FINANCIAL LITERACY AND CREDIT CARD ARREARS

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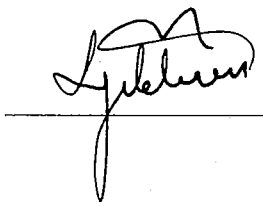
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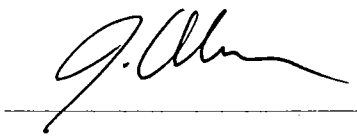
Financial Literacy and Credit Card Arrears

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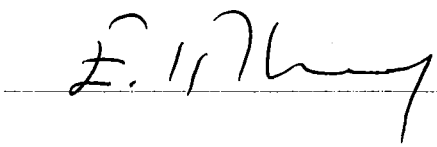
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Thesis Abstract

Tülin Araz, "Financial Literacy and Credit Card Arrears"

The thesis analyzes the effect of financial literacy on credit card arrears Specifically, it questions whether the inefficient use of credit cards or unexpected external shocks cause a cardholder to experience financial difficulties and to face a credit card default. Our main explanatory variable, financial literacy, is defined in three dimensions: information, which measures the financial knowledge of the cardholder; sophistication, which measures how much the cardholder is involved in financial markets; and activeness, which measures to what extent the cardholder uses her financial knowledge in finance related decisions.

The analysis is conducted in two parts. In the first part, with an ordered probit model, we identify the determinants of financial difficulties experienced by cardholders. We proxy financial difficulties with the number of months a cardholder does not pay at least the minimum amount due in her credit card bill. In the second part, with a binary logit model, we identify the determinants of credit card defaults. As explanatory variables we use measures of financial literacy, attitude toward consumption, external shocks, and some socioeconomic and demographic variables.

We find external shocks to be important determinants of financial difficulties. People who tend to spend more than they earn are also very likely to experience financial difficulties. Financial literacy, income and wealth are not significant in the first model. In the second part, we find that the people who are hit by external shocks are likely to overcome difficulties and avoid defaults, if they are financially literate, if their household income is high, and if their household size is large.

The study shows that if financial literacy and consciousness of cardholders can be increased with financial education, credit card problems will decline.

Tez Özeti

Tülin Araz, "Finansal Okuryazarlık ve Kredi Kartı Sorunları"

Bu tez finansal okuryazarlığın, kredi kartı sorunları üzerindeki etkisini incelemektedir. Bu çalışma özellikle, kredi kartlarının verimsiz kullanılmasının mı yoksa beklenmeyen dış şokların mı finansal zorluklara ve kredi kartı temerrütlerine yol açtığını sorgulamaktadır. Temel açıklayıcı değişkenimiz olan finansal okuryazarlık üç boyutta tanımlanmıştır: bilgi (kart sahibinin finansal bilgisi), sofistikelik seviyesi (kart sahibinin finansal pazara entegre olma seviyesi) ve aktiflik (kart sahibinin finansal bilgilerini finans ile ilgili kararlarda uygulama seviyesi).

Tez 2 aşamalı analizden oluşmaktadır. İlk aşamada sıralı probit modeli ile kart kullanıcılarının karşılaştıkları finansal zorlukların nedenlerini açıklıyoruz. Finansal zorlukları, kart kullanıcısının bir yıl içerisinde minimum ödeme tutarından daha az ödeme yaptığı ay sayısı ile temsil ediyoruz. İkinci aşamada ise ikili lojit modeli ile kart temerrütlerininin belirleyici nedenlerini açıklıyoruz. Açıklayıcı değişkenler olarak finansal okuryazarlık değişkenlerini, kart sahibinin harcama eğilimini, beklenmeyen şokları, sosyo-ekonomik ve demografik değişkenleri kullandık.

Dış şokların finansal zorluklarda önemli belirleyiciler olduğunu bulduk. Kazandığından daha fazla harcamaya eğilimlí olan kişiler de daha çok finansal zorluklar yaşıyorlar. Finansal okuryazarlık, gelir ve zenginlik ilk modelde etkili değiller. İkinci aşama ise dış etkenlere maruz kalan kişilerin, finansal okuryazarlıkları varsa, gelirleri ve hane halkı sayıları yüksekse finansal zorlukların üstesinden geldiklerini ve temmerrüde düşmediklerini göstermektedir.

Tez, kişilerin finansal okuryazarlıklarının ve bilinçlerinin finansal eğitimle yükseltilebilmesi durumunda kredi kartı sorunlarının azalacağını göstermektedir.

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CHAPTER 1

INTRODUCTION

Credit cards are both payment and credit instruments. As a payment instrument, credit cards allow cardholders to purchase goods and services without using cash and make their payments at the end of the interest-free grace period. Besides the security and convenience of not carrying cash, credit cards enable consumers to make purchases over the Internet and telephone, and offer benefits like bonuses, rewards, shopping miles, etc. Credit cards are also a very convenient credit instrument, especially for short-term and small amount of borrowings. They provide an easy and quick access to credit in case of temporary liquidity shortages. Via installments and by allowing to revolve and postpone payments to a future date, credit cards enable cardholders to smooth their consumption, and thus improve their welfare. All these benefits led, as in many other countries, to a tremendous expansion in the Turkish credit card market in the last decade. Table 1 shows the rapid growth in the number and transaction volume of credit cards in Turkey between 2003 and 2011.

Table 1: Number and Transaction Volume of Credit Cards in Turkey[1]

Year	No. of Credit Cards	Transaction Volume (mil TL)
2003	19,863,460	40,334
2004	26,681,128	65,688
2005	29,978,243	86,494
2006	32,433,333	109,159
2007	37,335,179	142,787
2008	43,394,025	186,549
2009	44,392,614	204,742
2010	46,956,124	236,472
2011	51,360,809	293,819

[1] http://www.bkm.com.tr/yillara-gore-istatistiki-bilgiler.aspx

However, the rising incidence of credit card defaults in the first half of 2000s gave rise to severe criticisms against credit card issuing banks. They were alleged to encourage excessive consumption and borrowing, charge very high interest rates, and exploit consumers, especially the unsophisticated ones. Indeed, it has been documented that credit cards increase consumers' spending. Richard Feinberg (1986) investigated the difference between the spending behavior of people who use credit cards and who use cash both in observatory and laboratory settings. He arrived at the conclusion that credit cards shorten the time for decision but increase the money spent in purchases. Likewise, with a nationwide credit card consumer survey, Akin et al. (2009) find that 56% of the respondents believe that they make unnecessary shopping because they have credit cards.

In response to those criticisms, credit card regulations on interchange fees and interest rates were enacted in 2005 and 2006, respectively. The Law of Bank Cards and Credit Cards, which was enacted in 2006, aimed at preventing banks from exploiting their customers. The regulation dictates that the credit limit of a customer is determined based on her socio-economic status, monthly or yearly average income, and the results of a scoring system. Commissions, annual fees and interest rates of revolving credits should be made clear in contracts, which are printed in certain font size, prior to owning a credit card. Following the regulation, the Central Bank of the Republic of Turkey set an upper limit for credit card interest rates according to market dynamics. Although these regulations led to significant falls in interchange fees and credit card interest rates, and hence in banks' market power (Akin et al. 2012a,b), credit card default incidence did not decline. On the contrary, as seen in Table 2, except for the fall in 2006 the default incidence rose to even

higher levels afterwards. These results suggest that the credit card problems may also stem from the behavior and decisions of consumers.

Table 2: Number of Defaults in Turkey[2]

Year	Number of defaults*	Percentage of defaults**
2003	25,552	0.23%
2004	44,322	0.30%
2005	123,132	0.70%
2006	52,900	0.31%
2007	118,656	0.67%
2008	278,140	1.22%
2009	405,413	2.01%
2010	365,123	1.71%

*As notifications are based on the number of cardholder, a cardholder can have only one record in a year.

** The number of cardholders is estimated by dividing the number of cards by the average number of cards a cardholder has. The latter is obtained from the yearly surveys of the Interbank Card Center (ICC 2005, 2011).

In this thesis, using the Credit Card Consumer Survey (Akin et al. 2009) conducted among 2,576 credit card users in Turkey in May 2009, we investigate the effect of financial literacy on credit card related problems in a two-part analysis. In the first part, we examine the factors that may cause financial difficulties with an ordered probit model. We proxy financial difficulties by the number of months a cardholder makes no payment or makes a payment less than the minimum amount in the last twelve months. As this is an extremely costly alternative of borrowing, we interpret it to be a consequence of some kind of financial difficulty. As likely determinants we test unexpected income/expenditure shocks and some measures of financial literacy and rationality. We also control for some demographic and socioeconomic characteristics.

[2] *The Central Bank of the Republic of Turkey* http://www.tcmb.gov.tr

Financial difficulties can be either the result of some unavoidable income or expenditure shocks, or they can be due to financial illiteracy and/or irrationality on the part of cardholders that may lead to wrong and inefficient financial decisions. We define financial literacy in three dimensions: information, which measures the financial knowledge of a cardholder; sophistication level, which measures how much a cardholder is involved in financial markets and banking; and activeness, which measures the extent to which a cardholder uses her financial knowledge in finance related decisions.

We make inferences about rationality using the answers given by interviewees to the question "What is the reason for paying less than the minimum amount due?" Table 3 shows the frequency of those answers. As the most important reason, 55.6% of the respondents say that their income is not enough to cover their expenses in general. That is, these respondents do not have financial problems due to some temporary and unexpected circumstances, but because they have long-term structural financial problems. As this shows that these respondents could not strike a balance between their income and expenditures in general, and try to solve their structural financial problems with an extremely costly financing method, we interpret this situation as an indication of some form of irrationality.

Table 3: Frequency of Answers to "What is The Reason For Making Less Than The Minimum Amount Due?[3]

	Freq.	Perc.
My income is not enough to cover my expenses in general	299	55.6%
An unexpected situation that negatively affected my income occurred, such as job loss, late salary payment, etc.	258	48.0%
I decided to spread some credit card spending over time	158	29.4%
I spent more than I intended	145	27.0%
An unexpected necessary spending came up, such as an illness or an accident	101	18.8%

In the second part, we investigate the factors that may lead cardholders to default with a binary logit model. The cardholder is considered to have defaulted if she receives a written notice from her card's issuing bank and according to Law No: 5464 (Article No: 8, accepted on 23.02.2006) the cardholder may receive the written notice if she does not pay at least the minimum amount for three consecutive months. We use the same set of independent variables in the second part as in the first part.

The results of our first part analysis illustrate that financial literacy cannot preclude having financial difficulties. Income and expenditure shocks are significant reasons for financial difficulties. Those who tend to spend more than their income in general and those who point out their insufficient income as the reason for not paying the full amount of their credit card bills are also significantly likely to have financial difficulties. Income is not significant, age is negatively significant and total credit card limit is positively significant for the likelihood of experiencing financial difficulties.

[3] This survey question is asked only to the respondents who have made less than the minimum payment requirement for at least one month and the number of observations is 538.

The results of the second part analysis are quite interesting. Income shocks significantly increase the likelihood of default, whereas expenditure shocks do not, as the latter are generally of shorter-term. Those who point out insufficient income as the reason for not paying the total amount of credit card bills are likely to default too. However, those who are financially more literate are likely to resolve their financial problems without defaulting. Two components of financial literacy, information and sophistication, significantly reduce the probability of default, whereas activeness comes out to be insignificant. Household income and household size also help to recover from financial difficulties without default. Women, old people and retired people are also less likely to default. Our results suggest that if financial consciousness and financial literacy of consumers are improved, credit card related problems will decline.

The next chapter presents a summary on the related literature. Chapter three explains the data and the sampling method. The fourth chapter provides the summary statistics, explains the variables and the empirical methodology of the study. The fifth chapter discusses the results of the model. The last chapter concludes.

CHAPTER 2

LITERATURE REVIEW

Financial literacy is a worldwide hot topic in developed and developing countries. The importance of financial literacy and its relationship with defaults is emphasized. First of all, it is better to specify what financial literacy is. In literature, there does not exist an unique definition of financial literacy; however, there is a generally accepted definition put forward by OECD (Organisation for Economic Co-operation and Development): "Financial Literacy is the combination of consumers'/investors' understanding of financial products and concepts and their ability and confidence to appreciate financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being". Financial literacy is not only the knowledge but also the ability to use this knowledge in making finance related decisions. The lack of financial literacy is held responsible for the debt behaviors and card defaults. This is clearly seen from President George W. Bush's words: "There needs to be financial education measures in place" when he is asked about the dire home mortgage foreclosure rates of 2007[4]. Furthermore, Federal Reserve Board Governor Frederic Mishkin also emphasized the importance of financial literacy with his words:

> There can hardly be a better time to make the case for economic and financial literacy than right now... [W]e face a downturn... fueled, at least in part, by unwise mortgage borrowing... [A] better informed citizenry would likely have resulted in more-prudent decision making and... less harm to the economy.[5].

[4] "Against Financial Literacy Education", Lauren E. Willis, March 2008, pg. 199

[5] "Against Financial Literacy Education", Lauren E. Willis, March 2008, pg. 2

It is also asserted that financial literacy has a significant effect on the economic crisis experienced in USA/ Europe besides the individual financial problems. If the individuals of a country have the skills to make informed decisions related to their investments, consumption and debts, the probability of experiencing economical crisis for that country decreases. Moreover, improvement in the financial literacy level of individuals not only augments the wellbeing of individuals, but also contributes to the improvement in the social welfare. It makes financial markets operate efficiently, and thereby maintains financial and economic stability of the country. Many central banks, which regard financial stability as the supplementary goal to the main goal of price stability, stand in the forefront of studies on financial education. In addition to the central banks, international organizations also embarked upon studies on financial education. OECD (Organization for Economic Co-operation and Development) has given many conferences about financial literacy, such as the one named "Financial Education for All", given on 27-28 October 2011 to emphasize the importance of financial education. Furthermore, in March 2008 it established the web-site (www.financial-education.org) with the name of "*International Gateway on Financial Education*" and founded the international working group called INFE (International Network on Financial Education) from experts on financial education who work in the public sector. Turkey, one of 68 members of INFE, is also aware of the importance of financial literacy. Central Bank of the Republic of Turkey has also laid emphasis on financial awareness and financial education in Financial Stability Report December 2010. Interbank Card Center[6] has constructed the web site (www.bkm.com.tr) that contains useful

[6] Interbank Card Center is the institution that is "established in 1990 with the partnership of 13 public and private Turkish banks to provide solutions to the common problems and develop the

information about credit cards, campaigns and articles about credit card awareness to enlighten the card holders about credit and debit cards.

After defining and emphasizing the importance of financial literacy, a question mark may appear in minds: how do we measure financial literacy? In literature there is no consistent measurement; however, generally the number of correct answers given to finance related questions is used as the proxy for measuring financial literacy.

There actually are few studies that analyze the relationship between financial literacy and credit card defaults, and even less so in the Turkish case. Nevertheless, in the literature, there are a number of studies on financial literacy and a strand of literature on defaults. These can be categorized into three groups: The first group of studies analyzes financial literacy as the dependent variable and explains it with some demographic and socioeconomic variables, the second line of studies analyzes the factors that affect the default, debt behavior of the individuals and the last group takes financial literacy as independent variable and explains variation in some financial outcomes such as debt, delinquencies/defaults, saving and investing. The rest of this chapter gives an overview of these three lines of literature.

Factors Affecting Financial Literacy

In this line of studies financial literacy is taken as the dependent variable and explained by some socioeconomic and demographic variables.

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rules and standards of credit and debit cards in Turkey, within the card payment system" (www.bkm.com.tr).

Lachance et al. (2006) studied the factors that influence the credit knowledge of the adults. The results reveal that personal income is the main determinant of credit knowledge, consistent with Cliff A. Robb's finding (2007) that students whose parents' income is higher have higher financial knowledge than those that have parents' with lower income. Chen and Volpe (1998) who study the financial literacy of college students also conclude with the same result: income has a positive effect on literacy. Gender also has a significant effect on financial literacy. Joyce E. Jones (2005) concludes that females know less about finance than males do. Furthermore, Chen and Volpe (1998) show that there is a slight correlation between being female and getting lower scores on financial knowledge measures.

Among demographic variables, race is also found to have a statistically significant influence on financial knowledge. Jones (2005) finds that white students get higher scores than non-white students (African American, Native-American, Hispanic, Asian, etc.) in financial literacy tests. This finding is consistent with the work of Cliff A. Robb (2007) who comes to the conclusion that being non-white is associated with having lower financial knowledge.

Being a business major is also statistically significant in explaining financial literacy. Chen and Volpe (1998) report that business majors have higher levels of financial knowledge. This may be related to the fact that the curriculum of business administration includes more finance related courses than other majors. Consistently, Robb (2007) concludes that students who are familiar with financial courses are more knowledgeable than the ones who have not taken any finance related courses. The study by Chen and Volpe (1998) reports that class rank is also significant: graduate students know more than undergraduates and seniors; juniors know more than the lower ranks. Besides, Lachance et al. (2006) find that respondents who

learnt finance mainly from finance related courses are more likely to be more knowledgeable about sources of credit than those who have learnt by trial and error or from parents/ relatives. This indicates that financial education can improve one's financial knowledge and this is consistent with Courchane and Zorn's findings (2005) that providing learning opportunities enhance financial knowledge. Policy makers and consumer protection agencies should prepare some education programs especially about credit cards and other borrowing sources to increase financial literacy of individuals.

According to the study by Lachance et al. (2006), besides income and course effects, number of debts, amount of total debt, number of credit cards held, perception of personal competence in personal finances and attitudes toward credit and debts are also positively correlated with the level of credit knowledge.

For brevity, this line of study shows that income is positively and being female is negatively related with the level of financial knowledge. It is also shown that the level of financial knowledge can be improved with financial education and counseling.

Defaults and Its Determinants

This part of the literature studies mainly defaults/ delinquencies caused because of credit card debts or other debts. This line of study tries to find out the determinants of defaults.

Among demographic variables, age is found to have a negative impact on defaults. Since having higher debt increases the likelihood of facing default, this

finding is consistent with the outcome of Schooley and Worden (2010), the probability of participating in the consumer debt market depends on the stage of life-cycle[7] and younger households are more prone to have consumer debt than mature couples. These outcomes match with regression results of Calem and Mester (1995) that older cardholders have lower probability of being delinquent.

As could be expected, income is also found to have a significant effect on delinquencies/ defaults. Chien and Devaney (2001) conclude that households with lower income are more likely to have higher outstanding credit card balances. Due to the fact that higher outstanding credit card balances may generally result in delinquencies/ defaults, it can be said that households with lower income are more likely to face delinquencies/ defaults. Stavins (2000) also finds that having higher income or net worth lowers the likelihood of delinquency.

Marital status is also found to be significantly effective on delinquencies/ defaults. However, its effect is ambiguous since it is found positively significant in some studies and negatively significant in some others. Chien and Devaney (2001) reported that married cardholders are more likely to have higher outstanding credit card balances which increase the probability of facing delinquency/ defaults. Consistent with Schooley and Worden's (2010) results, as households get married and children are born, consumer expenditures go beyond disposable income. On the other hand, Stavins (2000) concludes that being married significantly decreases the probability of being delinquent.

Besides these demographic control variables, there are various other variables used to explain variations in delinquencies/ defaults.

[7] Life cycle is analyzed in eight stages according to age, marital status, and the presence of children.

Dunn and Kim (1999) use 1) the ratio of total minimum required payments to income, 2) number of credit cards that have reached credit limits and the ratios of total balance carried over after most recent payment 3) to income and 4) to total credit line to explain variations on card defaults. Except the ratio of total credit card debt to income, all variables are found to be statistically significant at 1% level, and have positive impact on the likelihood of credit card defaults. Similarly, Erdem (2008) uses total credit card debt to income ratio in his study. The results show that as total credit card debt to income ratio increases so does the likelihood of experiencing default. There is a strong and positive correlation between the ratio of total credit card debt to income and credit card defaults. The findings indicate that balance to income ratio has the highest marginal effect on the likelihood of the defaults. These results are consistent with Calem and Mester's (1995) finding that cardholders with larger credit card balances are more likely to have difficulties in repaying their credit card debts. Moreover, Erdem (2008) also adds the proportional payment of expenses with credit cards to the model, and finds out that this variable has a negative influence on defaults. In other words, this variable increases the probability of not missing the minimum payment of any credit card.

Credit attitude is also identified as one of the key determinants of credit card defaults. Attitude toward credit use is measured with questions like whether it is right for the respondents to borrow to purchase luxury goods/services or to cover living expenses when their income is cut. Schooley and Worden (2010) report that there is a strong effect between the credit attitude and the consumer debt burden. The authors conclude that those who believe it is all right to borrow for luxury items or to cover living expenses are much more likely to use consumer credit and have a higher consumer debt burden. Consistent with the findings of Chien and Devaney (2001),

an increase in the specific attitude index increases the likelihood that cardholders will hold higher credit card balances. As indicated before having higher credit card balances/ any debt burdens increase the likelihood of experiencing delinquency/default, it can be said that credit attitude is positively correlated with delinquencies and defaults.

Besides these variables, defaults are explained with macroeconomic factors. Ausubel (1997) reports that defaults and bankruptcies move upward in recessions and downward during economic booms. He demonstrates that the ratio of debt to disposable income is also important, and raises the likelihood of credit card defaults. On the other hand, Agarwal and Lui (2003) explain variation in consumer delinquencies and bankruptcies with county unemployment. They find out that county unemployment rates significantly affect the delinquency rates positively.

Financial Knowledge and Its Effects on Financial Outcomes

In this group of studies, financial literacy is taken as the independent variable and is added to the model to explain some financial outcomes such as default/delinquency, savings, investments and debt behavior. The literature suggests that the more a person gets involved in financial markets, the more she is financially literate. The studies also suggest that financial education can increase financial literacy and hence the financial welfare of people. The crucial finding is that there is a significant impact of financial literacy on the debt behavior/ default/delinquency.

Hogarth et al. (2002) are interested in how much the cardholders are involved in financial markets and how sophisticated they are. They use financial products such as checking accounts, savings accounts, mutual funds and company pension plans to

measure the cardholders' sophistication level. In this study financial behaviors indicate how careful and organized the cardholders are about their debt management. The authors conclude that financial knowledge is associated with a decreased probability of being lost (being below the median for the proportion of financial products held as well as the proportion of financial behaviors taken). For brevity, the study concludes that the more a person is involved in financial market (has a higher sophistication level) the more she improves her financial behavior.

Norvilitis et al.(2006) aim to analyze effects of the personality, financial knowledge, and demographic risk factors on credit card debt. They find that significant predictors of debt are number of major credit cards, age, lack of financial knowledge, delay of gratification, and credit-card use. The findings demonstrate that there exists a positive relationship between higher levels of debt, low financial well-being, higher levels of stress, and longer projected periods of debt. According to this study, the students reporting greater debt report higher stress and lower financial well-being. Besides this paper, in 2003 Norvilitis published another paper about factors influencing the college students' credit card debts with Szablicki and Wilson. The most important outcome of this paper indicates that college students who got their cards via on-campus solicitation are more likely to have high debt-to-income ratio than the students who received their cards from other sources. The results of both studies emphasize the need for comprehensive financial literacy education among college students. The outcomes are in the same line with our expected results.

Robb (2007) studies college students and their credit card use in 2007 and tries to answer how the college students use their credit cards and which factors are effective on the financial knowledge of the students. Unlike other studies he uses a double-hurdle model in which for the first stage, the dichotomous variable that shows

whether the student revolves balance or not is used and for the second stage the continuous variable that shows the extent to which the students revolved is used. He tries to explain indebtedness of students with financial knowledge, finance related courses taken, financial independency, majors, and some demographic and social variables. In this study the number of correct answers given to the six key questions, each related to a different element of personal finance, is used as the proxy for financial knowledge. Financial knowledge is found to be statistically significant in the second stage, though not in the first stage of the model. This suggests that personal financial knowledge does not have any statistically significant impact on the decision to revolve; on the other hand, looking at the cardholders who decide to revolve, surprisingly personal financial knowledge is positively related to the logarithm of the balance a student chooses to carry. This means that among the revolvers as financial knowledge increases, the balance a student wishes to carry also increases. The course related to personal finance is found to be insignificant in both stages. Oppositely, class effects are statistically significant in both stages of the model. When compared with the graduated students the juniors and seniors are noted as being more likely to revolve a balance. This is reasonable since the studies in the literature suggest that the individual's education level is often used as the proxy for knowledge and generally financial knowledge has a substantial impact on the development of credit attitudes (Meeks and Zhu 1994; Chien and Devaney 2001). Moreover, business majors are less likely to have a revolving balance when compared with other majors. Despite the significant differences between the business majors and others in the first stage of the model, no differences are observed in the second stage regarding the individuals' majors.

Courchane and Zorn (2005) study consumer literacy and credit worthiness. Their study investigates whether consumer literacy impacts credit worthiness, consumer literacy impacts financial behavior and if so whether the improved literacy improves behavior and finally whether financial behaviors impact the likelihood of having impaired credit. They analyze financial knowledge in two dimensions: self-assessed knowledge and objectively-assessed knowledge. Self-assessed knowledge is proxied by the responses given to the questions like how much they know about the interest rate, financial transaction charges, credit terms, credit ratings and credit files, managing finances and finally investing money. Objectively-assessed knowledge is proxied by the correct answers given to the financial knowledge quiz. They construct four models and four different dependent variables for each model which are: self-assessed knowledge, objectively-assessed knowledge, financial self control and impaired credit. The most crucial determinant of financial behavior/ self control is self-assessed knowledge and some of the other results are that borrowers who get counseling have lower probability of delinquency and providing learning opportunities can enhance financial knowledge. They also conclude that credit outcomes can change; furthermore, improved knowledge can result in better financial behaviors and improved credit outcomes.

Lusardi and Tufano (2009) study debt literacy and its effect on debt loads by using the survey data with questions that measure debt literacy, financial experiences and self-assessment about the extent of their indebtedness. In their study, debt literacy is proxied by three questions of which the first one is measuring compounding interest, second is measuring credit card outstanding payment, and third is measuring how skillful they are in comparing the payment options. Their

results show that debt literacy is very low and many respondents do not comprehend how the interest and payments of credit cards function. Most importantly, they report that debt literacy is related to the financial experiences that people have had. This is consistent with our measurement of financial literacy, since we use the financial experiences as one of the dimension for literacy. In addition to this relationship, they demonstrate that there exists a strong link between debt literacy and debt loads. They conclude that individuals with lower levels of debt literacy are prone to make most costly decisions, incur higher fees and end with high-cost borrowing, consistent with the work of Moore (2003) who finds out that less financially literate respondents are more likely to have costly mortgages. In addition to debt literacy, she mostly studies household saving behavior, retirement planning, emphasizes the significant role of financial literacy on rational saving plans. She has written about four or more papers about this topic. She stresses the significant impact of financial literacy on financial decisions in her papers, consistent with findings of Hilgerth, Hogarth and Beverly (2003) that demonstrates a strong relationship between financial knowledge and financial behavior.

As a conclusion, the outcomes suggest that in order to decrease the defaults and increase the economic welfare of the individuals, the consumption protection agencies or even banks should prepare educational programs to increase the financial literacy of the citizens.

CHAPTER 3

DATA

Survey Sampling

The data for this study was obtained from the Credit Card Consumer Survey (Akin et al. 2009), a nationwide survey on credit card usage conducted on 2576 random cardholders from diverse cities in Turkey between April and June 2009[8]. The survey was designed to analyze the credit card market from the demand side. The survey includes questions related to bank choice, credit card choice, credit card usage, financial situation and demographic characteristics of the cardholders.

The Targeted Population

The targeted population was adult credit card users from urban areas in Turkey since most of the firms and companies accepting credit cards are located in urban areas. The usage of credit cards in rural areas is very limited due to the lack of "point of sale" (POS) machines. Thus, the survey was conducted to the population aged over 18 in the urban areas. The registered urban voters of the 2007 local elections were used as proxy for the regions' urban adult population.

[8] English and Turkish versions of the survey are available in the Appendix B.

Sampling Technique

The regional distribution of the entire sample was performed according to NUTS2 which analyzes the country in 26 regions that show heterogeneity within themselves.

The geographical distribution of credit cardholders among Turkey is not known for sure; therefore; some proxies are used to determine the number of surveys that were to be conducted in each region. The weighted average of the share of POS machines and bank branches are used as the proxy in sampling of credit cardholders. It is thought that the number of POS machines is an important determinant for the card usage and is a good proxy since it is known for each region. However, some regions such as touristic regions have more POS machines than local users demand. In order to avoid such an upward bias, share of bank branches was also used as the proxy. The number of bank branches is also positively related to the credit card holders since credit cards are one of the bank services. However, number of bank branches can be misleading when it is used in isolation. In some regions there may be more branches than the economy needs (especially the branches of state banks), since some nonprofit situations may cause state banks to open additional branches. Therefore, the arithmetic mean of weights of the number of POS machines and bank branches was calculated and then multiplied by 2500 to distribute the sample to the 26 NUTS2 regions.

After the distribution of surveys to each NUTS2 region, it was seen that there were four regions with less than 30 surveys: Ağrı, Kastamonu, Mardin and Van. To

avoid inefficiency, the surveys assigned to these provinces were redistributed proportionally to other regions within the same NUTS1[9] level.

After this step, the province centers where the surveys were be conducted were chosen randomly in each region after removing provinces weighted less than 25 percent within that particular region. The provinces where surveys were conducted are listed on Table 4 with survey numbers.

Table 4: The number of surveys conducted in selected provinces

Province	Number of Surveys
Istanbul	687
Ankara	234
Izmir*	194
Antalya*	129
Bursa*	128
Denizli	121
Icel*	121
Kocaeli*	108
Samsun*	98
Manisa*	87
Trabzon	82
Balikesir	73
Konya	65
Kayseri	64
Gaziantep	63
Hatay*	60
Edirne	54
Malatya	49
Diyarbakir	44
Zonguldak	40
Nevşehir	38
Erzurum	37
TOTAL	2576

* The surveys were conducted in towns in these provinces.

After selecting provinces, the cities where the surveys were to be conducted were decided on for each province. In provinces, the central city of the province, which is

[9] NUTS1 examines the country in 12 main regions includes provinces that have similar features.

usually the largest urban area, was chosen for the sampling. Furthermore, some provinces had sizeable towns and some of them were selected for sampling. If the province had a large enough non-central city urban population to receive at least 30 surveys and at least one town with a minimum of 45,000 adults in the province, one town or two towns were chosen depending on the number of surveys that could be distributed to the non-central urban areas. These selected towns are listed on Table 5.

Table 5: Number of surveys conducted in selected towns

Province	Town	Number of Surveys
Antalya	Alanya	29
Samsun	Bafra	30
Kocaeli	Derince	30
Kocaeli	Gebze	30
Bursa	İnegöl	30
Hatay	İskenderun	28
Izmir	Ödemiş	32
Içel	Tarsus	30
Manisa	Turgutlu	31

In selecting the households, clustered random sample selection method was used. Cluster points were based on quarters and cluster size was decided as ten, which indicates that a maximum of ten surveys were aimed in each quarter. Quarters were randomly selected depending on the weights proportional to the size that was calculated according to the last voting registration. In the first step, 250 quarters were chosen by this method assuming that cluster and sample sizes would be 10 and 250, respectively. As backup, 50 additional quarters were determined. Streets were selected randomly according to the street data obtained from the ministry of finance. Five main and two backup streets were determined for each quarter and two surveys were aimed for each street.

In each street, the first household was selected randomly. If the first household was not at home or denied to answer the survey or was not eligible for the survey, a new household was chosen by skipping three residences. The last step was selecting the cardholders to conduct the survey among the household members. Respondents who owned at least one credit card and had made the decisions that were related to the choice of credit card and payment of the card bills were chosen for the survey. If there was more than one person who was eligible for the survey, then one based on the alphabetic order of their names was selected. The response rate of eligible people was 65 %.

CHAPTER 4

METHODOLOGY

We investigate the impact of cardholders' inefficient usage of credit cards on credit card related problems. There are two types of cardholders: Convenience users and revolvers. Convenience users use their cards only as a payment instrument, whereas revolvers also use the credit option of their cards. In our study, we categorize the cardholders as revolvers if they have not paid the full amount of their credit cards' bill for at least one month, except for the cases where the cardholder does so because she forgets the due date of the payment[10]. We are interested in the debt behavior of revolvers, so we use the data of 794 revolvers. We also exclude the cardholders who have a monthly income more than 20,000 TL to avoid extreme results. Due to some missing observations, our sample size reduces to 647.

We analyze the effect of inefficient credit card usage on financial difficulties and credit card defaults in two-parts. In the first part, an ordered probit model is estimated to determine the causes of financial difficulties. A binary logit model is used in the second part to determine the causes of defaults. The same set of explanatory variables is used in both parts.

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[10] In the study we group the cardholders as revolvers due to the answers given to these two questions:"Thinking of all your credit cards, in how many months out of the last 12 did you make a less-than-minimum payment?"(c152) and "In how many months out of the last 12 did you pay less than the total amount of your credit card bills but above the minimum amount?"(c161). We accept the cardholder as revolver if she gives any number between 1 and 12 as the answer two either of these two questions and we accepted the cardholder as convenience user if she has said zero as the answer to both of these questions. Besides these two questions, we also use the question that asks whether the cardholder paid all of her last credit card bills completely (c210), and named the cardholder as revolver if she said no to this question. Moreover, we try to catch the revolvers bu using the answer given to this question: "If there were any credit card bills you did not fully pay within the last twelve months, what was the maximum amount you did not pay?" The respondents who said any number greater than zero as an answer is accepted as revolver.

Ordered Probit Model

In the ordered probit model, our dependent variable, financial difficulty, is defined as the number of months the cardholder pays less than the minimum amount due within a year[11]. As explanatory variables we use financial literacy, rationality, external shocks and some socioeconomic and demographic control variables. This model will shed light on the likely causes of financial difficulties, such as financial illiteracy, not knowing how to use credit cards, tendency to overspend or some external shocks. Table 6 exhibits the frequency of the number of months in which no payment or a payment less than the minimum amount was made by the respondents:

Table 6: Number of Months Minimum Payment Requirement Was Not Met

Number of Months	Frequency	Percentage
0	242	32.44%
1	87	11.66%
2	151	20.24%
3	124	16.62%
4	51	6.84%
5	35	4.69%
6	45	6.03%
7	4	0.54%
8	5	0.67%
9	-	-
10	2	0.27%

In the survey respondents are also asked the underlying reason. Answers are listed on Table 7.

[11] We use the answer given to the question "Thinking of all your credit cards , in how many months out of the last 12 did you make a less-than-minimum payment?" (c152, in the survey) as the proxy for financial difficulties experienced by the respondents.

Table 7: Reasons For Not Paying The Minimum Amount[12]

	Freq.	Perc.
My income is not enough to cover my expenses in general	299	55.6%
An unexpected event that negatively affected my income occurred, such as job loss	258	48.0%
I decided to spread spending over time via credit card	158	29.4%
I spent more than I intended	145	27.0%
An unexpected necessary spending came up such as for an illness, or an accident	101	18.8%
I did not have opportunity to make payment	80	14.9%
I forgot the date of payment	70	13.0%

As seen in the table, more than half of the respondents declared that they paid less than the minimum amount because their income was not enough to cover their expenses in general. This shows their disability to strike a balance between their expenditures and income in general. Most of the cardholders do not know how to use credit cards. Credit cards can be a good credit instrument for temporary and unexpected shocks, for short-term and small amount of borrowings. Contrarily, trying to solve long-term financial problems with credit cards is an indication of some form of irrationality. Also, consumers should learn that for long-term or high amount of borrowings, consumer credits are much more convenient[13]. External shocks are also an important reason since 48% of the respondents claim that they are behind their card payments because an unexpected event that negatively affected their income has occurred.

[12] This survey question is asked only to the respondents who have made less than the minimum payment requirement for at least one month and the number of observations is 538.

[13] Consumer credits have fixed cost about 150 TL and interest rate of 1.94% at the time the survey was conducted,while the interest rate of credit cards was 4.71%.

The ordered probit model takes the form shown below:

$$Y_i^* = X_i\beta_1 + Z_i\beta_2 + W_i\beta_3 + V_i\beta_3 + \varepsilon_i$$

with

$$Yi \begin{cases} 0 \text{ if } & Y_i^* \leq \mu_0 \\ 1 \text{ if } & \mu_0 < Y_i^* \leq \mu_1 \\ 2 \text{ if } & \mu_1 < Y_i^* \leq \mu_2 \\ . & \\ . & \\ 10 \text{ if } & \mu_9 < Y_i^* \leq \mu_{10} \end{cases}$$

Where Y_i^* is assumed to reflect the actual value of the number of months in which less than the minimum payment requirement has been made by the cardholder i. X_i, Z_i, W_i and V_i are the financial literacy elements, irrationality measure, external shocks and other control variables respectively. β_1, β_2, β_3 and β_4 are the regression coefficients, ε_i is the error term and μ_j is the threshold parameter that the latent variable must cross to change the value of y. Y_i is the observed value of the dependent variable.

Binary Logit Model

In the binary logit model the dependent variable is formed by using the answers given to the question that asks respondents whether they have faced a credit card default. The dependent variable takes the value of 1 if the respondent has

experienced a default in the years 2008 or 2009 and 0 otherwise[14]. This dependent variable is chosen since a strong link exists between defaults and the number of times a cardholder did not meet the minimum payment requirement. If a cardholder does not pay at least the minimum amount for three consecutive months and receive a written notice from her card issuing bank, she will face a default. Some of those cardholders who did not meet the minimum requirement also defaulted and some could recover from those financial difficulties without defaulting. In other words, for some cardholders financial difficulties turned into default problems. We want to specifically examine whether financial literacy can help cardholders not to have financial difficulties or to recover from those difficulties without defaulting. Among those cardholders who experienced financial difficulties, the distribution of the ones who faced default by year is given on Table 8:

Table 8: Frequencies and Percentages of Respondents Who Faced Default

Default Year	Frequency	Percentage
1997	1	0.72 %
1998	1	0.72 %
1999	3	2.16 %
2000	6	4.32 %
2001	4	2.88 %
2002	4	2.88 %
2003	5	3.60 %
2004	6	4.32 %
2005	13	9.35 %
2006	15	10.79 %
2007	8	5.76 %
2008	32	23.02 %
2009	41	29.50 %

In the binary logit model the probability of facing default is calculated as follows:

[14] Since most of our explanatory variables are related to the last 12 months we want to use the proxy that estimate the defaults experienced in the last twelve months. However in the survey, it is asked whether the cardholder has ever faced a default (c226) and if yes, the year in which default has experienced(c227). We include the defaults experienced in the year 2008 too, since using the defaults experienced in 2009 as the proxy for the dependent variable would underestimate the defaults experienced in the last 12 months due to the fact that the survey was conducted between April- June 2009.

$$P_i(y_i=1)=\frac{e^{(\beta 0+\beta 1 xi+\beta 2 zi+\beta 3 wi)}}{1+e^{(\beta 0+\beta 1 xi+\beta 2 zi+\beta 3 wi)}}$$

P_i is the probability of facing default, and x_i is the matrix that includes three elements of financial literacy, z_i is the rationality measure, w_i is the matrix of unexpected income and expenditure shocks and v_i is the matrix of demographic and socio-economic characteristics of the cardholder i.

Discussion of the Explanatory Variables

In the study, debt behavior of revolvers is explained with financial literacy, rationality, income/ expenditure shocks, and some socioeconomic and demographic variables which are explained in detail below.

Financial Literacy: is forecasted with three groups of elements: financial information, sophistication and activeness.

- Financial information measures the financial knowledge of cardholders. In the literature there is no consistent way to measure financial knowledge. Nevertheless, most studies measure financial knowledge with questions that ask about basic concepts of finance such as compound interest, inflation, stock risk, etc. (Lusardi and Mitchell 2006). In this study the questions that are used to measure the knowledge are basic but related to fundamental concepts of credit cards and deposits: "What is the interest rate of your main card?", "What is the total annual fee of the cardholders' credit cards?", "How much of the bank deposits are under the guarantee of the state for every single depositor?". Three dummy variables: *interest_rate, annual_fee, deposit_insurance* are created for the answers given to these three questions respectively. *interest_rate* takes the value of 1 if the respondent's answer

falls between the values of his main card's true interest rate plus or minus 0.3, and 0 otherwise. We assume that the respondent knows the total annual fee of his credit cards if he says any number for the total value since it is hard to calculate the correct value. Therefore, *annual_fee* takes the value of 1 if the respondent says any amount for the total annual fee of his credit cards and 0 if the respondent says that he does not know the answer. *deposit_insurance* takes the value of 1 if the respondent says that up to 50.000 TL the deposit is under the guarantee of the state for each depositor and 0 otherwise. Definitions of these variables are summarized in Table 9. By using the principal component analysis these three variables are grouped to form a composite index named *information* which is capable of representing this group of variables by itself.

Table 9: Coding of Information Related Variables

Variable	Definition	Ques. Code
interest_rate	1 if respondent knows credit card interest rate, 0 ow	C168
annual_fee	1 if respondent knows annual fee of card, 0 ow	C228
deposit_insurance	1 if respondent knows how much of deposit is insured, 0 ow	C058

- Sophistication measures how much cardholders are involved in financial markets and how much they are experienced in banking sector. Sophistication measures the relationship of the cardholder with the banking system and shows whether the cardholder uses other products of the banks besides credit cards. As indicated in the study of Hogarth et al. (2002) individuals learn mostly from personal experience in financial markets. That is why sophistication level is also used as one of the proxies of financial literacy. Sophistication is measured with three questions: "Do you have an automatic payment order?", "How often (on a Likert type scale of 1

to 5) do you use internet banking?" and "Do you make tax and insurance payments via your bank?". With these questions we aim to measure the extent of a cardholders' involvement with the financial system. The replies to these questions are used to form three dummy variables *auto_order, tax_ins_payment and internet_banking. internet_banking* is a dummy variable that takes the value of 1 if the respondent answered the related question as 3, 4 or 5, and takes the value of 0 if the respondent answered the question as 1 or 2. Similar to *information, sophistication* is also formed by using the principal component analysis for these three variables listed on Table 10.

Table 10: Coding of Sophistication Level Related Variables

Variable	Definition	Ques. Code
auto_order	1 if respondent has any automatic order payment, 0 ow	C007
tax-ins_payment	1 if respondent makes tax or insurance payments via bank, 0 ow	C009
internet_banking	1 if respondent uses int. banking at 3,4 or 5 levels, 0 ow	C014

- Activeness: measures how cardholders use their knowledge about credit cards. Stephen Brobeck (2002)[15] notes the importance of how consumers use their knowledge by his question:

> Is the goal simply to expand consumer knowledge about the financial services marketplace and how consumers can best utilize this knowledge? Or, is the goal, more fundamentally, to improve the quality of consumer financial decisions -- to help ensure that consumers not only have adequate knowledge but also successfully apply this knowledge in decisions about spending, saving, and the use of credit?

For brevity, knowledge is important but applying the knowledge in decisions is also important; therefore, it is used as one of the dimensions of financial literacy. Elements of this group are measured by the answers given to the questions that ask

[15] Rewritten by Hogarth et al. (2002).

how they acquire their credit cards, how much research is conducted by cardholders for choosing their cards and whether they have attempted to reduce the annual fees of their cards. Three variables are created by using the responses given to these questions. Variables related to activeness are combined to form a composite index of activeness by using the principal component analysis. These variables are listed on Table 11.

Table 11: Coding of Activeness Related Variables

Variable	Definition	Ques. Code
acquisition	1 if the respondent has applied to/ received solicitation from the bank where she has account, and 0 if the respondent has applied to or received solicitation from the bank she has not	C127
research	Ranges from 1-5,measures how much respondent has researched before application to get her credit cards	C129
attempt	1 if respondent has ever attempted to reduce annual fees of credit cards,0 ow	C229

Summary statistics about these variables are listed on Table 12:

Table 12: Financial Literacy Elements

	Observation	Frequency	Percentage
interest_rate	647	50	7.7%
annual_fee	647	367	56.7%
deposit_insurance	647	80	12.4%
auto_order	647	188	29.1%
tax-ins_payment	647	65	10.1%
internet_banking	647	170	26.3%
acquisition	647	308	47.6%
attempt	647	122	18.9%
		Mean	Min/ Max
research	647	1.85	1/5

insufficient_income: is a dummy variable that takes the value of 1 if the respondent declares, as the reason for her failure to pay the total amount of the bills of her credit cards, that her income is not enough to cover her expenses in general, and 0

otherwise[16]. This variable signifies the cardholder's inability of striking a long-term balance between her expenditures and income. Credit cards are good borrowing instruments when they are used for overcoming temporary and short-term financial straits. If in general one spends more than she earns and finances herself with her credit cards, this shows in a way her irrationality, because this is an extremely costly way of borrowing and not sustainable.

income_shock is added to the model to see whether the revolver has been behind on card payments due to any unexpected situation that negatively affected her income such as job loss, late salary payment, etc. This is consistent with Ausubel's words (1997) "when job loss impairs a household's ability to repay its debts, the credit card borrowing is likely to be the first credit to go unpaid, perhaps followed soon thereafter by bankruptcy." In the study a dummy variable is formed to represent income shock and it takes the value of 1 if the cardholder declares, as the reason for her failure to pay the total amount of the bills of her credit cards, that an unexpected situation has occurred and 0 otherwise[17]. In the sample 48% of the cardholders (revolvers) faced an unexpected income shock.

expenditure_shock is used to see whether the revolver has missed card payments because an unexpected spending necessity came up, such as an illness or an accident. expenditure_shock is expected to have a positive impact on defaults as declared in the study of Domowitz and Sartain (1999) where health problems leading to medical debt are found to be one of the major factors that affects bankruptcy[18].

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[16] In the survey, *insufficient_income* is taken as 1 if the respodent answers yes to either of the questions with codes c159 and c166, and 0 if the respondent says no to both of the questions.

[17] *income_shock* is taken as 1 if the respodent answers yes to either of the questions with code numbers c155 and c162, and 0 if the respondent says no to both of the questions.

[18] Joanna Stavins (2000).

Expenditure shock is 1 if the respondent has missed card payments due to an unexpected spending and 0 otherwise[19]. The percentage of the revolvers that have experienced expenditure shock is 19%.

Control Variables

Other control variables included in the model are *single_card*, *totalcclimit*, *major_expense* and some socio-economic and demographic variables.

single_card is a dummy variable that takes the value of 1 if the cardholder has a single credit card and 0 if she has multiple cards. One can have multiple credit cards for several reasons. The credit limit granted by a single bank can be insufficient, and the cardholder may wish to increase her total limit by acquiring different cards from different banks. Alternatively, the cardholder may wish to take advantage of different benefits/campaigns, cutoff dates of different cards, or she may take them as a precaution for likely problems with other cards. If the first reason dominates we expect a negative coefficient for this variable because it implies that a cardholder with multiple cards tends to spend more than her income.

totalcclimit is a continuous variable that gives the sum of each owned credit card's limit[20]. This is thought to measure the tendency of cardholders to spend and is expected to have a positive impact on debt behaviors and defaults. However, as Dunn and Kim (1999) explained in their study, obtaining higher credit limit depends on the

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[19] *expenditure_shock* is taken as 1 if the respodent answers yes to either of the questions with code numbers c156 and c163, and 0 if the respondent says no to both of the questions.

[20] In the survey, we ask "What is the total of all your credit cards' limits?"(c231) and answer given to this question is used in the formation of *totalcclimit*.

banks' assessment of the cardholder's riskiness, so the higher credit limit a cardholder has, the less risky she is. Thus *totalcclimit* may also affect card defaults negatively. The outcomes of the model will show which effect dominates.

major_expense is a continuous variable that shows the fixed expenditures of the household. Major expense is calculated by summing up the average monthly kitchen expenses, expenditures including rent, heating, water, electricity, telephone bills, fixed payments such as for insurance, health and education expenses, and (if there is any) monthly bank debt payment, excluding the credit card debt[21]. Calem and Master (1995) found out that the ratio of major expense to income increases the probability of delinquency. We also expect that major expense is positively related to financial difficulties and default since major expense limits the remainder in income for savings and one is obliged to use the credit option of credit cards for unexpected urgent needs.

hhincome: is a continuous variable that exhibits the total monthly earnings of the household members. The cardholders that have more than 20000 TL household incomes are excluded from the model. The summary statistics for household income is listed on Table 13:

[21] *major_expense* is calculated by summing up the answers given to the questions with code numbers: c238, c239, c240 and c241 in the survey.

Table 13: Household Income Summary Statistics[22]

hhincome	Obs.	Perc.	Mean	Std.	Min.	Max.
0 - 500	11	1.7%	332	222.0	0	500
500 - 1000	124	19.2%	855	145.2	530	1000
1000 - 2000	263	40.6%	1617	300.9	1120	2000
2000 - 3000	131	20.2%	2687	288.7	2050	3000
3000 - 10000	117	18.0%	4649	1346.5	3200	10000
10000 - 20000	1	0.2%	12000	-	12000	12000
20000 - ∞	2	0.3%	33700	989.9	33000	34400

In the model, square of household income is also used to capture the potential nonlinear impact of household income.

age: is a continuous variable that shows the age of the respondent[23]. The summary statistics of the cardholders' age are exhibited on Table 14:

Table 14: Summary Statistics of Age of Households

Age range	Obs	Perc.	Mean	Std. Dev.	Min.	Max.
18 – 25	92	14.2%	23.0	1.79	19	25
26 – 35	231	35.7%	30.4	2.77	26	35
36 – 45	168	26.0%	40.1	2.84	36	45
46 – 55	113	17.5%	49.8	2.87	46	55
56 – 65	32	4.9%	59.9	3.04	56	65
66 - 100	8	1.2%	69.9	4.64	66	80

The square of age is also used in order to see the potential curvilinear effects of age in the model.

female stands for the gender of the cardholder (question code c249). It takes 1 if the cardholder is female and 0 otherwise. In the sample 24.9% of revolvers are female (161 out of 647 revolvers).

[22] In the survey answer given to (c245) is used for the values of hhincome and in the models household income is divided by 1000 to find out the effect of 1000 TL.

[23] *age* is calculated by subtracting the answer given to (c250) that asks the birth year of the respondent from the year 2009.

married : There are five groups of marital status: bachelor, married, widowed, divorced and living separately in the data (question code c251). The marital status of the sample is summarized on Table 15. Marital status is included in the model with the dummy variable *married* which takes 1 if the cardholder is married and 0 if cardholder is bachelor, widowed, divorced or living separately.

Table 15: Summary of Marital Status of Revolvers

Marital Status	Frequency	Percentage
Bachelor	164	25.3%
Married	455	70.3%
Widowed	17	2.6%
Divorced	10	1.5%
Living separately	1	0.2%
Total	647	100.0%

wealth: is a continuous variable. It is the sum of the total value of any motor vehicles such as automobiles, trucks and tractors and the total value of any property such as houses, summer houses and land[24]. The average wealth of the revolvers is 55,257.14 TL.

occupation: there are 13 categories for occupation in the survey, namely manager or specialist in the public sector, civil servant, worker in the public sector, manager or specialist in the private sector, worker or office worker in the private sector, big trader/industrialist, small trader/ craftsman, highly educated self employed (lawyer, doctor...),farmer, seasonal or irregular worker, left a job recently (less than six months ago), been looking for a job for more than six months and not employed-not looking for a job (question code c256). In this study we combined them into 7 groups and accordingly created 7 dummy variables listed on Table 16.

[24] *wealth* is calculated by summing up the answers given to the questions with code numbers: c247 and c248 in the survey.

Table 16: Occupation of The Cardholders

Variable	Definition	Freq.	Perc.
cservant	1 if the cardholder is a manager/specialist in the public sector, civil servant, or worker in the public sector, 0 ow	97	15.0%
self_employed.	1 if the cardholder is a big trader/industrialist, small trader/ craftsman, or highly educated self employed (lawyer, doctor), 0 ow	106	16.4%
private	1 if the cardholder is a manager or specialist in the private sector, worker or office worker in the private sector, 0 ow	271	41.9%
farm_season	1 if the cardholder is a farmer, seasonal or irregular worker, 0 ow	31	4.8%
unemployed	1 if the cardholder has left a job recently (less than six months ago), been looking for a job for more than six months	39	6.0%
retired_out_labor	1 if the cardholder is not employed, not looking for a job and retired, 0 ow	83	12.8%
unretired_out_labor	1 if the cardholder is unretired, not employed and not looking for a job, 0 ow	20	3.1%

education: the respondents are asked the highest graduation level they have obtained(question code c255). In the data, there are six education levels but we capture education with four groups: *primary, secondary, high school* and *university*. In *primary* category there are people who began primary school but have not finished and people who have graduated from primary school. The *secondary* category consists of people who have graduated from secondary school. *high_school* category includes the high school graduates. The *university* category consists of 2 or 4 year university graduates, and those with master or PHD degrees. Education level and frequencies are shown on Table 17:

Table 17: Education Level of Revolvers

Education Level	Frequency	Percentage
Primary	164	25.3%
Secondary	82	12.7%
High school	245	37.9%
University	156	24.1%

region: is comprised of four dummy variables: *coast, black_sea, middle_anatolia* and *east*. *coast* consists of Istanbul, Aegean, Mediterranean, East Marmara and West Marmara. *black_sea* includes the regions in Western and Middle Black Sea. *middle_anatolia* is comprised of Middle and West Anatolia. *east* is formed of East, North East and South East.

Table 18: Regions

Regions	Frequency	Percentage
Coast	461	71.3%
Black Sea	59	9.1%
Middle Anatolia	85	13.1%
East	42	6.5%

town: is a dummy variable that takes 1 if the cardholder is located in a town and 0 if she is located in a province center. In the sample 9.4% of the revolvers reside in towns and others in province center.

A correlation matrix is formed to catch any correlation between all of the variables used in the models, if there exists any. The correlation matrix is exhibited on Table 11 in the Appendix A.

CHAPTER 5

RESULTS

Ordered Probit Model

Our ordered probit model is supposed to determine the causes of financial difficulties. Financial difficulties are proxied by the number of months the cardholder does not pay at least the minimum amount due in her credit card in the last twelve months. The outcomes of the ordered probit model are exhibited on Table 19.

Table 19: Results of Ordered Probit Model
Dep. Var.: the number of months the cardholder does not pay at least the minimum amount due in her credit card in the last twelve months

Variables	Coef./(z-value)	p-value
information	-0.035 (0.46)	0.642
activeness	0.036 (0.48)	0.630
sophistication	-0.057 (0.75)	0.454
income_shock	0.519 (5.80)***	0.000
expenditure_shock	0.219 (2.07)**	0.038
insufficient_income	0.332 (3.70)***	0.000
major_expense	0.107 (1.57)	0.117
single_card	0.092 (0.97)	0.333
totalcclimit	0.011 (1.86)*	0.063
hhincome	-0.111 (1.25)	0.210
hhincomesq	0.006 (0.65)	0.519
hhsize	0.011 (0.33)	0.738

Table 19: Continued

	Variables	Coef./(z-value)	p-value
	wealth	0.000	0.520
		(0.64)	
	female	-0.013	0.903
		(0.12)	
	married	0.078	0.488
		(0.69)	
	age	-0.058	0.026
		(2.22)**	
	agesq	0.001	0.038
		(2.07)**	
	primary	0.007	0.963
		(0.05)	
	secondary	-0.035	0.831
		(0.21)	
	high_school	-0.101	0.402
		(0.84)	
	self_employed	0.090	0.580
		(0.55)	
	farm_season	0.144	0.539
		(0.61)	
	private	-0.091	0.505
		(0.67)	
	unemployed	-0.150	0.485
		(0.70)	
	retired_out_labor	-0.258	0.198
		(1.29)	
	unretired_out_labor	-0.163	0.563
		(0.58)	
	coast	0.257	0.164
		(1.39)	
	blacksea	0.273	0.237
		(1.18)	
	middle_anatolia	0.268	0.197
		(1.29)	
	town	0.110	0.456
		(0.74)	
cut1	_cons	-0.978	
		(1.74)*	
cut2	_cons	-0.646	
		(1.15)	
cut3	_cons	-0.068	

Table 19: Continued

	Variables	Coef./(z-value)	p-value
cut4	_cons	0.473	
		(0.84)	
cut5	_cons	0.785	
		(1.39)	
cut6	_cons	1.062	
		(1.88)*	
cut7	_cons	1.815	
		(3.15)***	
cut8	_cons	2.002	
		(3.43)***	
cut9	_cons	2.463	
		(3.98)***	
N		645	

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Financial literacy variables, *information, sophistication* and *activeness*, do not seem to affect the financial difficulties experienced by cardholders. That is, financially more literate people, who are financially more knowledgeable, more involved with the financial system and more active, do not seem to experience fewer financial problems. However, external shocks, *income_shock* and *expenditure_shock*, come out as the major determinants of those financial difficulties. When such shocks hit a cardholder, no matter how financially literate she is, she is likely to experience financial problems.

income_shock, which stands for the occurrence of an unexpected income shock like unemployment, is statistically significant at 1% level and has the highest positive coefficient. It can be interpreted as the number of months less than minimum payment has been made is heavily influenced by the income shock. If one faces an income shock then the ability of repaying credit debts will sharply decrease. As Ausubel (1997) notes in his study, job loss results in household's disability to repay its debts and the credit card borrowing is likely to be the first credit to go unpaid.

expenditure_shock such as spending caused by an unexpected accident is also statistically significant and has a positive coefficient. Expenditure shock lowers the disposable income of the cardholder; therefore, it results in delayed card payments. This result is consistent with Domowitz and Sartain (1999) where medical debt (expenditure shock) is one of the strongest contributors to bankruptcy.

Moreover, *insufficient_income,* which is a measure of the cardholder's irrationality, is also statistically positively significant. Those who could not strike a long-term balance between their income and expenditures, and who finance their long-term structural financial problems with credit cards are more likely to have troubles in their credit card payments.

Neither *single_card* nor *major_expense* has any significant effect on the dependent variable. *totalcclimit* is statistically significant at the 10% level, and has a positive effect which means that as total credit card limit of the cardholder increases the probability of facing financial difficulties also increase.

Interestingly, neither *hhincome* nor *wealth* significantly affects having financial difficulties. That is, any person, rich or poor, can experience financial difficulties, if he is hit by some external shocks, or if he spends more than he earns in general.

hhsize is statistically insignificant in this ordered probit model. One may not prefer to get help from household members until there is a legal problem, she may try to handle the financial straits by herself. Or it may due to the fact that as the household size increases the expenditures also increases.

Marital status does not have any effect on the dependent variable. It means that having a spouse does not influence being late on credit card payments. The reason is probably that it is not known whether the spouse works or not. If one has a

working spouse then *married* variable would have a negative coefficient since earnings increase; on the other hand, if one has an unemployed spouse then *married* variable is expected to have a positive coefficient since expenditures would increase instead of earnings. These opposite effects of marital status possibly neutralize each other and make *married* insignificant.

age and square of age are statistically significant. The negative coefficient of age implies that older cardholders are less likely have payment problems compared to younger ones. This may be due to the fact that as one gets older, he gets experienced in the financial markets and learns how to balance his budget. Another reason may be that as the person gets older, his income gets stable and expenditures decrease. Despite the statistical significance of age-squared it has no real influence on the dependent variable of this model since its coefficient is very close to zero.

Education level, which consists of four dummy variables: *primary, secondary, high school* and *university* (the base category) is found to be insignificant as shown on the table above. This outcome indicates that whether the person has graduated from primary school, secondary school, high school or university, if she gets in difficult circumstances she will delay credit card payments.

occupation has seven groups: self_employment, farming/seasonal work, private sector, unemployment, retired and out labor, unretired and out labor and public sector (the base category). The findings show that occupation like education level has no importance in this model. Whatever the person's job, if the person gets in a financial squeeze there is no way but borrowing, and using credit property of card is the easiest solution for this.

Region defined with four dummy variables: *coast, black sea, middle_anatolia* and *east* (the base category) does not show any impact on the dependent variable

either. This suggests that the region in which the cardholder resides does not affect his card payments. The outcomes of the model also make it clear that *town* is insignificant too. Like the region, being located in a town or a province center has no importance in the number of months one pays less than the minimum requirement.

Binary Logit Model

The second part of our model is supposed to show the determinants of credit card defaults. As dependent variable the dummy variable that shows whether the cardholder has faced any credit card default in years 2008 or 2009 is used in the model. The results of the binary logit model are given on Table 20:

Table 20: Results of binary logit model
Dep. Var.: The dummy variable that measures the presence of default and takes the value of 1 if the respondent has experienced a default in years 2008 or 2009, or 0 otherwise.

Variables	Coef./(z-value)	p-value
information	-0.616 (2.24)**	0.025
activeness	0.006 (0.02)	0.982
sophistication	-1.095 (3.02)***	0.003
income_shock	0.619 (1.89)*	0.058
expenditure_shock	0.341 (0.96)	0.335
insufficient_income	1.007 (2.88)***	0.004

Table 20: Continued:

major_expense	0.444 (1.90)*	0.058
single_card	-0.458 (1.36)	0.175
totalcclimit	0.005 (0.29)	0.770
hhincome	-0.508 (1.73)*	0.084
hhincomesq	0.057 (2.14)**	0.032
hhsize	-0.206 (1.73)*	0.084
wealth	0.001 (1.20)	0.231
female	-0.839 (1.91)*	0.056
married	0.002 (0.01)	0.996
age	-0.156 (1.90)*	0.057
agesq	0.002 (2.16)**	0.031
primary	0.205 (0.36)	0.722
secondary	0.655 (1.16)	0.247
high_school	0.250 (0.55)	0.585
self_employed	-0.940 (1.60)	0.110
farm_season	-0.521 (0.69)	0.487
private	-0.855 (1.80)*	0.072
unemployed	0.631 (1.02)	0.306
retired_out_labor	-2.226 (2.95)***	0.003
unretired_out_labor	-1.169 (0.98)	0.328
coast	-0.175 (0.30)	0.765
blacksea	-0.025 (0.03)	0.975

Table 20: Continued:

middle_anatolia	0.100	0.880
	(0.15)	
town	-1.153	0.101
	(1.64)	
_cons	0.981	0.591
	(0.54)	
N	647	

Of external shocks, income shock comes out to be an important determinant for defaults too. As their implications can last long, income shocks like job loss can lead a cardholder into default. On the other hand, expenditure shocks, since they probably have a shorter nature, do not come out to be as a significant factor for defaults. The most important result of our analysis is that even if such external shocks can hit and cause any cardholder to experience financial difficulties, the ones who are financially more literate can more easily overcome those difficulties and probably avoid default.

Of financial literacy variables, *information* and *sophistication* have negative and significant coefficients. Cardholders who are financially more knowledgeable and who are more involved in the financial sector are less likely to face default. Probably, as they learn more and get more experienced about financial matters, they give better and more efficient decisions, so that they can recover from their financial difficulties without defaulting. This result is consistent with Hogarth et al. (2002) who show that as a person is more involved in financial markets and thus have higher sophistication level, he has more efficient financial behavior. Activeness, on the other hand comes out to be insignificant in this model.

insufficient_income, which is some form of irrationality measure, is a very important determinant for defaults too. Those who spend more than their income in

general and choose to finance themselves with their credit cards are very likely to not only experience financial difficulties but also face credit card defaults.

Another factor that positively contributes to defaults is m*ajor_expense.* As indicated in the study by Calem and Master (1995), *major_expense* probably diminishes disposable income and lessens savings, so causes defaults.

Household income and household size are the factors that reduce the likelihood of facing defaults. Households with higher incomes can better cope with financial difficulties caused by external shocks, and avoid facing defaults. Contrarily, Dunn and Kim (1999), Calem and Master (1995) and Erdem (2008) find that income is not a significant factor for the probability of defaults in their studies. *hhsize* is also negatively significant, suggesting that family members support each other when one of them is exposed to such a legal problem. Another reason may be that, as the household size increases, for instance if the cardholder is married and has children, she may spend more deliberately since responsibility of the cardholder to other members of the household increases.

single_card and *totalcclimit* are statistically insignificant. Neither having more than one card nor the sum of all credit cards' limits does not matter in experiencing card defaults.

wealth, which is the total value of assets such as vehicle, house, and land, is insignificant in the model. This implies that wealth has no influence on the probability of facing card defaults. Dunn and Kim (1999) used homeownership as a proxy for wealth and they have also concluded that wealth has no effect on defaults.

female is significant and has a negative coefficient which indicates that women are less likely to face default in their credit cards. In contrast to this study, in the literature (Robb- 2007 is an example) females are found to be more likely to

revolve their balances and default. We find that women may have difficulties with their credit card payments like men do, but somehow they manage to handle their problems without facing default.

married is not significant as seen from the results. This suggests that marital status does not have a significant impact on card defaults. This is consistent with the literature since the studies of Calem and Master (1995) and Erdem (2008) suggest that marital status is not effective in delinquencies/defaults.

age is significant and has a negative coefficient, which implies that young cardholders are more likely to face defaults. As people get older and use more banking services they probably get more sophisticated and financially literate. As declared before another reason may be that as the person gets older, her income gets more stable and expenditures lessen. This finding is consistent with the study of Stavins (2000) that shows that older cardholders have a lower likelihood of being behind on their payments, holding all other factors constant. Square of age is also significant but its effect is not appreciable since the coefficient is close to zero.

Surprisingly variables directly related to education level: *primary, secondary* and *high_school* are statistically insignificant. As indicated before, *university* is omitted. This means that primary, secondary or high school graduates are not different than university graduates in credit card defaults. These findings are in line with the literature. Dunn and Kim (1999) and Erdem (2008) use education in their model to explain defaults, and find that education has actually no significant effect on defaults.

self_employed, farm_season, unemployed and *unretired_out_labor* are insignificant where *private* is significant and has negative coefficient. *cservant* (civil servant) is omitted in the model. This shows that relative to people who work in the

public sector, people who work in the private sector are less likely to default on their credit card payments. After controlling for income shocks, *unemployed* does not come out to be significant for the probability of default. Similar to unemployed people, it is expected that the farmers or seasonal workers are more likely to have problems in credit card payments; however, the results support the opposite. *retired_out_labor* is statistically significant and has a negative coefficient which shows that relative to the people who work in public sector, the ones who are retired and not looking for a job are less likely experience default.

There are four dummy region variables: *coast, blacksea, middle_anatolia* and *east*. In the model east is omitted. These region variables are not statistically significant meaning that regions are not different in terms of credit card defaults. *town* is also found to be insignificant in the model. Residence in a town or province center does not have any influence on the probability of default.

CHAPTER 6

ROBUSTNESS

The dependent variable in the binary logit model measures whether a default has taken place in years 2008 and 2009 since the explanatory variables are valid for the last 12 months the survey was conducted.

For the robustness test of the ordinary probit model, a binary logit model is used. Type of the revolvers is used as the dependent variable. As explained before, revolvers are the users who use the credit option of their cards. In this model, the revolvers are divided into two categories: non-risky and risky revolvers. Non-risky revolvers are the card holders who roll over their balance at most one month within the last twelve months. Risky revolvers are the ones who roll over their balance at least two months in the last twelve months. This two-month criterion is set since as written before the default procedure in Turkey starts if cardholder does not pay the minimum amount for at least three consecutive months and if the cardholder does not pay for two consecutive months the probability of facing default increases. It is hard to deduce whether the respondent rolls over for consecutive three months. But still using *two-month in the last twelve months* criterion is a good proxy for the risk classification of revolvers. The same set of explanatory variables are used in the ordered probit model are used. The findings are listed on Table 1 in the Appendix A. To summarize the results, it can be said that the significances and signs of coefficients are nearly same which indicates the similar outcomes. Age is negatively related to being a risky revolver; older people are less likely to be risky revolver. *insufficient_income* is positively related to being a risky-revolver. This implies that if one's income is not enough to cover her general needs then she is more probable to

be a risky revolver. The shocks increase the probability of being a risky revolver. None of the elements of literacy is significant in the model. Differently from the results of original ordered probit model, in this model *coast* is found to be positively significant at % 5 level, meaning that the revolvers locating in the coast have higher probability of being risky revolver than the ones residing in the *east* of Turkey[25]. It can be concluded that if one is exposed to financial troubles she may borrow via credit card and can delay payments even more than two months, it does not matter the level of literacy she has.

In the robustness test of the defaults, again binary logit model is used and this time the presence of defaults experienced in any year is taken as the dependent variable. It takes 1 if one has faced default and 0 if one has never experienced default during her life. The results are exhibited on Table 2 in the Appendix A.

Actually when these two binary logit models are compared, there is not any serious difference. There are some differences in socioeconomic and demographic variables which are used as control variables like household income, household size, marital status, age, occupation and town. *hhincome* and *hhsize* are found insignificant whereas they are negatively significant in the original binary logit that analyzes the presence of defaults. This means that household income and size are not effective on the likelihood of facing defaults. Besides the demographic and socioeconomic variables single_card which was insignificant in the previous model is found negatively significant in this model. This implies that if one has a single card it is less probable that she will default on her card payments. The findings of this model also

[25] The variable *coast* consists of Istanbul, Aegean, Mediterranean, East and West Marmara. The variable *east* (the base category) includes the regions in East, North East and South East of Turkey.

show that married and unemployed cardholders have higher probability of facing default. Residing in towns also decreases the likelihood of experiencing defaults.

The other explanatory variables have the same significance and similar coefficients. This model also proves that *information*, one of the dimensions of financial literacy lessens the probability of facing card defaults. The household may be in strained circumstances, but if its members have financial knowledge then they may save themselves from being confronted with defaults. Activeness is again insignificant, which means that actively using financial knowledge has no influence on the defaults. *sophistication* is statistically significant at 1%, and has a negative coefficient, as expected. If the person gets experienced in financial markets, she learns how to deal with her financial problems. She may borrow and even use credit option of her cards when she gets into financial straits, but she may manage to avoid defaults if she is financially sophisticated.

insufficient_income has a positive impact on card defaults. If one's income is not enough to cover her expenses in general, then she is more likely to experience default on her card payments since she uses credit option of cards to finance her common needs. *major_expense* is statistically and positively significant meaning that as major expense increases the likelihood of facing defaults also increases.

income_shock is positively correlated with credit card defaults. If one is exposed to income shock like unexpected unemployment, she probably postpones some card payments and defaults. On the other hand, e*xpenditure_shock* is not statistically significant unlike the income shock.

To ensure the robustness of the study, the elements of financial literacy are excluded from original ordered probit and binary logit models that are to analyze financial difficulties and presence of defaults experienced by cardholders,

respectively. The outcomes of ordered probit model are exhibited on Table 3 and results of binary logit model are shown on Table 4, in the Appendix A. The outcomes of these two models are nearly similar. The outcomes of ordered probit model are similar; however, in the results of binary logit model there are minor differences. *hhincome* and *hhsize* are insignificant whereas they are negatively significant in the original binary logit model. *secondary* is found positively and significantly effective on defaults experienced. The impacts of other variables are similar in both models. Both income and expenditure shocks have positive effects on financial difficulties. The cardholders who spend more than their income in general have higher probability of experiencing financial difficulties and defaults. The cardholders who are hit by income shock are more likely to face defaults.

We also run our original ordered probit and binary logit models without external shocks to find out whether the significances of financial literacy elements change in the absence of external shocks. The results of ordered probit and binary logit models are exhibited on Table 5 and 6 respectively, in the Appendix A. Actually, the results of both models show similar findings with the original ones. Financial literacy elements are found insignificant in the ordered probit model which means that financial literacy has no effect on financial difficulties; on the other hand, in the binary logit model, financial literacy elements (*information* and *sophistication*) are found to have negative significances on defaults experienced by the cardholders.

We construct the variable *financial_literacy* from three financial literacy elements: *information, sophistication* and *activeness* by using principal component analysis. We run our original ordered probit and binary logit models by including *financial_literacy* instead of three literacy elements *information, sophistication* and *activeness.* The results of both models are shown on Table 7 and 8 in the Appendix

A. The findings of ordered probit model are again similar with the original ordered probit model that measures financial difficulties, whereas, in the binary logit model there are minor differences. In the outcomes of binary logit model, *hhsize* loses its significance, meaning that household size has no impact on the probability of facing default by the cardholders.

Alternatively, we construct financial_literacy from nine elements of financial literacy: *interest_rate, annual_fee, deposit_insurance, auto_order, tax_ins_payment, internet_banking, acquisition and attempt.* We use *financial_literacy* that is capable of representing these nine financial literacy elements by itself in our original ordered probit and binary logit models. The results are shown on Table 9 and Table 10 respectively in the Appendix A. The outcomes of ordered probit model have similarities with the outcomes of original ordered probit model. In the results of binary logit model, differently from the original one, *major_expense* loses significance which means that it has no effect on defaults experienced by the cardholders.

As seen above, this study shows robustness, so is a reliable study. The results do not exhibit any differences when some variables are excluded, or other proxies are used for the defaults and financial difficulties of the cardholders.

CHAPTER 7

CONCLUSION

With the rapid expansion of the Turkish credit card market, serious credit card problems surfaced in the first half of 2000s. Credit card issuing banks were severely criticized for encouraging consumption and borrowing, charging very high interest rates, and exploiting cardholders. The ensuing credit card regulations in 2005 and 2006 aimed at preventing banks from exploiting their customers. Those regulations restricted credit card operations, suppressed interest rates, and reduced banks' market power. However, the credit card default incidence did not decline after those regulations, suggesting that these problems may also be the result of inefficient financial decisions of the cardholders.

We investigate the effect of financial literacy on credit card related problems in two parts. Specifically, we examine whether unavoidable external shocks or the inefficient use of credit cards cause cardholders to experience financial difficulties and to face defaults. In the first part, with an ordered probit model, we identify the determinants of financial difficulties experienced by cardholders. We proxy financial difficulties with the number of months a cardholder does not pay at least the minimum amount due in her credit card bill. As explanatory variables, we use some financial literacy variables, a measure of irrationality, external shocks, and some socioeconomic and demographic control variables. In the second part, with a binary logit model, we identify the determinants of credit card defaults faced by cardholders. We use the same set of explanatory variables in the second part as in the first one.

Data is obtained from a nationwide credit card survey conducted on 2576 cardholders randomly selected from diverse cities in 2009. The results of our first part analysis show that income and expenditure shocks are the important determinants of the financial difficulties experienced by cardholders. Also, cardholders who tend to spend more than they earn in general, and chose to finance themselves with credit cards are very likely to experience financial difficulties. Financial literacy, income and wealth do not come out as significant factors in this model.

The results of the second part analysis show that unexpected income shocks, whose effects are likely to linger, are an important determinant also for defaults. However, the cardholders hit by such shocks are likely to overcome their financial difficulties and avoid credit card defaults, if they are financially literate, if their household income is high, and if their household size is large. People who could not strike a long-term balance between their income and expenditures are also likely to face credit card defaults. Females, old and retired people are less likely to default.

For brevity, the outcomes of this study suggest that financial literacy has a significant preventive impact on card defaults. Federal Reserve Chairman Alan Greenspan's words are supportive of this conclusion: "...a greater degree of financial literacy cannot only improve the financial status of families but also helps avoid or ameliorate the negative consequences of uninformed decisions."[26] Finance related courses should be included in the curriculum of the majors since in the literature, it is found out that individuals who learnt finance mainly from finance related courses are more likely to be more knowledgeable about the sources of credit than those who learnt by trial and error (Lachance et al, 2006). Prior to owning credit cards or using

[26] Stegman and Faris, 2003.

any kind of credit, financial education and counseling opportunities should be provided to the individuals. This will improve financial behaviors of individuals since it is shown in the literature that financial education and counseling are effective in improving financial literacy of individuals (Courchane and Zorn, 2005). We hope these findings will be helpful for regulators to realize the impact of financial literacy, and thereby the impact of financial education on defaults. Furthermore, policy makers, consumer agencies and credit card issuers should prepare education programs about credit cards to increase the literacy of the cardholders and lead them to hold right opinions and give correct decisions. It is important to realize that credit cards are beneficial when they are used correctly since they help us to overcome temporary financial straits by providing an easy access to credit. With the help of education on cards, cardholders may learn how and under what conditions to use their cards, and thus can save themselves from facing any kind of card defaults during financial straits.

APPENDICES

A. Results of Robustness Tests

For the robustness test of the ordinary probit model, binary logit model is used with dependent variable that measures the type of revolvers. The results of this binary logit model are shown on Table 1.

Table 1: Results of the binary logit model:
Dep. Var. Type of revolvers

Variables	Coef./(z-value)	p-value
information	-0.016 (0.10)	0.919
activeness	0.114 (0.75)	0.452
sophistication	-0.115 (0.75)	0.453
income_shock	0.975 (5.30)***	0.000
expenditure_shock	0.579 (2.53)**	0.011
insufficient_income	0.776 (4.22)***	0.000
major_expense	0.111 (0.79)	0.430
single_card	0.200 (1.04)	0.297
totalcclimit	0.018 (1.35)	0.176
hhincome	-0.131 (0.74)	0.461
hhincomesq	0.004 (0.21)	0.830
hhsize	-0.004 (0.06)	0.955
wealth	0.000 (0.47)	0.641
female	0.037 (0.17)	0.865
married	0.102 (0.44)	0.657
age	-0.169 (2.94)***	0.003

Table 1: Continued

Variables	Coef./(z-value)	p-value
agesq	0.002 (2.65)***	0.008
primary	0.294 (0.94)	0.349
secondary	0.065 (0.19)	0.846
high_school	-0.122 (0.50)	0.616
self_employed	0.376 (1.12)	0.265
farm_season	-0.009 (0.02)	0.985
private	-0.301 (1.10)	0.272
unemployed	-0.600 (1.40)	0.162
retired_out_labor	-0.598 (1.46)	0.145
unretired_out_labor	-0.172 (0.29)	0.770
coast	0.763 (2.02)**	0.044
blacksea	0.697 (1.49)	0.136
middle_anatolia	0.512 (1.22)	0.221
town	0.245 (0.81)	0.417
_cons	2.132 (1.78)*	0.075
N	647	

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

The results of the binary logit model with the dummy dependent variable that measures the presence of default and takes 1 if one has faced default during her life, 0 otherwise are exhibited on Table 2.

Table 2: Results of the binary logit model

Dep. Var. dummy variable that takes 1 if revolver has ever faced default, 0 otherwise

Variables	Coef./(z-value)	p-value
information	-0.538 (2.44)**	0.015
activeness	-0.101 (0.46)	0.647
sophistication	-0.794 (3.07)***	0.002
income_shock	0.556 (2.10)**	0.036
expenditure_shock	-0.157 (0.50)	0.614
insufficient_income	0.544 (2.02)**	0.043
major_expense	0.348 (1.89)*	0.058
single_card	-0.485 (1.74)*	0.081
totalcclimit	-0.012 (0.75)	0.453
hhincome	-0.199 (0.82)	0.413
hhincomesq	0.027 (1.15)	0.251
hhsize	-0.121 (1.27)	0.204
wealth	0.000 (0.75)	0.456
female	-0.968 (2.72)***	0.007
married	0.712 (2.02)**	0.043
age	-0.072 (1.01)	0.311
agesq	0.001 (1.23)	0.220
primary	-0.429 (0.94)	0.348
secondary	-0.035 (0.08)	0.940
high_school	0.038 (0.11)	0.915
self_employed	-0.354 (0.74)	0.461
farm_season	0.416 (0.67)	0.501

Table 2: Continued:

Variables	Coef./(z-value)	p-value
private	-0.428	0.290
	(1.06)	
unemployed	0.967	0.073
	(1.80)*	
retired_out_labor	-0.775	0.169
	(1.38)	
unretired_out_labor	0.062	0.945
	(0.07)	
coast	0.046	0.929
	(0.09)	
blacksea	-0.237	0.732
	(0.34)	
middle_anatolia	0.166	0.775
	(0.29)	
town	-1.519	0.021
	(2.31)**	
_cons	-0.862	0.585
	(0.55)	
N	647	

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Table 3: The results of the ordered probit model when elements of financial literacy are excluded.

Dep. Var.: the number of months the cardholder does not pay at least the minimum amount due in her credit card in the last twelve months

Variables	Coef./(z-value)	p-value
income_shock	0.493	0.000
	(5.68)***	
expenditure_shock	0.215	0.040
	(2.06)**	
insufficient_income	0.286	0.001
	(3.26)***	
major_expense	0.079	0.232
	(1.19)	
single_card	0.087	0.345
	(0.94)	
totalcclimit	0.010	0.080
	(1.75)*	
hhincome	-0.099	0.251
	(1.15)	
hhincomesq	0.007	0.483
	(0.70)	
hhsize	0.017	0.585
	(0.55)	
wealth	0.000	0.507
	(0.66)	

Table 3: Continued:

	Variables	Coef./(z-value)	p-value
	female	-0.037	0.717
		(0.36)	
	married	0.056	0.609
		(0.51)	
	age	-0.053	0.040
		(2.06)**	
	agesq	0.001	0.054
		(1.93)*	
	primary	0.019	0.899
		(0.13)	
	secondary	-0.015	0.923
		(0.10)	
	high_school	-0.084	0.468
		(0.73)	
	self_employed	0.127	0.423
		(0.80)	
	farm_season	0.200	0.388
		(0.86)	
	private	-0.015	0.913
		(0.11)	
	unemployed	-0.100	0.636
		(0.47)	
	retired_out_labor	-0.185	0.345
		(0.94)	
	unretired_out_labor	-0.129	0.639
		(0.47)	
	coast	0.206	0.243
		(1.17)	
	blacksea	0.234	0.290
		(1.06)	
	middle_anatolia	0.246	0.218
		(1.23)	
	town	0.090	0.539
		(0.61)	
cut1	_cons	-0.911	
		(1.65)*	
cut2	_cons	-0.570	
		(1.04)	

Table 3: Continued:

	Variables	Coef./(z-value)	p-value
cut3	_cons	0.003	
		(0.01)	
cut4	_cons	0.553	
		(1.00)	
cut5	_cons	0.854	
		(1.55)	
cut6	_cons	1.124	
		(2.03)**	
cut7	_cons	1.899	
		(3.36)***	
cut8	_cons	2.084	
		(3.64)***	
cut9	_cons	2.542	
		(4.19)***	
N		668	

Table 4: The results of the binary logit model when elements of financial literacy are excluded.

Dep. Var.: The dummy variable that takes the value of 1 if the respondent has experienced a default in years 2008 or 2009, or 0 otherwise.

Variables	Coef./(z-value)	p-value
income_shock	0.711	0.023
	(2.27)**	
expenditure_shock	0.453	0.187
	(1.32)	
insufficient_income	0.933	0.006
	(2.73)***	
major_expense	0.317	0.151
	(1.44)	
single_card	-0.268	0.418
	(0.81)	
totalcclimit	0.002	0.900
	(0.13)	
hhincome	-0.446	0.113
	(1.59)	
hhincomesq	0.048	0.059
	(1.89)*	
hhsize	-0.167	0.141
	(1.47)	
wealth	0.001	0.216
	(1.24)	

Table 4: Continued:

Variables	Coef./(z-value)	p-value
female	-0.805 (1.90)*	0.058
married	-0.113 (0.29)	0.770
age	-0.150 (1.86)*	0.064
agesq	0.002 (2.18)**	0.029
primary	0.586 (1.06)	0.290
secondary	0.977 (1.85)*	0.065
high_school	0.392 (0.89)	0.375
self_employed	-0.764 (1.39)	0.165
farm_season	-0.212 (0.30)	0.768
private	-0.751 (1.63)	0.102
unemployed	0.592 (0.99)	0.321
retired_out_labor	-1.948 (2.61)***	0.009
unretired_out_labor	-1.207 (1.03)	0.302
coast	-0.374 (0.66)	0.508
blacksea	-0.400 (0.52)	0.602
middle_anatolia	-0.052 (0.08)	0.936
town	-0.807 (1.22)	0.223
_cons	0.701 (0.39)	0.695
N	670	

Table 5: The results of the ordered probit model when external shocks are excluded. *Dep. Var.: the number of months the cardholder does not pay at least the minimum amount due in her credit card in the last twelve months*

Variables	Coef./(z-value)	p-value
information	-0.105	0.160
	(1.41)	
activeness	0.066	0.373
	(0.89)	
sophistication	-0.035	0.641
	(0.47)	
insufficient_income	0.237	0.007
	(2.69)***	
major_expense	0.098	0.149
	(1.44)	
single_card	0.079	0.399
	(0.84)	
totalcclimit	0.013	0.024
	(2.25)**	
hhincome	-0.115	0.191
	(1.31)	
hhincomesq	0.006	0.529
	(0.63)	
hhsize	0.030	0.346
	(0.94)	
wealth	0.000	0.252
	(1.15)	
female	-0.022	0.834
	(0.21)	
married	0.071	0.525
	(0.64)	
age	-0.057	0.029
	(2.18)**	
agesq	0.001	0.049
	(1.96)**	
primary	0.027	0.861
	(0.17)	
secondary	0.012	0.939
	(0.08)	
high_school	-0.112	0.351
	(0.93)	
self_employed	0.178	0.273
	(1.10)	
farm_season	0.214	0.358
	(0.92)	
private	-0.024	0.861

Table 5: Continued:

	Variables	Coef./(z-value)	p-value
	unemployed	-0.004	0.986
		(0.02)	
	retired_out_labor	-0.193	0.332
		(0.97)	
	unretired_out_labor	-0.074	0.791
		(0.27)	
	coast	0.228	0.210
		(1.25)	
	blacksea	0.248	0.273
		(1.10)	
	middle_anatolia	0.246	0.232
		(1.19)	
	town	0.112	0.444
		(0.77)	
cut1	_cons	-1.221	
		(2.19)**	
cut2	_cons	-0.902	
		(1.62)	
cut3	_cons	-0.347	
		(0.62)	
cut4	_cons	0.177	
		(0.32)	
cut5	_cons	0.484	
		(0.87)	
cut6	_cons	0.755	
		(1.35)	
cut7	_cons	1.479	
		(2.60)***	
cut8	_cons	1.654	
		(2.88)***	
cut9	_cons	2.090	
		(3.45)***	
N		645	

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Table 6: The results of the binary logit model when external shocks are excluded. *Dep. Var.: The dummy variable that takes the value of 1 if the respondent has experienced a default in years 2008 or 2009, or 0 otherwise.*

Variables	Coef./(z-value)	p-value
information	-0.681 (2.53)**	0.011
activeness	0.064 (0.24)	0.814
sophistication	-1.102 (3.04)***	0.002
insufficient_income	0.885 (2.58)***	0.010
major_expense	0.439 (1.90)*	0.057
single_card	-0.471 (1.42)	0.157
totalcclimit	0.009 (0.52)	0.604
hhincome	-0.478 (1.67)*	0.096
hhincomesq	0.054 (2.08)**	0.038
hhsize	-0.195 (1.66)*	0.098
wealth	0.001 (1.42)	0.155
female	-0.861 (1.96)*	0.051
married	0.007 (0.02)	0.986
age	-0.168 (2.06)**	0.039
agesq	0.002 (2.30)**	0.021
primary	0.215 (0.38)	0.705
secondary	0.725 (1.30)	0.193
high_school	0.205 (0.45)	0.651
self_employed	-0.881 (1.51)	0.130
farm_season	-0.340 (0.47)	0.642
private	-0.720 (1.56)	0.119

Table 6: Continued:

Variables	Coef./(z-value)	p-value
unemployed	0.815	0.169
	(1.38)	
retired_out_labor	-2.186	0.004
	(2.88)***	
unretired_out_labor	-1.011	0.388
	(0.86)	
coast	-0.247	0.669
	(0.43)	
blacksea	-0.137	0.861
	(0.17)	
middle_anatolia	-0.006	0.992
	(0.01)	
town	-1.086	0.114
	(1.58)	
_cons	1.624	0.362
	(0.91)	
N	647	

By using the principal component analysis *financial_literacy* is formed from three elements of financial literacy: *information, activeness* and *sophistication.* We use *financial_literacy* instead of three literacy elements in our original ordered probit and binary logit models and the results are shown on Table A7 and Table A8 respectively.

Table 7: The results of ordered probit model:
Dep. Var.: the number of months the cardholder does not pay at least the minimum amount due in her credit card in the last twelve months

Variables	Coef./(z-value)	p-value
financial_literacy	-0.035	0.651
	(0.45)	
income_shock	0.524	0.000
	(5.92)***	
expenditure_shock	0.220	0.038
	(2.08)**	
insufficient_income	0.332	0.000
	(3.70)***	
major_expense	0.103	0.128
	(1.52)	
single_card	0.095	0.316
	(1.00)	
totalcclimit	0.011	0.067
	(1.83)*	

Table 7: Continued:

	Variables	Coef./(z-value)	p-value
	hhincome	-0.115	0.193
		(1.30)	
	hhincomesq	0.007	0.496
		(0.68)	
	hhsize	0.013	0.688
		(0.40)	
	wealth	0.000	0.507
		(0.66)	
	female	-0.007	0.945
		(0.07)	
	married	0.071	0.526
		(0.63)	
	age	-0.058	0.028
		(2.20)**	
	agesq	0.001	0.039
		(2.06)**	
	primary	0.022	0.884
		(0.15)	
	secondary	-0.036	0.823
		(0.22)	
	high_school	-0.096	0.420
		(0.81)	
	self_employed	0.094	0.565
		(0.58)	
	farm_season	0.157	0.502
		(0.67)	
	private	-0.076	0.575
		(0.56)	
	unemployed	-0.136	0.527
		(0.63)	
	retired_out_labor	-0.241	0.226
		(1.21)	
	unretired_out_labor	-0.151	0.591
		(0.54)	
	coast	0.228	0.210
		(1.25)	
	blacksea	0.238	0.292
		(1.05)	
	middle_anatolia	0.247	0.231
		(1.20)	
	town	0.111	0.451
		(0.75)	
cut1	_cons	-0.971	
		(1.73)*	

Table 7: Continued:

	Variables	Coef./(z-value)	p-value
cut2	_cons	-0.640	
		(0.41)	
cut3	_cons	-0.062	
		(0.11)	
cut4	_cons	0.478	
		(0.85)	
cut5	_cons	0.791	
		(1.41)	
cut6	_cons	1.068	
		(1.89)*	
cut7	_cons	1.820	
		(3.16)***	
cut8	_cons	2.006	
		(3.44)***	
cut9	_cons	2.467	
		(3.99)***	
N		645	

Table 8: The results of the binary logit model:
Dep. Var.: The dummy variable that takes the value of 1 if the respondent has experienced a default in years 2008 or 2009, or 0 otherwise.

Variables	Coef./(z-value)	p-value
financial_literacy	-0.946	0.002
	(3.15)***	
income_shock	0.694	0.029
	(2.18)**	
expenditure_shock	0.367	0.297
	(1.04)	
insufficient_income	0.958	0.005
	(2.79)***	
major_expense	0.356	0.114
	(1.58)	
single_card	-0.375	0.260
	(1.13)	
totalcclimit	0.004	0.826
	(0.22)	
hhincome	-0.509	0.078
	(1.76)*	
hhincomesq	0.057	0.030
	(2.17)**	
hhsize	-0.176	0.124
	(1.54)	
wealth	0.001	0.191
	(1.31)	

Table 8: Continued:

Variables	Coef./(z-value)	p-value
female	-0.794 (1.84)*	0.066
married	-0.034 (0.09)	0.930
age	-0.145 (1.79)*	0.074
agesq	0.002 (2.08)**	0.038
primary	0.279 (0.50)	0.618
secondary	0.614 (1.12)	0.261
high_school	0.241 (0.54)	0.588
self_employed	-0.800 (1.40)	0.161
farm_season	-0.334 (0.46)	0647
private	-0.707 (1.52)	0.129
unemployed	0.762 (1.25)	0.210
retired_out_labor	-2.050 (2.75)***	0.006
unretired_out_labor	-1.053 (0.89)	0.376
coast	-0.373 (0.65)	0519
blacksea	-0.267 (0.34)	0.734
middle_anatolia	-0.131 (0.20)	0.843
town	-1.135 (1.61)	0.107
_cons	0.831 (0.46)	0.644
N	647	

By using the principal component analysis *financial_literacy* is formed from nine elements of financial literacy: *interest_rate, annual_fee, deposit_insurance, auto_order, tax_ins_payment, internet_banking, acquisition and attempt.* We use *financial_literacy* that is capable of representing these nine financial literacy elements by itself in our original ordered probit and binary logit models. The results are shown on Table 9 and Table 10 respectively.

Table 9: The results of ordered probit model:

Dep. Var.: the number of months the cardholder does not pay at least the minimum amount due in her credit card in the last twelve months

Variables	Coef./(z-value)	p-value
literacy	-0.035 (0.45)	0.651
income_shock	0.524 (5.92)***	0.000
expenditure_shock	0.220 (2.08)**	0.038
insufficient_income	0.332 (3.70)***	0.000
major_expense	0.103 (1.52)	0.128
single_card	0.095 (1.00)	0.316
totalcclimit	0.011 (1.83)*	0.067
hhincome	-0.115 (1.30)	0.193
hhincomesq	0.007 (0.68)	0.496
hhsize	0.013 (0.40)	0.688
wealth	0.000 (0.66)	0.507
female	-0.007 (0.07)	0.945
married	0.071 (0.63)	0.526
age	-0.058 (2.20)**	0.028
agesq	0.001 (2.06)**	0.039
primary	0.022 (0.15)	0.884
secondary	-0.036 (0.22)	0.823
high_school	-0.096 (0.81)	0.420
self_employed	0.094 (0.58)	0.565
farm_season	0.157 (0.67)	0.502
private	-0.076 (0.56)	0.575

Table 9: Continued:

	Variables	Coef./(z-value)	p-value
	unemployed	-0.136	0.527
		(0.63)	
	retired_out_labor	-0.241	0.226
		(1.21)	
	unretired_out_labor	-0.151	0.591
		(0.54)	
	coast	0.228	0.210
		(1.25)	
	blacksea	0.238	0.292
		(1.05)	
	middle_anatolia	0.247	0.231
		(1.20)	
	town	0.111	0.451
		(0.75)	
cut1	_cons	-0.971	
		(1.73)*	
cut2	_cons	-0.640	
		(1.14)	
cut3	_cons	-0.062	
		(0.11)	
cut4	_cons	0.478	
		(0.85)	
cut5	_cons	0.791	
		(1.41)	
cut6	_cons	1.068	
		(1.89)*	
cut7	_cons	1.820	
		(3.16)***	
cut8	_cons	2.006	
		(3.44)***	
cut9	_cons	2.467	
		(3.99)***	
N		645	

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Table 10: The results of the binary logit model:
Dep. Var.: The dummy variable that takes the value of 1 if the respondent has experienced a default in years 2008 or 2009, or 0 otherwise.

Variables	Coef./(z-value)	p-value
literacy	-0.946 (3.15)***	0.002
income_shock	0.694 (2.18)**	0.029
expenditure_shock	0.367 (1.04)	0.297
insufficient_income	0.958 (2.79)***	0.005
major_expense	0.356 (1.58)	0.114
single_card	-0.375 (1.13)	0.260
totalcclimit	0.004 (0.22)	0.826
hhincome	-0.509 (1.76)*	0.078
hhincomesq	0.057 (2.17)**	0.030
hhsize	-0.176 (1.54)	0.124
wealth	0.001 (1.31)	0.191
female	-0.794 (1.84)*	0.066
married	-0.034 (0.09)	0.930
age	-0.145 (1.79)*	0.074
agesq	0.002 (2.08)**	0.038
primary	0.279 (0.50)	0.618
secondary	0.614 (1.12)	0.261
high_school	0.241 (0.54)	0.588
self_employed	-0.800 (1.40)	0.161
farm_season	-0.334 (0.46)	0.647
private	-0.707 (1.52)	0.129
unemployed	0.762 (1.25)	0.210

Table 10: Continued:

Variables	Coef./(z-value)	p-value
retired_out_labor	-2.050 (2.75)***	0.006
unretired_out_labor	-1.053 (0.89)	0.376
coast	-0.373 (0.65)	0.519
blacksea	-0.267 (0.34)	0.734
middle_anatolia	-0.131 (0.20)	0.843
town	-1.135 (1.61)	0.107
_cons	0.831 (0.46)	0.644
N	647	

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Table 11: Correlation of variables

Variables	default	fin. diff.	inform.	active.	sophis.	inc_shock	exp_shock	insuff_inc	major_exp.	single_card	totalcclimit	hhincome	hhincomesq
default	1.000												
fin. diff.	0.174	1.000											
information	-0.074	-0.026	1.000										
activeness	-0.006	0.023	0.060	1.000									
sophistication	-0.121	-0.020	0.092	-0.060	1.000								
income_shock	0.081	0.225	-0.116	0.069	0.022	1.000							
expenditure_shock	0.063	0.086	-0.086	0.025	-0.020	0.075	1.000						
insufficient_income	0.091	0.097	0.012	0.027	-0.026	-0.140	-0.053	1.000					
major_expense	0.047	0.048	0.076	-0.080	0.159	0.003	-0.005	-0.078	1.000				
single_card	-0.040	0.012	-0.049	0.027	-0.170	-0.007	-0.043	0.001	-0.244	1.000			
totalcclimit	0.043	0.074	0.035	-0.016	0.171	0.076	0.001	-0.043	0.333	-0.353	1.000		
hhincome	-0.004	-0.012	-0.013	-0.044	0.273	0.021	0.007	-0.146	0.615	-0.239	0.303	1.000	
hhincomesq	0.038	0.003	-0.017	-0.028	0.196	0.018	0.018	-0.133	0.542	-0.179	0.286	0.918	1.000
hhsize	-0.025	0.041	0.026	0.085	-0.084	0.122	0.054	0.021	0.117	-0.009	0.037	0.086	0.053
wealth	0.100	0.035	0.043	0.006	-0.006	0.037	0.069	0.021	0.180	-0.045	0.031	0.147	0.115
female	-0.089	-0.029	-0.136	0.026	0.042	-0.033	0.011	-0.017	0.017	0.023	-0.060	0.068	0.021
married	0.013	0.017	0.113	-0.042	-0.100	-0.044	0.036	0.045	0.089	-0.090	0.074	-0.100	-0.074
age	0.051	-0.007	-0.057	-0.039	-0.216	-0.119	0.134	0.026	0.125	-0.051	0.142	-0.027	0.032
agesq	0.058	-0.004	-0.065	-0.034	-0.214	-0.128	0.148	0.024	0.099	-0.044	0.119	-0.030	0.027
primary	0.018	0.054	-0.019	0.044	-0.300	0.007	0.023	0.087	-0.056	0.121	-0.101	-0.192	-0.092
secondary	0.069	0.011	0.020	-0.108	-0.095	0.056	0.018	-0.009	-0.062	0.046	-0.029	-0.058	-0.029
high_school	-0.023	-0.038	0.046	0.019	0.062	-0.023	-0.043	0.023	-0.028	-0.090	0.028	-0.036	-0.069
self_employed	0.014	0.049	-0.012	-0.083	0.128	0.066	0.012	-0.055	0.325	-0.108	0.177	0.375	0.351
farm_season	0.027	0.062	-0.078	-0.013	-0.072	0.015	-0.012	0.043	-0.059	0.102	-0.068	-0.069	-0.049
private	-0.070	-0.023	0.039	0.091	-0.023	0.055	-0.070	-0.023	-0.212	0.045	-0.120	-0.132	-0.128
unemployed	0.118	0.016	0.041	0.039	-0.049	0.120	-0.070	-0.041	-0.064	0.021	0.050	-0.128	-0.086
retired_out_labor	-0.028	-0.037	-0.093	0.002	-0.185	-0.117	0.151	0.100	-0.042	-0.006	-0.012	-0.107	-0.071
unretired_out_labor	-0.027	-0.005	0.010	0.020	0.018	-0.012	0.037	0.049	0.012	0.047	-0.059	-0.035	-0.035
coast	-0.006	0.018	0.052	-0.085	0.010	0.001	-0.060	-0.013	0.047	-0.069	0.003	-0.002	-0.009
blacksea	-0.029	0.008	0.100	0.007	0.045	0.006	-0.062	0.018	0.004	0.045	0.041	0.023	0.003
middle_anatolia	0.017	-0.006	-0.067	0.023	-0.026	-0.005	0.033	-0.027	-0.048	0.005	-0.056	-0.018	0.004
town	-0.050	0.005	0.063	0.011	-0.044	-0.015	0.050	-0.040	-0.091	-0.019	-0.027	-0.049	-0.006

Table 11: Continued:

	hhsize	wealth	female	married	age	agesq	primary	secondary	high_sch	self_emp	farm_season	private	unemp
hhsize	1.000												
wealth	0.051	1.000											
female	-0.143	-0.015	1.000										
married	0.157	0.027	-0.157	1.000									
age	0.034	0.064	-0.078	0.410	1.000								
agesq	0.008	0.063	-0.074	0.354	0.986	1.000							
primary	0.157	-0.047	-0.181	0.224	0.340	0.334	1.000						
secondary	0.069	-0.033	-0.089	0.073	0.029	0.016	-0.221	1.000					
high_school	-0.038	0.071	0.097	-0.121	0.228	-0.218	-0.456	-0.296	1.000				
self_employed	0.033	0.033	-0.159	0.033	0.001	-0.015	0.010	0.021	0.016	1.000			
farm_season	0.109	-0.027	0.038	0.004	0.061	0.053	0.119	0.046	-0.041	-0.100	1.000		
private	-0.008	-0.054	-0.017	-0.066	0.355	-0.353	-0.026	-0.009	0.038	-0.376	-0.191	1.000	
unemployed	0.044	-0.023	0.019	-0.034	0.003	-0.014	0.001	0.061	-0.010	-0.113	-0.057	-0.215	1.000
retired_out_labor	-0.079	0.121	0.070	0.126	0.579	0.614	0.215	0.024	-0.144	-0.169	-0.086	-0.324	-0.097
unretired_out_labor	0.049	-0.020	0.083	-0.177	0.145	-0.127	-0.043	-0.068	0.174	-0.079	-0.040	-0.152	-0.045
coast	-0.081	0.020	-0.007	-0.001	0.013	-0.015	0.055	0.065	-0.028	-0.052	0.062	0.100	0.017
blacksea	0.006	0.021	-0.022	-0.017	0.030	0.038	0.000	-0.072	0.063	0.063	-0.021	-0.138	0.032
middle_anatolia	-0.007	-0.021	0.064	0.010	0.004	0.003	-0.036	-0.035	0.021	-0.022	-0.044	0.017	-0.002
town	0.016	-0.036	-0.040	-0.010	0.018	0.006	0.055	-0.027	0.032	-0.015	-0.023	0.016	0.074

Table 11: Continued:

	retired_out_labor	unret_out_labor	coast	blacksea	middle_anatolia	town
retired_out_labor	1					
unretired_out_labor	-0.0683	1				
coast	-0.0255	-0.0645	1			
blacksea	0.0726	0.1604	0.5003	1		
middle_anatolia	-0.0094	-0.0161	0.6102	-0.1228	1	
town	-0.0438	-0.0272	0.1347	0.0077	-0.1251	1

B. The Survey of Credit Card Usage

frekans RESEARCH	Boğaziçi University	TÜBİTAK	Survey No	
			Province	
			Town	

The Survey of Credit Card Usage - April 2009

Have a good day. My name is ..... We are conducting a survey on credit card usage on behalf of Boğaziçi University supported by the Scientific and Technological Research Council of Turkey (TÜBİTAK) for scientific purposes only. The interviews are conducted on households which were selected by random methods covering 2,500 people across Turkey. This study will be evaluated for only general results and your personal information will not be used in any way. Our survey will take approximately 30 minutes. Thank you in advance for your help.

A-INTRODUCTION

A-1	Do you have a credit card?	1> Yes 2> No (Finish the interview)	c1.
A-2	Are the decisions concerning the selection and monthly payments of this credit card made by you?	1> Yes 2> No (Finish the interview)	c2.

C-BANK CHOICE

C-1	Now, I will ask you some questions about banking services	No	Yes	
	Do you have a time deposit account?	0	1	c3.
	Do you have a liquid deposit account?	0	1	c4.
	Do you make investment transactions from your bank? (foreign exchange, fund, debenture, bond, Eurobond, stock, gold, repos, derivatives exchange)	0	1	c5.
	Do you have a private pension fund account?	0	1	c6.
	Do you use automatic payment orders in your bank?	0	1	c7.
	If you are working, are your wages deposited at the bank?	0	1	c8.
	Do you make tax or insurance payments from your bank?	0	1	c9.
	Have you ever used automotive credit?	0	1	c 10.

	Have you ever used housing/mortgage credit?	0			1		c 11.
	Have you ever used consumer credit?	0			1		c 12.
	Have you ever used commercial credit?	0			1		c 13.
C-2	How often do you use the following banking services? Please assign 5 for the very frequently used services and 1 for services you never use.	Never	Seldom	Sometimes	Frequently	Very Frequently	
	Internet banking	1	2	3	4	5	c 14.
	Telephone banking	1	2	3	4	5	c 15.
	ATM	1	2	3	4	5	c 16.
	Transfer Operations like EFT	1	2	3	4	5	c 17.
	Commercial banking services (check, script, leasing)	1	2	3	4	5	c 18.
C-3	At which banks do you have an account? (You can select more than one bank name) (If the subject is not able to remember, read the bank names.) WARNING: All banks at which the subject has a credit card will be selected.	1.Akbank 2.Al Baraka Türk 3.Anadolubank 4.BankAsya 5.Citibank 6.Denizbank 7.Eurobank Tekfen 8.Finansbank 9.Fortisbank 10.Garanti Bankası 11.Halk Bankası 12.HSBC Bank 13.ING Bank 14.İş Bankası			15.Kuveyt Türk 16.Millennium Bank 17.Şekerbank 18.Tekstilbank 19.Turkish Bank 20.Turkland Bank 21. Türk Ekonomi Bankası 22.Türkiye Finans 23.Vakıfbank 24.Yapı ve Kredi Bankası 25. Ziraat Bankası		c 19. c 20. c 21. c 22. c 23. c 24. c 25.
C-4	Which of these banks is the one you use most frequently?	.....					c 26.
C-5	For about how many years have you been working with this bank?	..... years 96> Less than a year					c 27.
C-6	Please rate the effectiveness of the listed factors in your decision to choose this bank. Please assign 5 for the most important reasons and 1 for the least important reasons. (Note to surveyor: SHOW CARD)	Not effective at all	Effective to a small degree	Some what effective	Effective	Very effective	
	01. Higher interest rates on deposits	1	2	3	4	5	c 28.

	02. Low account fees (or zero)	1	2	3	4	5	c 29.
	03. Low fees on transactions like money transfers, checks, ?	1	2	3	4	5	c 30.
	04. Lower interest rates and costs for credit	1	2	3	4	5	c 31.
	05. Ease of using credit	1	2	3	4	5	c 32.
	06. Some household income is deposited at this bank	1	2	3	4	5	c 33.
	07. Special services for tradesmen and farmers	1	2	3	4	5	c 34.
	08. People I am in touchwith areworking with this bank	1	2	3	4	5	c 35.
	09. Closeness of bank branch	1	2	3	4	5	c 36.
	10. Branch density	1	2	3	4	5	c 37.
	11. Service quality (like speed of services, courtesy of workers, and ambiance of bank branch)	1	2	3	4	5	c 38.
	12. ATM density	1	2	3	4	5	c 39.
	13. Good internet banking	1	2	3	4	5	c 40.
	14. Good telephone banking	1	2	3	4	5	c 41.
	15. Ease of foreign transactions	1	2	3	4	5	c 42.
	16. High security in transactions	1	2	3	4	5	c 43.
	17. The availability of customized services	1	2	3	4	5	c 44.
	18. The availability of a wide range of services	1	2	3	4	5	c 45.
	19. Having a prestigious and good name?	1	2	3	4	5	c 46.
	20. Its being a trustworthy and sound bank	1	2	3	4	5	c 47.
	21. Its being a state bank	1	2	3	4	5	c 48.
	22. Its being a Turkish bank	1	2	3	4	5	c 49.
	23. Its being an international bank	1	2	3	4	5	c 50.
	24. Its being a participation bank (interest free banking)	1	2	3	4	5	c 51.
	25. Recommendations of acquaintances	1	2	3	4	5	c 52.
	27. Its being my first bank	1	2	3	4	5	c 53.
	Other:		2	3	4	5	c 54.

C-7	How would you rate your level of satisfaction with this bank?	1> Not all satisfied 2> Dissatisfied 3> Neutral 4> Satisfied 5> Very satisfied	c 55.
C-8	Did you change your most frequently used bank before?	1>Yes 2>No (Skip C-10)	c 56.
C-9	If yes, what was the reason?	1>The interest rates and prices of the new bank are better 2>The availability of more diverse and better services at the new bank 3> The bank where some household income is deposited changed 4> People I am in touch with are working with the new bank 5>The branch of the new bank is closer Other…	c 57.
C-10	Do you remember how much of the bank deposits are under the guarantee of the state for every single depositor?	1> All of the deposits 2> up to 100.000TL of the deposited amount 3> up to 50.000TL of the deposited amount 4> up to 25.000TL of the deposited amount 5> There is no state guarantee for deposits 99> I don't remember/ I don't know	c 58.

D- CREDİT CARD SELECTION

Now, I will ask you some questions about your credit cards. Please think of the credit cards that you selected and about which you make the payment decisions.

	Please rate the effectiveness of the listed factors in your decision to use a credit card. Please assign 5 for the most important reasons and 1 for the least important reasons. (Note to surveyor: SHOW CARD)	Not effective at all	Effective to a small degree	Some what effective	Effective	Very effective	
D-1	Not wanting to carry cash	1	2	3	4	5	c 59.
	Borrowing	1	2	3	4	5	c 60.
	Being able to make purchases when short of cash	1	2	3	4	5	c 61.
	Being able to take cash advances when short of cash	1	2	3	4	5	c 62.
	Wanting to take advantage of installments	1	2	3	4	5	c 63.
	Wanting to take advantage of discounts and fuel campaigns	1	2	3	4	5	c 64.
	Internet shopping	1	2	3	4	5	c 65.
	Convenience in shopping abroad	1	2	3	4	5	c 66.
	Convenience in making reservations (tickets, hotel, etc.)	1	2	3	4	5	c 67.
	Being able to keep track of my expenditures	1	2	3	4	5	c 68.

	Other		1	2	3	4	5	c 69.
D-2	Which cards of which banks do you own, and how often do you use them? What brand is/ are your card/s? How often do you use these cards? NOTE: If the subject does not remember the type of the card, write both bank and card information under "other".	Tick if have	Never	Sel dom	Some times	Frequen tly	Very Frequen tly	
	Akbank –Axess	1	1	2	3	4	5	c 70.
	Akbank –Wings	2	1	2	3	4	5	c 71.
	Akbank- Fish	3	1	2	3	4	5	c 72.
	Al Baraka Türk	4	1	2	3	4	5	c 73.
	Anadolubank	5	1	2	3	4	5	c 74.
	Bank Asya	6	1	2	3	4	5	c 75.
	Citibank	7	1	2	3	4	5	c 76.
	Citibank –Citiaxess	8	1	2	3	4	5	c 77.
	Denizbank	9	1	2	3	4	5	c 78.
	Denizbank-Bonus	10	1	2	3	4	5	c 79.
	Eurobank Tekfen	11	1	2	3	4	5	c 80.
	Finansbank (CardFinans)	12	1	2	3	4	5	c 81.
	Fortisbank	13	1	2	3	4	5	c 82.
	Fortisbank -World	14	1	2	3	4	5	c 83.
	Garanti Bankası –Bonus	15	1	2	3	4	5	c 84.
	Garanti Bankası –Flexi	16	1	2	3	4	5	c 85.
	Garanti Bankası - Shop&Miles	17	1	2	3	4	5	c 86.
	Garanti Bankası -American Express	18	1	2	3	4	5	c 87.
	Halk Bankası – Advantage	19	1	2	3	4	5	c 88.
	Halk Bankası – Halkcard	20	1	2	3	4	5	c 89.
	HSBC Bank- Advantage	21	1	2	3	4	5	c 90.

	ING Bank - Maximum	23	1	2	3	4	5	c 91.
	ING Bank – Bonus	24	1	2	3	4	5	c 92.
	İş Bankası (Maximum)	25	1	2	3	4	5	c 93.
	Kuveyt Türk	26	1	2	3	4	5	c 94.
	Millenium Bank	27	1	2	3	4	5	c 95.
	Şekerbank	28	1	2	3	4	5	c 96.
	Şekerbank –Bonus	29	1	2	3	4	5	c 97.
	Tekstilbank	30	1	2	3	4	5	c 98.
	Tekstilbank –Advantage	31	1	2	3	4	5	c 99.
	Turkish Bank	32	1	2	3	4	5	c 100.
	Turkland Bank	33	1	2	3	4	5	c 101.
	Türk Ekonomi Bankası (TEB)	34	1	2	3	4	5	c 102.
	Türk Ekonomi Bankası (TEB)- Bonus	35	1	2	3	4	5	c 103.
	Türkiye Finans	36	1	2	3	4	5	c 104.
	Vakıfbank – Vakıf	37	1	2	3	4	5	c 105.
	Vakıfbank – World	38	1	2	3	4	5	c 106.
	Vakıfbank - Rail&Miles	39	1	2	3	4	5	c 107.
	Yapı ve Kredi (World)	40	1	2	3	4	5	c 108.
	Ziraat Bankası –Ziraat	41	1	2	3	4	5	c 109.
	Ziraat Bankası –Maximum	42	1	2	3	4	5	c 110.
	Other	43	1	2	3	4	5	c 111.
D-3a	[IF THE SUBJECT HAS ONLY ONE CARD] [Skip D-6 after D-3a] Please rate the effectiveness of the listed factors in your decision to have only one credit card. Please assign 5 for the most important reasons and 1 for the least important reasons. (Note to surveyor: SHOW CARD)		Not effective at all	Effective to a small degree	Some what effective	Effective	Very effective	
	Not wanting to pay more than one annual fee.		1	2	3	4	5	c 112.

	The difficulty of making an application for a new card	1	2	3	4	5	c 113.
	Not wanting to deal with more than one card's transactions	1	2	3	4	5	c 114.
	Concern of spending more with more than one card	1	2	3	4	5	c 115.
	Belief that new card applications will be turned down	1	2	3	4	5	c 116.
D-3b	[IF MORE THAN ONE CARD] Please rate the effectiveness of the listed factors in your decision to have more than one credit card. Please assign 5 for the most important reasons and 1 for the least important reasons. (Note to surveyor: SHOW CARD)	Not effective at all	Effective to a small degree	Some what effective	Effective	Very effective	
	Benefiting from different Installment opportunities	1	2	3	4	5	c 117
	Benefiting from different features like bonus points , money points, traveler miles, etc.	1	2	3	4	5	c 118
	Benefiting from different discounts and fuel campaigns	1	2	3	4	5	c 119
	Benefiting from different billing dates	1	2	3	4	5	c 120
	Prestige	1	2	3	4	5	c 121
	One card's limit is not sufficient	1	2	3	4	5	c 122
	Some of my cards have lower interest rates	1	2	3	4	5	c 123
	Precaution in case of problems with other cards	1	2	3	4	5	c 124
D-4	[IF MORE THAN ONE CARD] If we call the credit card you use most often your "main" card, which one would that be? (One of the ones chosen in D-2) (If the subject has only one card, call it the main card.)	Name of bank ..... Name of credit card					c 125.
D-5	[IF MORE THAN ONE CARD] What percentage of your total credit card spendingdo you do with your main card?	% _ _ _					c 126.
D-6	ASK ALL How did obtain your main card?	1> by making a credit card application to my bank 2> by making a credit card application to other banks 3> offered to me from my bank 4> offered to me from other banks					c 127.

D-7	Approximately for how many years have you been using the credit card of same bank as your main card?	..... year(s) 96> Less than one year					c 128.
D-8	Before you made the decision toget this (main) card, how thoroughly did you investigate the credit cards in the market? Please assign 5 if your investigation was very detailed and 1 if you did not do any research.	I did not do any research (1) (2) (3) (4) (5) I did a very detailed research					c 129.
D-9	How effective are the following reasons in your decision to use this credit card as your main card? Please assign 5 for the most important reasons and 1 for the least important reasons. (Note to surveyor: SHOW CARD)	Not effectiv e at all	Effecti ve to a small degree	Some what effectiv e	Effectiv e	Very effective	
	The issuer being the bank the subject already works with	1	2	3	4	5	c 130.
	Low interest rates	1	2	3	4	5	c 131.
	Low (or nil) annual fees	1	2	3	4	5	c 132.
	High credit limit	1	2	3	4	5	c 133.
	More bonus points/money points/traveler miles etc.	1	2	3	4	5	c 134.
	More installments opportunities	1	2	3	4	5	c 135.
	Promotions in fuel purchases	1	2	3	4	5	c 136.
	Extra opportunities like insurance, promotions, valet parking etc.	1	2	3	4	5	c 137.
	Virtual card service	1	2	3	4	5	c 138.
	More extensive discount campaigns	1	2	3	4	5	c 139.
	Widespread branch and ATM network	1	2	3	4	5	c 140.
	Good credit card services via internet and phone	1	2	3	4	5	c 141.
	Informative and effective credit card advertising	1	2	3	4	5	c 142.
	Its being a prestigious card	1	2	3	4	5	c 143.
	Its being an affinity card for a sports team, school etc.	1	2	3	4	5	c 144.
	Its being the first card that the subject owned	1	2	3	4	5	c 145.
	Recommendation of my acquaintances	1	2	3	4	5	c 146.

	Its being the card used by family members	1	2	3	4	5	c 147.
	Other.....		2	3	4	5	c 148.
D-9a	How would you rate your degree of satisfaction with your main card? (as mentioned D-4)	1 Very Dissatisfied 2 Dissatisfied 3 Neither satisfied nor dissatisfied 4 Satisfied 5 Very satisfied					c 149.
D-10	What percentage of your expenditures do you make (within one month) by credit card in general?	%.....					c 150.
D-10a	How much do you spend per month with all your credit cards?	..... TL					c 151.
D-11	Thinking of all your credit cards , in how many months out of the last 12 did you make a less-than –minimum payment?	0> Never, I always pay at least the minimum amount (Skip D-13) .....month(s)					c 152.
D-12	What were the reasons? MULTICODING ALLOWED				Yes	No	
		I forgot the date of payment			1	2	c 153.
		I did not have the opportunity to make payment			1	2	c 154.
		An unexpected situation that negatively affected my income occurred, such as job loss,late salary payment, etc.			1	2	c 155.
		An unexpected necessary spending came up, such as for an illness or an accident			1	2	c 156.
		I spent more than I intended			1	2	c 157.
		I decided to spread some credit card spendings over time			1	2	c 158.
		My income is not enough to cover my expenses in general			1	2	c 159.
		Other					c 160.
D-13	In how many months out of the last 12 did you pay less thanthe total amount of your credit card bills but above the minimum amouny?	0>Never, I always pay the total amount (Skip to D-15) ..... month(s)					c 161.
D-14	What were the reasons? MULTICODING ALLOWED				Yes	No	
		An unexpected situation that negatively affected my income occurred, such as job loss,late salary payment, etc.			1	2	c 162.
		An unexpected necessary spending came up, such as for an illness or an accident			1	2	c 163.
		I spent more than I intended			1	2	c 164.

		I decided to spread some credit card spendings over time	1	2	c 165.
		My income is not enough to cover my expenses in general	1	2	c 166.
		Other	1	2	c 167.
D-15	Retail interest rate applies to the portion of one's credit card bill which is not paid when the minimum amount paid Do you know your mostly used card's retail interest rate?	Yes Retail interest rate % _ _ , _ 99>No, I don't know			c 168.
D-16	Late interest rate applies to the minimum payment portion of one's credit card bill which is not paid when the minimum amount paid Do you know your mostly used card's late interest rate?	Yes Late interest rate % _ _ , _ _ 99> No, I don't know			c 169.
D-17	As far as you know, is there any credit card that has a lower retail interest rate than your credit card in the market?	1>Yes, there is 2>No, there is not 99>No idea			c 170.
D-18	Credit cards' monthly retail interest rates are currently around 4%. If you find out a credit card applying lower interest rates than yours, would you switch to this card?	1>Yes (Continue) 2>No (Skip D-19)			c 171.
D-18a	For example, if there is a credit card applying 3% retail interest rate, would you switch to this card?	1>Yes (Skip D-19) 2>No (Continue)			c 172.
D-18b	If there is a credit card applying 2% retail interest rate, would you switch to this card?	1>Yes (Skip D-19) 2>No (Skip D-19)			c 173.

D-19	Now, I will list some reasons to make switching to another card with lower interest rates difficult. Please rate the effectiveness of the listed factors. Please assign 5 for the most important reasons and 1 for the least important reasons. (Note to surveyor: SHOW CARD)	Not effective at all	Effective to a small degree	Some what effective	Effective	Very effective	
	Not wanting to research	1	2	3	4	5	c 174.
	Not wanting to deal with application and cancelling procedures	1	2	3	4	5	c 175.
	Not wanting to change my bank	1	2	3	4	5	c 176.
	Lower interest rate credit cards have higher annual fees.	1	2	3	4	5	c 177.

	My belief that my application to other banks will be turned down due to my current high debt	1	2	3	4	5	c 178.
	My belief that my application to other banks will be turned down due to other reasons	1	2	3	4	5	c 179.
	My belief that a new card would have a lower limit	1	2	3	4	5	c 180.
	I do not care about a lower interest rate because I do not borrow or I borrow in small amounts and for short duration	1	2	3	4	5	c 181.
	My belief that there is no much difference between credit cards' interest rates	1	2	3	4	5	c 182.
	Not wanting to give up my credit card's other features such as installment, bonus point / money point or travel miles	1	2	3	4	5	c 183.
	Other:.....		2	3	4	5	c 184.
D-20	Please rate the effectiveness of the listed methods in finding out about the features of credit cards on the market Please assign 5 for the most important methods and 1 for the least important methods. (Note to surveyor: SHOW CARD)	Not effective at all	Effectiv e to a small degree	Some what effectiv e	Effec tive	Very effective	
	I get information from my acquaintance	1	2	3	4	5	c 185.
	I get information by telephone or by going to a bank branch	1	2	3	4	5	c 186.
	I research on the internet	1	2	3	4	5	c 187.
	I get information from ads	1	2	3	4	5	c 188.
	Other:.....		2	3	4	5	c 189.
D-21	Now, I will list some reasons to <u>make researching</u> about credit card features difficult. Please rate the effectiveness of the listed factors. Please assign 5 for the most important reasons and 1 for the least important reasons. (Note to surveyor: SHOW CARD)	Not effective at all	Effectiv e to a small degree	Some what effectiv e	Effec tive	Very effective	
	Not wanting to deal with research	1	2	3	4	5	c 190.
	Not knowing how to research	1	2	3	4	5	c 191.
	My belief that there is no difference between credit cards	1	2	3	4	5	c 192.

D-22	Suppose you do not have any credit cards. How much do you investigate the features of the credit cards in the market before you obtain a new credit card? Please rate between1 and 5 with 5 meaning you research very deeply and 1 that you do not do any research.	I do not do any research (1) (2) (3) (4) (5) I research very deeply	c 193.
D-23	Suppose you want to switch to another credit card. Please sort the listed factors in order od importance (only the important ones according to you) while switching to another credit card (writing the most important factor is in the first place) (Note to surveyor: SHOW CARD)	1>Interest rates 2>Annual fee 3>Limit 4>Other features such as bonus point, installments, discounts or travel miles. 5>The issuer of the card	c 194. 1.i mp orta nt c 195. 2.i mp orta nt c 196. 3.i mp orta nt c 197. 4.i mp orta nt c 198. 5.i mp orta nt
D-24	Do you think you sometimes do unnecessary shopping because you have a credit card?	1> Yes 2> No (Skip D-26)	c 199.
D-25	If yes, please rate the effectiveness of the listed factors herein Please assign 5 for the most important reasons and 1 for the least important reasons. (Note to surveyor: SHOW CARD)	Not effecti ve at all / Effective to a small degree / Some what effective / Effectiv e / Very effective	
	The low monthly payments due to installments	1 / 2 / 3 / 4 / 5	c 200.

	Inability to track spending since not paying with cash	1	2	3	4	5	c 201.
	Psychological comfort of paying later rather than at that moment	1	2	3	4	5	c 202.
	Effect of discounts and promotions of credit cards	1	2	3	4	5	c 203.
	I benefit from some advantages when I spend over a certain amount	1	2	3	4	5	c 204.
	Other...	1	2	3	4	5	c 205.
D-26	Have a credit card application you made been rejected in the past five years?	1>Yes 2>No					c 206.
D-27	Have you changed your main card before?	1>Yes 2>No (Skip D-29)					c 207.
D-28	If yes, what is the main reason?	1>The lower interest rates (of the new card) 2>The lower annual fee 3>The higher limit 4>The better features such as bonus points, installments and discounts 5>I changed my bank Other...					c 208.
D-29	Suppose you are going to start a new job. Which one do you choose (if you forced to choose): a job with social security benefits or a job without them but the insurance payments given in cash to you?	1>Insured job 2>Uninsured job					c 209.
D-30	Did you pay all of your last credit card bills completely? (If using one card, did you pay your last credit card bill completely?)	1>Yes (Skip D-31) 2>No (Continue)					c 210.
D-30a	If no, what is the amount you did not pay?	.....TL					c 211.
D-31	Did you make any purchases with installments in the last twelve months despite a lower cash price?	1>Yes 2>No					c 212.
D-32	Would the decline of credit card interest rates lead to an increase in your debt by increasing the amount of your statement that you do not pay?	1>Yes 2>No					c 213.
D-33	If there were any credit card bills you did not fully pay within the last twelve months, what was the maximum amount you did not pay?	.....TL 0> I paid my all credit card bills completely in last twelve months.					c 214.
D-35	Do you pay your main card's bill by direct debit?	1>Yes, I pay the full amount of my main card's bill by direct debit 2>Yes, I pay the minimum amount of my main card's bill by direct debit 3>No					c 215.

D-36	It is possible to borrow on credit cards by drawing a cash advance, with the cost of cash advance interest rates and commissions. Did you draw a cash advance in this way using your credit card in the last year?	1>Yes 2>No (Skip D-38)			c 216.
D-37	If yes, what were the reasons to draw a cash advance? MULTICODING ALLOWED		Yes	No	
		An unexpected situation that negatively affected my income occurred, such as job loss,late salary payment, etc.	1	2	c 217.
		An unexpected necessary spending came up, such as for an illness or an accident	1	2	c 218.
		My income is not enough to cover my expenses in general	1	2	c 219.
		To pay off other credit card bills.	1	2	c 220.
		Lack of cash in my hand to cover daily needs	1	2	c 221.
		Occurring cash needs while abroad	1	2	c 222.
		Other.....			c 223.
D-38	ASK ALL If you draw a 100 TL cash advance with your main card, do you know approximately how much you need to pay back after a month?	I pay back ..... TL 99> I don't know			c 224.
D-39	Have you used installment credits to close your credit card debt in the last two years? How much did you use?	Yes, _ _ _ _ _ TL 0>No, I haven't			c 225.
D-40	Were you ever delinquent in your credit card payments?	1>Yes 2>No (Skip D-42)			c 226.
D-41	If yes, what year did it happen? (The last time if more than once)	_ _ _ _ (Example: 1998, 2006)			c 227.
D-42	How much total credit card annual fees did you pay in the last year?	0>I paid nothing I paid..... TL 999> I don't know			c 228.
D-43	Did you attempt to reduce these annual fees or avoid paying them?	1>Yes 2>No			c 229.
D-44	What is your main credit card's limit?	..... TL			c 230.
D-45	What is the total of all your credit cards' limits? (Same answer as D-44 if using only one card)	..... TL			c 231.

D-46	How effective were the incidents that you heard about or went through concerning credit cards in making you showing to be more careful in your credit card spending? Please rate between 1 and 5, 5 showing it was very effective and 1 not effective at all	Not effective at all (1) (2) (3) (4) (5) Very effective	c 232.
D-47	Did you cancel any credit cards In the last two years?	1>Yes 2>No (Skip E1)	c 233.
D-48	Which banks' credit cards did you cancel?	....	c 234. c 235. c 236.
D-49	How many minutes did you spend to cancel these cards on the phone or in a bank branch?	.....	c 237.

E-FİNANCIAL CONDITION

	Please think of those with whom you share your income and expenditures as members of your household. I will now ask you questions about how you spend your household income.		
E-1	What is your average monthly kitchen expense?	....TL	c 238.
E-2	How much do you spend on fixed expenditures including rent, heating, water, electricity and telephone bills?	....TL	c 239.
E-3	Apart from the expenses above, how much do you regularly spend on fixed payments, like for insurance, health and education expenses?	....TL	c 240.
E-4	If any, how much is your monthly bank debt payment, excluding your credit card debt?	....TL	c 241.
E-5	What is your average total monthly expense, including the items above?	....TL	c 242.
E-6	If any, what is your total bank debt excluding any credit card debts?	....TL	c 243.
E-7	If any, what is your total debt to your family, friends, firms and other people?	....TL	c 244.
	Now, I will ask you questions about your income		
E-8	When you consider all income sources like wages, pension, rent income and allowance, what is your total household income?	....TL	c 245.

E-9	What is your personal monthly income from your main job and your other income sources?	....TL	c 246.
E-11	Do you have any motor vehicles like automobiles, trucks and tractors? If yes, what is the total value of these motor vehicles?	Yes, ...TL 0> No	c 247.
E-12	Do you have any property like houses, summerhouses and land? If yes, what is their total value?	Yes, ...TL 0> No	c 248.
F-DEMOGRAPHY			

F-1	Gender	1> Female 2> Male	c 249.
F-2	Birth year	.....	c 250.
F-3	Marital status	1>Bachelor 2>Married 3>Widowed 4>Divorced 5> Living separately	c 251.
F-4	How many people are there in your household? (including you)	.....	c 252.
F-5	How many of them are older than 15?	.....	c 253.
F-6	How many of the people in your household have income? (including you)	.....	c 254.
F-7	What school did you finish last?	0> No schooling / quit primary school 1> Primary school 2> Secondary school 3> High school 4> University 5> Graduate degree	c 255.
F-8	What is your current job status?	Employed, 1>Manager or specialist in the public sector 2>Civil servant 3>Worker in the public sector 4>Manager or specialist in the private sector 5>Worker or office worker in the private sector 6>Big trader, industrialist 7>Small trader, craftsman 8>Highly educated self employed (lawyer, doctor...) 9>Farmer 10>Seasonal or irregular worker Unemployed, 11>Left a job recently (less than six months ago) 12>Been looking for a job for more than six months 13>Not employed and not looking for a job	c 256.

F-9	Are you retired?	1> Yes 2> No					c 257.
F-10	Are you a student?	1> Yes 2> No					c 258.
F-11	How often do you do the activities below?	Never	Seldom	Sometimes	Frequently	Very frequently	
	Reading the newspaper	1	2	3	4	5	c 259.
	Traveling	1	2	3	4	5	c 260.
	Going out for dinner	1	2	3	4	5	c 261.
	Using the internet	1	2	3	4	5	c 262.

Thank you for answering the questions.

NAME/ SURNAME		c 263
QUARTER		c 264
STREET		c 265
GATE NO		c 266
TOWN		c 267
TELEPHONE NO -1		c 268
TELEPHONE NO -2		c 269
[Attention to surveyor! The following questions MUST be answered after leaving the subjects]		
Building type	1> Squat housing 2> Legal housing (Meduim condition) 3> Legal housing (Luxury)	c 270
Location type	1> Province center 2> Town	c 271
General observations about the conditions of the quarter	1> Very poor 2> Poor 3> Medium condition 4> Good 5> Very good	c 272
General observations about the conditions of the house	1> Very poor 2> Poor 3> Medium condition 4> Good 5> Very good	c 273
How sincere were the responses of subject during the interview?	1> Not sincere at all 2>Sincere to a small degree 3>Somewhat sincere 4> Sincere 5> Very sincere	c 274
Survey date:		c 275
Surveyor name:		c 276

frekans RESEARCH	Boğaziçi Üniversitesi	TÜBİTAK	Anket no	
			İl	
			İlçe	

Kredi Kartı Kullanımı Araştırması -Nisan 2009

İyi günler dilerim. İsmim..... Boğaziçi Universitesi'nce yürütülen ve TÜBİTAK tarafından desteklenen, kredi kartı kullanımı üzerine tamamen bilimsel amaçlı bir anket çalışması yapmaktayız. Türkiye genelinde 2500 kişiyle yapılan bu görüşmeler tesadüfi yöntemlerle seçilmiş hanelerle gerçekleştirilmektedir. Araştırmada sadece genel sonuçlar değerlendirilecek ve kişisel bilgileriniz hiç bir şekilde kullanılmayacaktır. Anketimiz yaklaşık 30 dakika sürecektir. Yardımlarınız için şimdiden teşekkür ederim.

A-GİRİŞ

A-1	Kredi kartınız var mı?	1> Evet 2> Hayır (Görüşmeyi bitiriniz)	C1.
A-2	Kredi kartı seçimi ve ödeme kararlarını siz mi veriyorsunuz?	1> Evet 2> Hayır (Görüşmeyi bitiriniz)	C2

C-BANKA SEÇİMİ

C-1	Şimdi size bankacılık hizmetleri ile ilgili bazı sorular soracağım	Hayır	Evet	
	Vadeli Hesabınız var mı? (Faiz getiren) (TL veya Döviz hesabları)	0	1	C3
	Likit Hesabınız var mı? (Elma hesabı, çalışan hesap gibi gelir getiren vadesiz hesap)	0	1	C4
	Bankanızda yatırım işlemleri yapıyor musunuz? (Döviz, Fon, Tahvil, Bono, Euro Bond, Hisse Senedi, Altın, Repo, VOB gibi)	0	1	C5
	Bankanızda bireysel emeklilik fon hesabınız var mı?	0	1	C6
	Bankanızda otomatik ödeme talimatınız var mı?	0	1	C7
	Çalışıyorsanız, maaşınız bankaya mı yatıyor? (Çalışmıyorsa 97 kodlayın)	0	1	C8
	Bankadan vergi ve sigorta ödemesi yapıyor musunuz?	0	1	C9
	Hiç araba kredisi aldınız mı?	0	1	C10
	Hiç konut kredisi aldınız mı?	0	1	C11
	Hiç ihtiyaç (tüketici) kredisi aldınız mı?	0	1	C12
	Hiç ticari kredi aldınız mı?	0	1	C13

C-2	Şimdi size sayacağım bankacılık hizmetlerini hangi sıklıkta kullanıyorsunuz? Lütfen en sık kullandığınız hizmetlere 5, hiç kullanmadığınız hizmetlere 1 verecek şekilde 1 ila 5 arasında derecelendiriz. (LÜTFEN KARTI gösteriniz)	Hiç	Nadiren	Ara sıra	Sık	Çok sık	
	İnternet bankacılığı	1	2	3	4	5	C14
	Telefon bankacılığı	1	2	3	4	5	C15
	ATM / Bankamatik	1	2	3	4	5	C16
	Havale ve EFT gibi transfer işlemleri	1	2	3	4	5	C17
	Ticari bankacılık hizmetleri (Çek, senet, leasing gibi)	1	2	3	4	5	C18
C-3	Hangi bankalarda hesabınız var? (BİRDEN ÇOK SEÇENEK İŞARETLENEBİLİR) (Eğer denek banka isimlerini hatırlayamıyor ise şıklar okunacak) UYARI: Eğer bir bankanın sadece kredi kartını kullanıyorsa, o banka da işaretlenecek	1.Akbank 2.Al Baraka Türk 3.Anadolubank 4.BankAsya 5.Citibank 6.Denizbank 7.Eurobank Tekfen 8.Finansbank 9.Fortisbank 10.Garanti Bankası 11.Halk Bankası 12.HSBC Bank 13.ING Bank 14.İş Bankası 15.Kuveyt Türk 16.Millennium Bank		17.Şekerbank 18.Tekstilbank 19.Turkish Bank 20.Turkland Bank 21. Türk Ekonomi Bankası 22.Türkiye Finans 23.Vakıfbank 24.Yapı ve Kredi Bankası 25. Ziraat Bankası		C19 C20 C21 C22 C23 C24 C25
C-4	Bu bankalardan en sık hangisini kullanıyorsunuz? (C3'te belirtilen bankalardan birisi, TEK CEVAP)	.....					C26
C-5	Yaklaşık kaç yıldır .... Bankası (C4'te belirtilen banka) ile çalışıyorsunuz?	..... yıl 96> Bir yıldan az					C27
C-6	En sık kullandığınız bu bankayı seçmenizde sayacağım nedenler ne derece etkilidir? Lütfen en çok önem verdiğiniz nedenlere 5, hiç önem vermediğiniz nedenlere 1 verecek şekilde 1 ila 5 arasında derecelendiriniz. (LÜTFEN KARTI gösteriniz)	Hiç etkili değil	Biraz etkili	Orta dere-ceili etkili	Etkili	Çok etkili	
	01.Mevduat için yüksek faiz vermesi	1	2	3	4	5	C28
	02,Hesap işletim ücretinin düşük ya da hiç olmaması	1	2	3	4	5	C29
	03.Havale, çek, senet gibi bankacılık işlemlerinin ucuz olması	1	2	3	4	5	C30

	04.Kredi alırken faiz ve masrafların düşük olması	1	2	3	4	5	C31
	05.Kredi almanın kolay olması	1	2	3	4	5	C32
	06.Haneye ait maaş veya diğer gelirlerin bu bankaya yatıyor olması	1	2	3	4	5	C33
	07.Esnafa, çiftçiye özel hizmetler sunması	1	2	3	4	5	C34
	08.İrtibatta olduğum kişilerin bu bankayı kullanması	1	2	3	4	5	C35
	09.Şube yakınlığı	1	2	3	4	5	C36
	10.Şube ağının yaygınlığı	1	2	3	4	5	C37
	11.Hizmet Kalitesi (Hız, nezaket, kolaylık ve şubelerin ortamının iç açıcı olması gibi)	1	2	3	4	5	C38
	12.Bankamatik ağının yaygınlığı	1	2	3	4	5	C39
	13.İnternet bankacılığının iyi olması	1	2	3	4	5	C40
	14.Telefon bankacılığının iyi olması	1	2	3	4	5	C41
	15.Yurtdışı işlem kolaylığı	1	2	3	4	5	C42
	16.Bankacılık hizmetlerinde güvenliğin yüksek olması	1	2	3	4	5	C43
	17.Bankanın müşterilerin ihtiyaçlarına özel hizmetler sunması	1	2	3	4	5	C44
	18.Hizmet ve ürün çeşitliliğinin çok olması	1	2	3	4	5	C45
	19.Prestijli ve iyi imajlı banka olması	1	2	3	4	5	C46
	20. Güvenilir, sağlam banka olması	1	2	3	4	5	C47
	21. Devlet bankası olması	1	2	3	4	5	C48
	22.Türk bankası olması	1	2	3	4	5	C49
	23. Yabancı banka olması	1	2	3	4	5	C50
	24. Faizsiz bankacılık uygulayan katılım bankası olması	1	2	3	4	5	C51
	25.Tanıdıklarımın tavsiyesi	1	2	3	4	5	C52
	27. İlk bankam olması	1	2	3	4	5	C53
	Diğer:		2	3	4	5	C54
C-7	En sık çalıştığınız bu bankadan (C4'te belirtilen banka) ne derece memnunsunuz?	6> Hiç memnun değilim 7> Memnun değilim 8> Ne memnunum ne değilim 9> Memnunum 10> Çok memnunum					C55
C-8	Daha önce en sık kullandığınız bankayı değiştirdiniz mi?	1>Evet 2>Hayır (C-10'a geçiniz)					C56

C-9	Evet ise, temel nedeni nedir?	1>Yeni bankanın faiz ve ücretlerinin daha uygun olması 2>Daha çeşitli ve kaliteli hizmetler sunması 3>Hane gelirlerinin yattığı bankanın değişmesi 4>İrtibatta olduğum kişilerin bu banka ile çalışması 5>Yeni bankanın şubesinin daha yakın olması Diğer...	C57
C-10	Her mevduat sahibi için bir bankaya yatırılan paranın ne kadarının devlet güvencesi altında olduğunu hatırlıyor musunuz? (Seçenekleri okuyunuz)	1> Mevduatın tamamı garanti altında 2> 100.000 TL'ye kadar olan bölümü garanti altında 3> 50.000 TL'ye kadar olan bölümü garanti altında 4> 25.000 TL'ye kadar olan bölümü garanti altında 5> Bankalardaki mevduat için hiç devlet garantisi yok 99> Hatırlamıyorum / Bilmiyorum	C58
		D- KREDİ KARTI SEÇİMİ	
	Şimdi size kredi kartlarınız ile ilgili sorular soracağım. Lütfen cevaplarınızı verirken kendi seçtiğiniz ve ödeme kararlarını kendinizin verdiği kredi kartlarını düşününüz		

D-1	Kredi kartı kullanmanızda sayacağım nedenler ne derece etkilidir? Lütfen en çok önem verdiğiniz nedenlere 5, hiç önem vermediğiniz nedenlere 1 verecek şekilde 1 ila 5 arasında derecelendiriniz.(Lütfen KARTI gösteriniz)	Hiç etkili değil	Biraz etkili	Orta dere-celi etkili	Etki li	Çok etki li	
	Nakit taşımak istememem	1	2	3	4	5	C59
	Ekstrenin tamamını ödemeyerek borçlanabilme imkanı olması	1	2	3	4	5	C60
	Nakit sıkışıklığı olduğu zamanlarda alışveriş yapabilmem	1	2	3	4	5	C61
	Nakit sıkışıklığı olduğu zamanlarda nakit avans çekebilmem	1	2	3	4	5	C62
	Taksitlerden faydalanmak istemem	1	2	3	4	5	C63
	İndirim ve akaryakıt kampanyalarından faydalanmak istemem	1	2	3	4	5	C64
	İnternet alışverişlerinde gereksinim duymam	1	2	3	4	5	C65
	Yurtdışı alışverişlerde kolaylık sağlaması	1	2	3	4	5	C66
	Rezervasyonlu işlemleri yapmada (bilet, otel vb) kolaylık sağlaması	1	2	3	4	5	C67
	Ekstrelerim sayesinde harcamalarımın dökümünü görebilmem	1	2	3	4	5	C68
	Diğer...	1	2	3	4	5	C69

D-2	Hangi bankaların hangi kredi kartlarına sahipsiniz? Sahip olduğunuz bu kartları ne sıklıkta kullanıyorsunuz? NOT: Hangi kart olduğunu hatırlamıyorsa Diğer kısmına banka ve kart bilgisi yazılacak.	Varolanlarıişaretle	Hiç	Nadiren	Ara sıra	Sık	Çok sık	
	Akbank –Axess	1	1	2	3	4	5	C70
	Akbank –Wings	2	1	2	3	4	5	C71
	Akbank- Fish	3	1	2	3	4	5	C72
	Al Baraka Türk	4	1	2	3	4	5	C73
	Anadolubank	5	1	2	3	4	5	C74
	Bank Asya	6	1	2	3	4	5	C75
	Citibank	7	1	2	3	4	5	C76
	Citibank –Citiaxess	8	1	2	3	4	5	C77
	Denizbank	9	1	2	3	4	5	C78
	Denizbank-Bonus	10	1	2	3	4	5	C79
	Eurobank Tekfen	11	1	2	3	4	5	C80
	Finansbank (CardFinans)	12	1	2	3	4	5	C81
	Fortisbank	13	1	2	3	4	5	C82
	Fortisbank -World	14	1	2	3	4	5	C83
	Garanti Bankası –Bonus	15	1	2	3	4	5	C84
	Garanti Bankası –Flexi	16	1	2	3	4	5	C85
	Garanti Bankası -Shop&Miles	17	1	2	3	4	5	C86
	Garanti Bankası -American Express	18	1	2	3	4	5	C87
	Halk Bankası – Advantage	19	1	2	3	4	5	C88
	Halk Bankası – Halkcard	20	1	2	3	4	5	C89
	HSBC Bank- Advantage	21	1	2	3	4	5	C90
	ING Bank - Maximum	23	1	2	3	4	5	C91
	ING Bank – Bonus	24	1	2	3	4	5	C92
	İş Bankası (Maximum)	25	1	2	3	4	5	C93

	Kuveyt Türk	26	1	2	3	4	5	C94
	Millenium Bank	27	1	2	3	4	5	C95
	Şekerbank	28	1	2	3	4	5	C96
	Şekerbank –Bonus	29	1	2	3	4	5	C97
	Tekstilbank	30	1	2	3	4	5	C98
	Tekstilbank –Advantage	31	1	2	3	4	5	C99
	Turkish Bank	32	1	2	3	4	5	C100
	Turkland Bank	33	1	2	3	4	5	C101
	Türk Ekonomi Bankası (TEB)	34	1	2	3	4	5	C102
	Türk Ekonomi Bankası (TEB)- Bonus	35	1	2	3	4	5	C103
	Türkiye Finans	36	1	2	3	4	5	C104
	Vakıfbank – Vakıf	37	1	2	3	4	5	C105
	Vakıfbank – World	38	1	2	3	4	5	C106
	Vakıfbank - Rail&Miles	39	1	2	3	4	5	C107
	Yapı ve Kredi (World)	40	1	2	3	4	5	C108
	Ziraat Bankası –Ziraat	41	1	2	3	4	5	C109
	Ziraat Bankası –Maximum	42	1	2	3	4	5	C110
	Diğer	43	1	2	3	4	5	C111
D-3a	[Eğer sadece bir kredi kartına sahipse sorulacak, D-3a'dan sonra D-6'ya geçilecek] Sadece bir kredi kartı kullanmanızda sayacağım nedenler ne derece etkilidir? Lütfen en çok önem verdiğiniz nedenlere 5, hiç önem vermediğiniz nedenlere 1 verecek şekilde 1 ila 5 arasında derecelendiriniz. (Lütfen KARTI gösteriniz)		Hiç etkili değil	Biraz etkili	Orta derec eli etkili	Etki li	Çok etki li	
	Birden fazla yıllık kullanım ücreti ödemek istememem		1	2	3	4	5	C112
	Yeni bir karta başvurunun zor olması		1	2	3	4	5	C113
	Birden fazla kartın işlemleriyle uğraşmak istememem		1	2	3	4	5	C114
	Birden fazla kartla daha fazla harcama yapacağımı düşünmem		1	2	3	4	5	C115
	Başka kartlara başvurularımın reddedileceğini düşünmem		1	2	3	4	5	C116

D-3b	[Birden fazla kredi kartına sahipse sorulacak] Birden fazla kredi kartınızın olmasında sayacağım nedenler ne derece etkilidir? Lütfen en çok önem verdiğiniz nedenlere 5, hiç önem vermediğiniz nedenlere 1 verecek şekilde 1 ila 5 arasında derecelendiriniz. (Lütfen KARTI gösteriniz)	Hiç etkili değil	Biraz etkili	Orta derec eli etkili	Etki li	Çok etkili	
	Farklı taksitlendirme olanaklarından yararlanma	1	2	3	4	5	C117
	Bonus, parapuan, mil gibi farklı özelliklerden yararlanma	1	2	3	4	5	C118
	Farklı indirim ve akaryakıt kampanyalarından yararlanma	1	2	3	4	5	C119
	Farklı hesap kesim tarihlerinden yararlanma	1	2	3	4	5	C120
	Prestij sağlaması	1	2	3	4	5	C121
	Tek kartın limitinin yetmemesi	1	2	3	4	5	C122
	Bazı kartlarımın faiz oranlarının daha düşük olması	1	2	3	4	5	C123
	Diğer kartta sorun çıkması ihtimaline karşı tedbir olarak	1	2	3	4	5	C124
D-4	[Birden fazla kredi kartı varsa sorulacak] Tüm kredi kartlarınızı düşünün. Bunlar arasında en çok kullandığınız kartı asıl kart olarak adlandıralım. Hangi kredi kartınızı asıl kartınız olarak tanımlarsınız? (D2'de SEÇİLENLERDEN BİRİSİ) (Eğer tek kredi kartı varsa o kartı asıl kart olarak ele alınız)	Bankanın adı: ..... Kartın adı:					C125
D-5	[Birden fazla kredi kartı kullanıyorsa sorulacak] Asıl kartınızla toplam kredi kartı harcamalarınızın yüzde kaçını yapıyorsunuz?	%___					C126
D-6	HERKESE SORULACAK Asıl kartınızı nasıl edindiniz? (Tek kartı olanların bu kartı asıl kartlarıdır)	1>Hesabımın olduğu bankaya kredi kartı başvurusu yaparak 2>Hesabımın olmadığı bir bankaya kredi kartı başvurusu yaparak 3>Hesabımın olduğu bankadan teklif ettiler 4>Hesabımın olmadığı bir bankadan teklif ettiler					C127
D-7	Yaklaşık kaç yıldır asıl kart olarak aynı bankanın kredi kartını kullanıyorsunuz?	..... . yıl 96> Bir yıldan az					C128

D-8	Bu kartı almaya karar verirken piyasadaki kredi kartlarını ne kadar araştırdınız? Çok detaylı araştırdıysanız 5,hiç araştırmadıysanız 1 olacak şekilde 1 ila 5 arasında bir derece veriniz.	Hiç araştırma yapmadım (1) (2) (3) (4) (5) Çok detaylı araştırma yaptım					C129
D-9	Şimdi size sayacağım nedenler bu kartı (asıl kart olarak) kullanmanızda ne derece etkilidir? Lütfen en çok önem verdiğiniz nedenlere 5, hiç önem vermediğiniz nedenlere 1 verecek şekilde 1 ila 5 arasında derecelendiriniz. (LÜTFEN KARTI gösteriniz)	Hiç etkili değil	Biraz etkili	Orta dere-ceeli etkili	Etkili	Çok etkili	
	Sürekli çalışılan bankanın kredi kartı olması	1	2	3	4	5	C130
	Faiz oranlarının düşüklüğü	1	2	3	4	5	C131
	Yıllık aidatın az ya da hiç olmaması	1	2	3	4	5	C132
	Limitinin yüksek olması	1	2	3	4	5	C133
	Daha çok bonus/parapuan/mil vs. veriyor olması	1	2	3	4	5	C134
	Daha fazla taksit imkânı sunması	1	2	3	4	5	C135
	Akaryakıt alışverişlerinde promosyon sağlaması	1	2	3	4	5	C136
	Sigorta, Promosyon, Vale Parking gibi ekstra olanaklar sağlaması	1	2	3	4	5	C137
	Sanal kart hizmeti sunması	1	2	3	4	5	C138
	Daha çok yerde indirim kampanyası sunması	1	2	3	4	5	C139
	Şube ve Bankamatik ağının yaygın olması	1	2	3	4	5	C140
	İnternet ve telefonla verilen kredi kartı hizmetlerinin iyi olması	1	2	3	4	5	C141
	Kredi kartı reklamlarının bilgi verici ve etkileyici olması	1	2	3	4	5	C142
	Prestijli bir kart olması	1	2	3	4	5	C143
	Takım, okul gibi yakınlık duyduğum bir kurumun kartı olması	1	2	3	4	5	C144
	İlk kullandığım kart olması	1	2	3	4	5	C145
	Tanıdıklarımın tavsiyesi	1	2	3	4	5	C146
	Ailemin bu kartı kullanıyor olması	1	2	3	4	5	C147
	Diğer.....		2	3	4	5	C148
D-9a	Asıl kredi kartınız olarak nitelendirdiğimiz bu karttan (D4'te belirtilen kart) ne derece memnunsunuz?	1>Hiç memnun değilim 2>Memnun değilim 3>Ne memnunum ne değilim 4>Memnunum 5>Çok memnunum					C149
D-10	Genel olarak bir ay içinde yaptığınız harcamaların yüzde kaçını kredi kartı ile yapıyorsunuz?	%.....					C150

D-10a	Tüm kredi kartlarınızla ayda ortalama ne kadar harcama yapıyorsunuz?	..... TL			C151
D-11	Tüm kredi kartlarınızı düşününüz. Son 12 ay içinde, kaç ay asgari (minimum) ödeme miktarının altında ödeme yaptınız?	0> Hiç asgari ödeme miktarının altında yatırdığım olmadı, hep asgari miktar veya üzerinde yatırıyorum(D-13'e geçiniz) .....ay			C152
D-12	Şimdi size sayacağım nedenlerden dolayı mı? (BİRDEN ÇOK SEÇENEK İŞARETLENEBİLİR)		Evet	Hayır	
		Ödeme tarihini unutmam	1	2	C153
		Ödemeye fırsat bulamamam	1	2	C154
		İş kaybı, maaş yatmaması gibi gelirimi olumsuz etkileyen beklenmedik bir durum	1	2	C155
		Hastalık ve kaza gibi aniden ortaya çıkan mecburi harcamalar	1	2	C156
		Farkında olmadan fazla harcama yapmış olmam	1	2	C157
		Bazı harcamalarımı kredi kartıyla zamana yaymam	1	2	C158
		Genel olarak ihtiyaçlarımı karşılamaya gelirimin yetmemesi	1	2	C159
		Diğer.....			C160
D-13	Son 12 ay içinde, kaç ay ekstrenizdeki tutarın tamamından az ama asgari miktardan fazla ödeme yaptınız? (Sorulursa, tüm kredi kartları için olduğu söylenecek)	0>Hiç, her zaman borcun tamamını ödedim(D-15'e geçiniz) ..... ay			C161
D-14	Şimdi size sayacağım nedenlerden dolayı mı? (BİRDEN ÇOK SEÇENEK İŞARETLENEBİLİR)		Evet	Hayır	
		İş kaybı, maaş yatmaması gibi gelirimi olumsuz etkileyen beklenmedik bir durum	1	2	C162
		Hastalık ve kaza gibi aniden ortaya çıkan mecburi harcamalar	1	2	C163
		Farkında olmadan fazla harcama yapmış olmam	1	2	C164
		Bazı harcamalarımı kredi kartıyla zamana yaymam	1	2	C165

		Genel olarak ihtiyaçlarımı karşılamaya gelirimin yetmemesi	1	2	C166
		Diğer.....	1	2	C167
D-15	Alışveriş (Akdi) Faiz Oranı: Asgari miktarı ödedikten sonra, kalan miktara uygulanan faiz oranıdır. En çok kullandığınız kartınızın aylık alışveriş (akdi) faiz oranını biliyor musunuz?	Evet Alışveriş (Akdi) Faiz Oranı %__,_ 99>Hayır, bilmiyorum			C168
D-16	Gecikme Faiz Oranı: Asgari miktarın altında ödeme yapılması sonucu uygulanan faiz oranıdır. En çok kullandığınız kartınızın aylık gecikme faiz oranını biliyor musunuz?	Evet Gecikme Faiz Oranı %__,__ 99>Hayır, bilmiyorum			C169
D-17	Bildiğiniz kadarıyla piyasada sizin kredi kartınızdan daha düşük alışveriş faiz oranlı kredi kartı var mıdır?	1>Evet, var 2>Hayır, yok 99>Fikrim yok			C170
D-18	Şu anda kredi kartı alışveriş faiz oranları aylık %4 civarındadır. Kullandığınız karttan daha düşük faiz uygulayan bir kredi kartı olduğunu öğrenseniz bu karta geçer misiniz?	1>Evet (Devam ediniz) 2>Hayır (D-19'a geçiniz)			C171
D-18a	Mesela, %3 alışveriş faizi uygulayan bir kart olsa bu karta geçer misiniz?	1>Evet (D-19'a geçiniz) 2>Hayır (Devam ediniz)			C172
D-18b	Peki, %2 alışveriş faizi uygulayan bir kart olsa bu karta geçer misiniz?	1>Evet (D-19'a geçiniz) 2>Hayır (D-19'a geçiniz)			C173

D-19	Şimdi size daha düşük faizli başka bir kredi kartına geçmeyi zorlaştırabilecek bazı nedenler sayacağım. Bunlar sizin için ne derecede etkilidir? Lütfen en çok önem verdiğiniz nedenlere 5, hiç önem vermediğiniz nedenlere 1 verecek şekilde 1 ila 5 arasında derecelendiriniz. (LÜTFEN KARTI gösteriniz)	Hiç etkili değil	Biraz etkili	Orta dere-celi etkili	Etkili	Çok etkili	
	Araştırmak istememem	1	2	3	4	5	C174
	Başvurma ve iptal ettirme gibi işlemlerle uğraşmak istememem	1	2	3	4	5	C175
	Bankamı değiştirmek istememem	1	2	3	4	5	C176
	Düşük faizli kartların yıllık kullanım ücretlerinin yüksek olması	1	2	3	4	5	C177
	Şu anki yüksek borcum nedeniyle diğer bankalara başvurumun olumsuz sonuçlanacağını düşünmem	1	2	3	4	5	C178
	Başka nedenlerle başvurumun olumsuz sonuçlanacağını düşünmem	1	2	3	4	5	C179
	Yeni kartın limitinin düşük olacağını düşünmem	1	2	3	4	5	C180

	Kredi kartına hiç borçlanmadığım veya az miktarda ve kısa sürelerle borçlandığım için faizlerle ilgilenmiyorum	1	2	3	4	5	C181
	Kredi kartları arasındaki faiz farkının fazla olmadığını düşünmem	1	2	3	4	5	C182
	Taksit, bonus/parapuan ve mil gibi kredi kartının diğer özelliklerinden vazgeçmek istememem	1	2	3	4	5	C183
	Diğer:.....		2	3	4	5	C184
D-20	Piyasadaki kredi kartlarının özelliklerini öğrenmenizde sayacağım yöntemler ne derece etkilidir? Lütfen en çok önem verdiğiniz yöntemlere 5, hiç önem vermediğiniz nedenlere 1 verecek şekilde 1 ila 5 arasında derecelendiriniz. (LÜTFEN KARTI gösteriniz)	Hiç etkili değil	Biraz etkili	Orta derecede etkili	Etkili	Çok etkili	
	Tanıdıklarımdan öğrenirim	1	2	3	4	5	C185
	Telefon ederek veya şubeye giderek öğrenirim	1	2	3	4	5	C186
	İnternette araştırma yaparım	1	2	3	4	5	C187
	Reklamlardan öğrenirim	1	2	3	4	5	C188
	Diğer:.....		2	3	4	5	C189
D-21	Size kredi kartı özellikleri hakkında araştırma yapmayı zorlaştıran bir takım nedenler sayacağım. Bu nedenler sizin için ne derece etkilidir? Lütfen en çok önem verdiğiniz nedenlere 5, hiç önem vermediğiniz nedenlere 1 verecek şekilde 1 ila 5 arasında derecelendiriniz. (LÜTFEN KARTI gösteriniz)	Hiç etkili değil	Biraz etkili	Orta derecede etkili	Etkili	Çok etkili	
	Uğraşmak istememem	1	2	3	4	5	C190
	Nasıl araştıracağımı bilememem	1	2	3	4	5	C191
	Kredi kartlarının birbirinden farklı olmadığını düşünmem	1	2	3	4	5	C192
D-22	Kredi kartınız olmadığını varsayın. Yeni bir kredi kartı almadan önce piyasadaki kredi kartlarının özelliklerini ne kadar araştırırsınız? Çok detaylı araştırırsanız 5,hiç araştırmazsanız 1 olacak şekilde 1 ila 5 arasında bir derece veriniz.	Hiç araştırmam (1) (2) (3) (4) (5) Çok detaylı araştırırım					C193
D-23	Başka bir kredi kartına geçmek istediğinizi varsayın. Bunu yaparken sayacağım özelliklerden sizce önemli olanlarını önem sırasına göre (en önemlisini 1. sıraya koyarak) sıralayınız.	1>Faiz oranları 2>Yıllık ücret 3>Limit 4>Bonus, taksit, indirim ve seyahat mili gibi diğer özellikler 5>Hangi bankanın kartı olduğu					C194 1.önemli C195 2.önemli

	(LÜTFEN KARTI gösteriniz)						C196 3.öne mli C197 4.öne mli C198 5.öne mli
D-24	Kredi kartınız olduğu için bazen gereksiz alışverişler yaptığınızı düşünüyor musunuz?	3> Evet 4> Hayır (D-26'ya geçiniz)					C199
D-25	Evet ise, sayacaklarım bunda ne derece etkilidir? Lütfen en çok önem verdiğiniz nedenlere 5, hiç önem vermediğiniz nedenlere 1 verecek şekilde 1 ila 5 arasında derecelendiriniz. (LÜTFEN KARTI gösteriniz)	Hiç etkili değil	Biraz etkili	Orta dere-celi etkili	Etkili	Çok etkili	
	Taksitler nedeniyle, ödeyeceğim aylık rakamı düşük bulmam	1	2	3	4	5	C200
	Nakit ödemediğim için ne kadar harcama yaptığımı takip edemiyor olmam	1	2	3	4	5	C201
	Ödemeyi o an değil daha sonra yapıyor olmanın psikolojik rahatlığı	1	2	3	4	5	C202
	Kredi kartı indirim ve promosyonlarının cazip gelmesi	1	2	3	4	5	C203
	Belirli bir miktarın üzerinde harcama yaptığımda bazı avantajlardan yararlanıyor olmam	1	2	3	4	5	C204
	Diğer...	1	2	3	4	5	C205
D-26	Son beş yıl içerisinde olumsuz sonuçlanan kredi kartı başvurunuz oldu mu?	1>Evet 2>Hayır					C206
D-27	Daha önce asıl kartınızı değiştirdiniz mi?	1>Evet 2>Hayır (D-29'a geçiniz)					C207
D-28	Evet ise, temel nedeni nedir?	1>Yeni kartın faiz oranı daha düşük 2>Yıllık ücreti daha düşük 3>Limiti yüksek 4>Bonus, taksit ve indirim gibi özellikleri daha iyi 5>Bankamı değiştirdim Diğer...					C208
D-29	Yeni bir işe başlayacağınızı düşünün. Sigortalı bir iş ile sigorta ödemelerinin nakit olarak size verildiği sigortasız bir iş arasında seçim yapmak durumunda kalsanız hangisini seçersiniz?	1>Sigortalı iş 2>Sigortasız iş					C209
D-30	En son gelen ekstrelerinizin tamamını ödediniz mi? (Tek kart kullanıyorsa,en son gelen ekstrenin tamamını ödedi mi?)	1>Evet (D-31'e geçiniz) 2>Hayır (Devam ediniz)					C210
D-30a	Hayır ise ne kadarını ödemediniz?	.....TL					C211

D-31	Son 12 ay içerisinde, nakit fiyatı daha düşük olmasına rağmen, taksitli alışveriş yaptınız mı?	1>Evet 2>Hayır			C212
D-32	Kredi kartı faizlerinin azalması, ekstrelerinizde ödemediğiniz miktarı artırarak, borçlanmanızda artışa neden olur mu?	1>Evet 2>Hayır			C213
D-33	Son 12 ay içinde, tamamını ödemediğiniz bir ekstreniz olduysa, ödemediğiniz en yüksek miktar ne kadardır?	.....TL 0> Son 12 ay içinde hep tamamını ödedim			C214
D-35	Asıl kredi kartınızı otomatik ödemeyle mi ödüyorsunuz?	1>Evet, tamamını otomatik ödeme ile ödüyorum 2>Evet, asgarisini otomatik ödeme ile ödüyorum 3>Hayır			C215
D-36	Belli bir faiz ve komisyon ücreti karşılığında nakit avans çekerek kredi kartına borçlanmak mümkündür. Son bir yıl içinde, bu şekilde kredi kartınızla nakit avans çektiniz mi?	1>Evet 2>Hayır (D-38'e geçiniz)			C216
D-37	Evet ise, sayacaklarımdan hangileri kredi kartı ile nakit çekmenizde etkili oldu? (BİRDEN ÇOK SEÇENEK İŞARETLENEBİLİR)		Evet	Hayır	
		İş kaybı, maaş yatmaması gibi gelirimi olumsuz etkileyen beklenmedik bir durum	1	2	C217
		Hastalık ve kaza gibi aniden ortaya çıkan mecburi harcamalar	1	2	C218
		Genel olarak ihtiyaçlarımı karşılamaya gelirimin yetmemesi	1	2	C219
		Diğer kredi kartının borcunu ödemek için	1	2	C220
		Günlük bir ihtiyacı karşılamak istediğimde yanımda nakit bulunmaması	1	2	C221
		Yurt dışında iken nakit ihtiyacımın çıkması	1	2	C222
		Diğer.....			C223
D-38	HERKESE SORULACAK Asıl kartınızla 100 TL nakit avans çekseniz bir ay sonra yaklaşık ne kadar geri ödeme yapmanız gerekeceğini biliyor musunuz?	..... TL olarak geri öderim 99> Bilmiyorum			C224
D-39	Kredi kartı borcunuzu kapatmak için son 2 yıl içinde ihtiyaç kredisi aldınız mı? Ne kadar aldınız?	Evet, _ _ _ _ _ TL 0>Hayır, almadım			C225

D-40	Kredi kartınızın takibe girdiği oldu mu?	1>Evet 2>Hayır (D-42'ye geçiniz)	C226
D-41	Evet ise, hangi yıl oldu? (Birden fazla ise en sonuncusu)	_ _ _ _ (1998, 2006 gibi yazılacak)	C227
D-42	Son bir yıl içerisinde, toplam ne kadar kredi kartı yıllık kullanım ücreti ödediniz?	0>Hiç ödemedim ..... TL ödedim 999>Bilmiyorum	C228
D-43	Yıllık kullanım ücretini azaltmak ya da hiç ödememek için bir girişimde bulundunuz mu?	1>Evet 2>Hayır	C229
D-44	Asıl kartınızın limiti ne kadardır?	..... . TL	C230
D-45	Tüm kredi kartlarınızın toplam limiti ne kadardır? (Tek kredi kartı varsa D44 ile aynı cevap yazılacak)	..... TL	C231
D-46	Kredi kartları hakkındaki duyduğunuz ve yaşadığınız olaylar, kredi kartı harcamalarınızda daha dikkatli olmanızda ne derece etkili olmuştur? Lütfen, çok etkili olduysa 5, hiç etkisi olmadıysa 1 verecek şekilde derecelendiriniz.	Hiç etkili değil (1) (2) (3) (4) (5) Çok etkili	C232
D-47	Son 2 yıl içerisinde herhangi bir kredi kartınızı iptal ettirdiniz mi?	1>Evet 2>Hayır (E1'e geçiniz)	C233
D-48	Hangi bankaların kredi kartlarını iptal ettirdiniz?	....	C234 C235 C236
D-49	Bu kartları iptal ettirmek için telefonda veya şubede toplam kaç dakika harcadınız?	....	C237

E-FİNANSAL DURUM			
	Gelirinizi ve harcamalarınızı paylaştığınız kişileri hane halkı olarak düşününüz . Şimdi size hane gelirinizi nasıl harcadığınıza dair sorular soracağım		
E-1	Ayda ortalama ne kadar mutfak harcaması yapıyorsunuz?	....TL	C238
E-2	Gelirinizin kaç lirasını kira, ısınma giderleri, su, elektrik, telefon faturalarından oluşan sabit giderleriniz için harcıyorsunuz?	....TL	C239
E-3	Bunların dışında sigorta primi, sağlık ve eğitim harcamaları gibi düzenli olarak yaptığınız sabit aylık ödemeleriniz ne kadardır?	....TL	C240
E-4	Varsa, kredi kartı dışındaki banka borçlarınız için aylık ödemeleriniz ne kadardır?	....TL	C241
E-5	Demin saydıklarım dahil, ortalama aylık harcamanızın ne kadar olduğunu söyler misiniz?	....TL	C242
E-6	Varsa, kredi kartı haricinde bankalara olan toplam borcunuz ne kadardır?	....TL	C243
E-7	Varsa, ailenize, arkadaşlarınıza, işyerlerine ve diğer şahıslara olan toplam borcunuz ne kadardır?	....TL	C244
	Şimdi size gelirlerinize dair sorular soracağım		
E-8	Maaş, ücret, emekli maaşı, kira geliri, nafaka gibi tüm gelir kaynaklarınızı düşünerek, hanenizin aylık toplam geliri ne kadardır?	....TL	C245
E-9	Asıl işinizden ve diğer gelir kaynaklarından elde ettiğiniz kişisel aylık geliriniz ne kadardır?	....TL	C246
E-11	Otomobil, kamyon, traktör gibi motorlu taşıtlarınız var mı? Varsa toplam değeri yaklaşık ne kadardır?	Var, ...TL 0> Yok	C247
E-12	Konut, yazlık, arsa gibi taşınmazlarınız var mı? Varsa toplam değeri yaklaşık ne kadardır?	Var, ...TL 0> Yok	C248

F-DEMOGRAFİ

F-1	Cinsiyet	1> Kadın 2> Erkek	C249
F-2	Doğum Yılınız	.....	C250
F-3	Medeni Durum	1>Bekar 2>Evli 3>Dul 4>Boşanmış 5> Ayrı yaşıyor	C251
F-4	Hanenizde toplam kaç kişi yaşıyor? (siz dâhil)	.....	C252
F-5	Hanenizde yaşayanlardan kaçı 15 yaşın üzerinde?	.....	C253
F-6	Hanenizde kaç kişinin geliri var? (siz dâhil)	.....	C254
F-7	En son hangi okulu bitirdiniz?	0> Hiç okula gitmemiş-ilkokul terk 1>İlkokul 2>Ortaokul (veya İlköğretim) 3>Lise 4>Üniversite 5>Yüksek Lisans (veya sonrası)	C255
F-8	Şu anki istihdam (çalışma) durumunuz nedir?	Çalışıyorum, 1>Bir kamu kurumunda yönetici / uzman 2>Devlet memuru (yönetici / uzman hariç) 3>Bir kamu kuruluşunda işçi 4>Özel sektörde yönetici / uzman 5>Özel sektörde işçi ya da büro çalışanı 6>Büyük tüccar, sanayici 7>Kendi işinde çalışan esnaf, zanaatkâr, küçük tüccar 8>Yüksek öğrenimli serbest meslek sahibi (avukat, doktor, mühendis vb.) 9>Çiftçi 10>Mevsimsel veya düzensiz çalışan Çalışmıyorum, 11>İşten yeni ayrıldım (6 aydan daha az) 12>6 aydan uzun süredir iş arıyorum 13>Çalışmıyorum, iş de aramıyorum	C256
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F-11	Aşağıdaki aktiviteleri hangi sıklıkta yapıyorsunuz?	Hiç	Nadiren	Ara sıra	Sık	Çok sık	
	Gazete okuma	1	2	3	4	5	C259
	Seyahate/Tatile çıkma	1	2	3	4	5	C260
	Akşam yemeği için dışarı çıkma	1	2	3	4	5	C261

	İnternet kullanma	1	2	3	4	5	C262

Sorularımıza cevap verdiğiniz için teşekkür ederiz.

İSİM/ SOYAD		C263
MAHALLE		C264
SOKAK/CADDE		C265
BİNA NO, DAİRE NO		C266
İLÇE		C267
TELEFON NO -1		C268
TELEFON NO -2		C269

[Anketör dikkat! Aşağıdaki soruları denekten ayrıldıktan sonra MUTLAKA cevaplayınız]

Görüşülen kişinin oturduğu bina:	1> Gecekondu	2> İmarlı Orta	3> İmarlı Lüks		C270
Anketin yapıldığı yerleşim tipi:	1> İl merkezi	2> İlçe merkezi			C271
Görüşme yapılan mahallenin genel durumu ile ilgili gözlem	1> Çok yoksul durumda	2> Yoksul	3> Orta	4> İyi 5> Çok iyi	C272
Görüşme yapılan evin genel durumu ile ilgili gözlem	1> Çok yoksul durumda	2> Yoksul	3> Orta	4> İyi 5> Çok iyi	C273
Görüşme esnasında deneğin verdiği yanıtlar ne derece samimi idi?	1> Hiç samimi değil	2> Samimi değil	3> Orta	4> Samimi 5> Çok samimi	C274
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