cashless tools performed by Italian consumers abroad. The independent variables for this model are going to be five of the factors discussed in the third chapter: the respondent's gender, the respondent's age, the respondent's income class and the respondent's exposure to the foreign payment systems; the last factor is going to be represented in the model with two separate variables, one for the number of travels that the respondent reported on average in a year and the average amount of time spent travelling abroad for each trip. It was clear that due to the structure of the questionnaire, the model used to study the sample could not be a simple linear regression model; this consideration comes from the fact that the possible values that the dependent variables can assume are in a qualitative form; the main focus of the model was in fact to understand with which probability an Italian consumer uses cash in Italy and, in the second model, with which probability an Italian consumer uses cash abroad. As a result of this decision the values that the dependent variables assume can be either "Yes", if the consumer uses cash, and "No", if the consumer uses other payment tools for both models.

The model that fits the best with this type of research is the logistic regression model; this model allows to understand what is the probability that a certain element of the sample belongs to the class of positive answers for the dependent variable according to the independent variables that define it. In the case of this research, the logistic regression allows to understand with which probability a consumer belongs to the class of cash users according to his characteristics. This method differs from the simple linear regression model in many ways: first of all, while the simple linear regression model is used to find a function that is able to estimate the expected values of the dependent variable based on the independent variables considered, the logistic regression estimates a probability.

Another important difference that needs to be considered before choosing to apply either one of the two models is the fact that while the simple linear regression estimates can assume values that belong to the set of R , the estimate values of the logistic regression can only vary in values belonging to the set R and only between 0 and 1 due to the fact that the estimate is a probability. For this reason, once the probability estimate of the logistic regression is obtained, it is possible to assign the element that was considered either in the positive class for the dependent variable, if the estimate assumes a value between 0.5 and 1, and consequently it is also possible to assign the element to the negative class for the dependent variable, if the estimate assumes values between 0 and 0.5.

The identification of the the best logistic regression model for our research was obtained through the use of the software R studio. The form in which the independent variables were recorded had to be adjusted to be used correctly; the respondent's gender independent variable had to be transformed into a dummy variable that assumes the value 1 when the sample element is male and 0 when the sample element is female, the respondent's age independent variable was maintained as numeric. Regarding the independent variables representing the respondent's income class and the respondent's average number of travels in a year no changes were necessary, however, the last independent variable, representing the respondent's average amount of time spent travelling per trip, included a possible answer option for a semester that contained no elements of the sample and was removed as a consequence from the logistic regression model. The results of the logistic regression model reveal the coefficients that need to be incorporated into the final logistic regression function and the statistical significance of each independent variable option over the dependent variable, in this case the probability to use cash in Italy by Italian consumers.

4.4.1 The logistic regression estimates for the national use of cash

The first piece of information that the model is able to provide is the values of the deviance residuals; these values represent the minimum value, the first quartile, the median value, the third quartile and the maximum value.

Table 15

Minimum	1st quartile	Median	3rd quartile	Maximum
-1.3710	-0.7990	-0.5546	1.0230	2.5502

Source: our elaboration on sample data

The values displayed by the deviance residuals are roughly symmetrical and centred around 0, this is a positive sign that conveys the information that the model fits well to the data. After this initial finding the process was able to identify the coefficients for each independent variable considered in the model. Since the model contains several dummy variables it is important to note that for each dummy variable are represented only n-1 levels because of one level being the baseline for the dummy variable. In this case the baseline is the last level for each dummy variable.

Table 16

	Estimates	Standard error	Z value	P-value
Intercept	17.42166	2782.60397	0.006	0.99500
Gender male	-0.15795	0.43587	-0.362	0.71707
Income low	0.38906	1.07182	0.363	0.71661
Income medium low	1.32056	0.88419	1.494	0.13530
Income medium	1.00703	0.85905	1.172	0.24109
Income medium high	1.13276	0.91365	1.240	0.21504
Age	-0.04507	0.01522	-2.961	0.00306
Number of travels low	0.27169	0.84304	0.322	0.74725
Number of travels medium low	0.48986	0.79624	0.615	0.53841
Number of travels medium high	0.73489	0.81159	0.905	0.36520

Source: our elaboration on sample data

In order to make the logistic regression process smoother it was necessary to rename some of the independent variable levels; for example the former levels of the variable describing the income classes divided by using the values established by the Irpef tax were replaced with the levels present in the table as follows: “Up to 15.000 euros per year” was changed into “Income low”, “Between 15.000 and 28.000 euros per year” was changed into “Income medium low”, “Between 28.000 and 55.000 euros per year” became “Income medium”, “Between 55.000 and 75.000euros per year” became “Income medium high” and lastly “Over 75.000 euros per year” became the level “Income high” which is not present in the tables as it is considered the baseline.

The same naming process had to be observed for the variables describing the average number of travels that an Italian consumer reports in a year and for the average time spent travelling abroad per trip. For the former variable the level “Number of travels low” reflects those elements that reported to have 0 or almost 0 travels per year, “Number of travels medium low” is associated with those elements who reported to travel once per year, “Number of travels medium high” reflects those elements who travel twice a year and “Number of travels high” gathers the elements who reported to travel three or more times in a year and acts as the baseline. For the latter variable, “Travelling period low” translates to those elements who reported to stay a week abroad on average, “Travelling period medium low” reflects those elements who reported to travel for two weeks, “Travelling period medium high” is associated with the elements who spend one month

travelling and, finally, “Travelling period high” reflects the elements that spend two months travelling.

It is important to note that the p-values presented by the several levels of the variables are mostly not significant with the exception of the variable age, for which the p-value indicates significance with an interval of confidence of 90%.

By looking instead at the income levels, the probability that the sample element uses cash rather than any other tool considered in the analysis is relatively low for the lowest level of income and it increases for the second lowest level of income. After this initial growth, the probability to use cash for increasing amounts of income is mostly stable.

Considering the variables describing the exposure to different payment systems the results are opposed in their influence. If the focus is on the average number of travels performed in a year, the probability to use cash increases slowly for an increasing frequency of travels. On the other hand, the variable describing the amount of time spent travelling significantly reduces the probability to use cash and its effects are stronger following the increase in the amount of time spent travelling.

Finally, if age is considered, the probability to use cash is reduced, probably due to the fact that the older elements of the sample have an easier access to cashless tools compared to the younger ones.

4.4.2 The logistic regression estimates for the international use of cash

A similar process was used to analyse the differences that arise when considering the use of cash by consumers from the Veneto region in foreign countries.

First of all, it is important to consider the deviance residuals in this second case.

Minimum	1 st quartile	Median	3 rd quartile	Maximum
-1.1463	-0.6910	-0.4285	-0.1919	2.3349

In this case the residuals are roughly symmetrical but they are not centred in 0.

	Estimates	Standard error	Z value	P-value
Intercept	-1.696e+01	2.646e+03	-0.006	0.9949
Gender	-1.229e+00	5.252e-01	-2.340	0.0193
Income low	8.989e-01	9.341e-01	0.962	0.3359
Income medium low	-1.573e+00	1.010e+00	-1.558	0.1193
Income medium	1.893e-01	7.646e-01	0.248	0.8045
Income medium high	7.557e-01	8.288e-01	0.912	0.3619
Age	-6.443e-03	1.487e-02	-0.433	0.6648

Looking at the estimates for this iteration of the logistic regression it is possible to see that the issues with the significance continue to remain relevant; with the exception of the variable describing the gender which is considered significant with an interval of confidence of 90%.

In this case if the sample element considered belongs to the lowest level of income the probability to use cash abroad is increased, there is no easily identifiable trend however, for increasing level of income since in the “Medium low” level the probability to use cash abroad decreases and in the other two levels considered it is increased instead. Considering the variable describing the respondent’s age it is possible to see a negative relationship between the age of the respondents and the probability to use cash abroad.

Conclusions

To conclude, the reasons that cause a differentiation in the pace with which different countries are able to adapt to the cashless transition can be derived from several different causes; in some cases the economic advantages that the countries wish to gain from the transition are considered worthy of the investment of the resources necessary to push consumers to rely heavily on the new technologies; this the case of the United States of America, where the consistent investment in the implementation of a smooth transitioning process has generated a positive outlook in the eyes of the U.S. consumers and, in turn, increased their confidence in using cashless payment options more regularly. The ratings given by the consumers regarding the best payment tool option leave little doubts on the efficiency of the transition process enacted by the U.S.A., since the results confirm a steady growth in the amount of transactions managed through the new cashless tools over the traditional means of payment.

In other situations, like in the case of the Euro area countries, the differences that arise from the ways in which the different States adapted to the cashless technologies depend partially from the interests of the single States but also from the perception of the different payment tools that the consumers in a given country have; in countries where cash is seen strongly as a wealth stocking mechanism, the presence of cashless tools is limited compared to those countries where the consumers are generally more trusting towards the credit institutions and the State. Furthermore, there appears to be a cultural component to that concurs in the existence of the various situation in the euro area. The southern European countries are still relying heavily on the use of cash while the northern States seem to have made the first steps in order to reach a new equilibrium between the traditional and the new payment options.

The insights obtained from the studies focusing on the developing countries can allow the institutions to see the importance that the consumers' habits and their personal characteristics, such as culture influencing the roles within a society, the type of education and, to a higher extent, the consumers' financial literacy, have; all of the personal information discussed above can be considered a fundamental factor that needs to be accounted for in any plan that a state might prepare, if it aims to initiate the transition towards the cashless technologies. Furthermore, the ability to create proper infrastructure in order to sustain the internet connections and the services necessary to grant the access to cashless transactions services, need to be planned carefully especially in the rural areas where the population does not have comfortable ways to interact with the different payment options.

Looking at the specific case of Italy, the reasons why the country is still reluctant to commit fully to the transition towards a cashless economic system can be found in the important weight that the parallel economy has on the gross domestic product of the country, on the perception that the Italian consumers have of cash, as the most convenient tool to make transactions, and also to the Italian consumers' limited financial literacy that affects negatively the perception of cashless payment tools. The problem of high commission costs, the unstable trends in government policies and the limited efforts made

to promote the use of the cashless tools to the Italian consumers, in the country, are all contributing factors that influence negatively the ability of a country to reform its payment system.

Finally, from our study it was possible to see that there is indeed a positive effect on the perception of cashless tools, when Italian consumers have time to experience the different, and sometimes more advanced, payment systems of foreign countries and that there might be room for a better strategy for the integration of the roles played by the credit institutions and the Italian government; a stronger cooperation between these two parties could exploit the window of opportunity presented by the current period of time, in which the Covid 19 pandemic has drastically changed the Italian consumers' payment practices.

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AYXDvEY35uD_wWH3CVVSTksBnN_EHVx0xhmBYed2t7cCHpAADCezQe4zohf18cNOv755ju2ZuwObw74DXEV_fFOCtOpf5JbbjBxj8jmdpKM9R5yGhiK1a0hbD0JdA2s-I7f-DfScIVroNZKcd-32y2B3bhDELQ0odfKhjL2JAMcNHJjuU9ul9BNC_kUyLvWNDNW7hWAViHOsvmArw-NoT2yblkANjFyC7u20fpzbfzAaKi7-SOkdpkeTC8SWI54EStB9_JO-Qgr7WmpUJik16h4UeCegDpIF1bydnH33RnxaGvObhvAthFJWyHT8sGafYOUpnq2346S0yF4Y7z280PmMXcHDZJoSs7TkKCNZABqdC1uborEWtRKDYmF514MWQE UtdZYLNhMfjzDrnSLe9HlwXmG-QPs29QnTZyMDqlyPSnsa4DZvns6JUaKhyKZ5E_VQxKWpReuGoT5QGg5T3w8nH3JSrRNpcGrvgS6JJNV3

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Appendix

Code used in the computer program R studio to perform the logistic regression analysis

Logistic regression analysis of the probability to use cash in Italy

Call:

```
glm(formula = Dataset`Cash use ita` ~ Dataset$Gender + Dataset$Income +  
  Dataset$Age + Dataset$Travels + Dataset$Period, family = "binomial",  
  data = Dataset)
```

Deviance Residuals:

Min	1Q	Median	3Q	Max
-1.3710	-0.7990	-0.5546	1.0230	2.5502

Coefficients:

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	17.42166	2782.60397	0.006	0.99500
Dataset\$Gender1	-0.15795	0.43587	-0.362	0.71707
Dataset\$IncomeIncome low	0.38906	1.07182	0.363	0.71661
Dataset\$IncomeIncome medium	1.00703	0.85905	1.172	0.24109
Dataset\$IncomeIncome medium high	1.13276	0.91365	1.240	0.21504
Dataset\$IncomeIncome medium low	1.32056	0.88419	1.494	0.13530
Dataset\$Age	-0.04507	0.01522	-2.961	0.00306 **
Dataset\$TravelsLow	0.27169	0.84304	0.322	0.74725
Dataset\$TravelsMedium high	0.73489	0.81159	0.905	0.36520
Dataset\$TravelsMedium low	0.48986	0.79624	0.615	0.53841
Dataset\$PeriodLow	-18.14917	2782.60393	-0.007	0.99480
Dataset\$PeriodMedium high	-33.81432	3190.06560	-0.011	0.99154
Dataset\$PeriodMedium low	-17.77269	2782.60394	-0.006	0.99490

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 187.57 on 158 degrees of freedom
Residual deviance: 157.59 on 146 degrees of freedom
AIC: 183.59

Number of Fisher Scoring iterations: 16

Logistic regression analysis of the probability to use cash abroad

Call:

```
glm(formula = Dataset`Cash use abroad` ~ Dataset$Gender + Dataset$Income +  
  Dataset$Age + Dataset$Travels + Dataset$Period, family = "binomial",  
  data = Dataset)
```

Deviance Residuals:

Min	1Q	Median	3Q	Max
-1.1463	-0.6910	-0.4285	-0.1919	2.3349

Coefficients:

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	-1.696e+01	2.646e+03	-0.006	0.9949
Dataset\$Gender1	-1.229e+00	5.252e-01	-2.340	0.0193 *
Dataset\$IncomeIncome low	8.989e-01	9.341e-01	0.962	0.3359
Dataset\$IncomeIncome medium	1.893e-01	7.646e-01	0.248	0.8045
Dataset\$IncomeIncome medium high	7.557e-01	8.288e-01	0.912	0.3619
Dataset\$IncomeIncome medium low	-1.573e+00	1.010e+00	-1.558	0.1193
Dataset\$Age	-6.443e-03	1.487e-02	-0.433	0.6648
Dataset\$TravelsLow	6.265e-01	9.604e-01	0.652	0.5142
Dataset\$TravelsMedium high	-1.277e-01	1.025e+00	-0.125	0.9009
Dataset\$TravelsMedium low	1.845e-01	9.411e-01	0.196	0.8446
Dataset\$PeriodLow	1.595e+01	2.646e+03	0.006	0.9952
Dataset\$PeriodMedium high	1.842e-01	3.146e+03	0.000	1.0000
Dataset\$PeriodMedium low	1.575e+01	2.646e+03	0.006	0.9953

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 151.05 on 158 degrees of freedom
Residual deviance: 129.82 on 146 degrees of freedom
AIC: 155.82

Number of Fisher Scoring iterations: 16

Questions of the questionnaire submitted to the respondents

1) Di che sesso sei?

Maschio

Femmina

Preferisco non specificarlo

2) In quale città e provincia risiedi attualmente?

Open question

3) Quale occupazione svolgi al momento?

Studente

Lavoratore impiegato

Lavoratore in proprio/imprenditore

Dipendente pubblico

Altro...

4) A quanto ammonta il reddito netto del tuo nucleo familiare?

Fino a 15.000 euro annui

Tra i 15.000 e i 28.000 euro annui

Tra i 28.000 e i 55.000 euro annui

Tra i 55.000 e i 75.000 euro annui

Oltre i 75.000 euro annui

5) Quanto spesso viaggi all'estero in un anno?

Mai/quasi mai

Una volta l'anno

Un paio di volte l'anno

3 o più volte l'anno

6) Mediamente per quanto tempo ti trattiene all'estero nei tuoi viaggi?

Una settimana

Due settimane

Un mese

Due mesi

Un semestre

Più di un semestre

7) Quale tra i seguenti è il metodo di pagamento che usi più spesso in Italia?

Contante

Carte di credito/debito

Assegno

Bancomat

Carta prepagata

Altro...

8) Quale tra i seguenti è il metodo di pagamento che usi più spesso all'estero?

Contante

Carte di credito/debito

Assegno

Bancomat

Carta prepagata

Altro...

9) Come ti sentiresti usando un servizio di pagamento non in contanti (carta di credito, carta di debito, ecc ...) se la sua sicurezza risultasse certificata da enti specializzati?

Mi piace

Deve essere così

Neutrale

Posso sopportarlo

Non mi piace

10) Come ti sentiresti usando un servizio di pagamento non in contanti se la sua sicurezza non risultasse certificata da enti specializzati?

Mi piace

Deve essere così

Neutrale

Posso sopportarlo

Non mi piace

11) Come ti sentiresti usando un servizio di pagamento non in contanti (carta di credito, carta di debito, ecc ...) se la trasparenza fosse un suo punto di forza?

Mi piace

Deve essere così

Neutrale

Posso sopportarlo

Non mi piace

12) Come ti sentiresti usando un servizio di pagamento non in contanti se la trasparenza non fosse un suo punto di forza?

Mi piace

Deve essere così

Neutrale

Posso sopportarlo

Non mi piace

13) Come ti sentiresti usando un servizio di pagamento non in contanti (carta di credito, carta di debito, ecc ...) se le regole d'utilizzo fossero di facile comprensione?

Mi piace

Deve essere così

Neutrale

Posso sopportarlo

Non mi piace

14) Come ti sentiresti usando un servizio di pagamento non in contanti se le regole d'utilizzo non fossero di facile comprensione?

Mi piace

Deve essere così

Neutrale

Posso sopportarlo

Non mi piace

15) Come ti sentiresti usando un servizio di pagamento non in contanti (carta di credito, carta di debito, ecc ...) se fosse compreso un servizio di gestione dei risparmi?

Mi piace

Deve essere così

Neutrale

Posso sopportarlo

Non mi piace

16) Come ti sentiresti usando un servizio di pagamento non in contanti se non fosse compreso un servizio di gestione dei risparmi?

Mi piace

Deve essere così

Neutrale

Posso sopportarlo

Non mi piace

17) Come ti sentiresti usando un servizio di pagamento non in contanti (carta di credito, carta di debito, ecc ...) se il suo impiego limitasse la pratica della corruzione e del lavoro in nero?

Mi piace

Deve essere così

Neutrale

Posso sopportarlo

Non mi piace

18) Come ti sentiresti usando un servizio di pagamento non in contanti se il suo impiego non limitasse la pratica della corruzione e del lavoro in nero?

Mi piace

Deve essere così

Neutrale

Posso sopportarlo

Non mi piace

19) Pensi che il marketing di strumenti non in contanti ti influenzi nel momento in cui devi scegliere che tipo di pagamento effettuare?

No per niente

1

2

3

4

5

Sì molto

20) Riusciresti a ricordare dei marchi di banche che promuovono attivamente l'uso di strumenti non in contanti tramite campagne di comunicazione?

Open question

21) Quali tra questi fattori rendono l'uso di strumenti non in contanti più conveniente/competitivo del contante secondo te?

Sicurezza

Gestione dei risparmi

Controllo della corruzione

Controllo del denaro nero

Trasparenza e affidabilità

Facilità d'uso

Una buona comunicazione del servizio

22) Ci sono altri fattori che ti spingono a preferire l'uso del contante rispetto a strumenti di pagamento cashless?

Open question

23) Ci sono altri fattori che ti spingono a preferire gli strumenti di pagamento cashless rispetto al contante?

Open question