

CREDIT CARD LITERACY
AMONG UNIVERSITY STUDENTS

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Thesis Abstract

Okan Kumbaracı, “Credit Card Literacy Among University Students”

The aim of this study is to analyze university students’ credit card knowledge level, learning ways in which they acquire this knowledge and their credit card payment practices.

The data was collected by an instrument including Credit Card Knowledge Test (CCKT) developed by the researcher; questions related with the demographic characteristics of the subjects; questions related with credit card payment practices of subjects; and structured interview questions in order to determine learning ways in which subjects acquire knowledge of credit cards. The survey instrument was given to a sample of 95 subjects registered at Boğaziçi University Summer School 2010.

Quantitative and qualitative analysis are used in the study. Content analysis was applied to analyze the interviews in order determine participants’ learning experiences related to credit cards. Descriptive statistics were employed to determine participants’ level of credit card knowledge, credit card payment practices and, to analyze whether independent variables of the study have any influence on credit card knowledge of the subjects.

As a result, credit card knowledge level of the sample was found to be low. Number of credit cards of the respondents was the only independent variable which showed significant differences in credit card knowledge of the respondents. It was also found that university students acquire knowledge of credit cards by informal learning.

Tez Özeti

Okan Kumbaracı, “Üniversite Öğrencilerinin Kredi Kartı Okuryazarlığı ”

Bu çalışmanın amacı, üniversite öğrencilerinin kredi kartına ilişkin bilgi düzeylerini, bu bilgiyi öğrenme şekillerini ve kredi kartı ödeme uygulamalarını incelemektir.

Araştırmanın verileri araştırmacı tarafından geliştirilen Kredi Kartı Bilgi Testi (CCKT), örneklemin demografik özelliklerine ve kredi kartı ödeme uygulamalarına ilişkin sorularla örneklemin kredi kartı bilgilerini nasıl edindiğine ilişkin yapılandırılmış sorulardan oluşan bir ölçme aracı ile toplanmıştır. Ölçme aracı, Boğaziçi Üniversitesi 2010 Yaz Okuluna kayıtlı 100 öğrenciye uygulanmıştır.

Tezde nicel ve nitel çözümleme yöntemleri beraber kullanılmıştır. Görüşme verilerinin analizinde katılımcıların kredi kartına ilişkin öğrenme deneyimlerinin belirlenmesi için içerik analizi kullanılmıştır. Katılımcıların kredi kartına ilişkin bilgi düzeylerinin, kredi kartı ödeme uygulamalarının ve araştırmanın bağımsız değişkenlerinin örneklemin kredi kartı bilgi düzeyine etkisinin belirlenmesinde betimsel istatistik yöntemleri kullanılmıştır.

Sonuç olarak, örneklemin kredi kartına ilişkin bilgi düzeyleri düşük bulunmuştur. Katılımcıların kredi kartı bilgi düzeylerinde sadece sahip oldukları kredi kartı sayısı bağımsız değişkeninin anlamlı bir fark oluşturduğu gözlemlenmiştir. Ayrıca üniversite öğrencilerinin kredi kartı bilgilerini algın öğrenme yoluyla edindikleri saptanmıştır.

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CHAPTER I

INTRODUCTION

No doubt life has become credit oriented in Turkey especially within the last two decades. The most common and available form of the credit is the credit cards. With competitive marketing strategies of the banking sector in credit cards, availability of this banking product has increased. As a result, a striking increase in the number of credit cards has become inevitable. While number of credit cards was 19,863,167 in 2003, it has risen to 44.392.614 in 2009 (Interbank Card Centre [ICC], 2010). Within six years, number of active credit cards increased more than double. Regardless of the marketing strategies and supply volume of the credit cards issuers, the above data implies that there has been an increasing demand for the credit card ownership. This demand shows itself in the number of transactions and in transaction volumes.

Between 2003 and 2009, number of credit card transactions increased from 829,700,000 to 1,848,000,000 while credit card transaction volume increased from 39,415,000 TL to 202,842,000 TL (ICC, 2010). As the number of credit card transactions increased more than double, the transaction volume of the credit cards increased within the same period about five times. The data above implies that credit card usage has been increasing. People have begun to use their credit cards in their shopping.

The boosting graphic of the credit cards reflects a change in the life styles of people (Birsen, 2004). The reason for this change is that credit cards are widely marketed and as Klein (1999, p. vii) concluded that their usage “permits the purchase of previously unaffordable goods and services”. In this case, the problem is not using credit cards, but using credit cards as if they are money. Kültür, Kaplan and Kaplan

(2002, p. 300) state that “credit card is an indirect way in measurement of money. For this reason, paying by money and paying by credit cards differ in terms of budget management. In the former, one’s budget is limited to the money s/he has. Whenever her or his money finishes s/he stops buying. Whereas in the latter one, the budget is not limited to money but to the limit of the credit card which is usually more than one’s actual budget.

Although the number of credit cards and transaction volumes has increased, gross national product per capita has not increased. The sharp increase in credit usage resulted in an increase in the amount of debt. Both in consumer credits and credit cards number of debtors have increased. According to Interbank Card Centre (2010), number of people who did not pay their consumer credit was 3,791 in 2005 and it increased to 671,106 in 2009 in Turkey; in the same period number of people who did not pay their credit card debts increased from 43,239 to 1,290,579. These numbers do not include people who are late on their payment or revolving their balances. These people did pay their debts over a certain period of time and were subjected to legitimate proceedings.

Klein (1999, p. vii), in today’s postmodern society, according to “individuals from every social class position and virtually every occupation or profession accept debt as a way of life”. However, when debt combines with lack of knowledge, results would be drastic: The number of debtors continues to increase as the amount of debt volumes. This situation is not specific to Turkey. According to the United States Federal Reserve (2010), outstanding consumer debts have been increasing fast. In a study of credit card debt owners it was found that I”mportant portion of the credit card holders lack essential knowledge about interest rates and interest applications on their cards” (Ceylan, 2006, p. 104).

University students with their views, trends and tendencies are very important for any country since the future is expected to be shaped by them. In 2009 there were 1,746,534 university students registered at both public and private universities' formal education programs (Ministry of National Education General Directorate for Higher Education, 2010). In 2009, population of Turkey was 72,561,312 (Turkish Statistics Institute [TUIK], 2010). University students constitute 2.4% of the Turkish population. Number of university students who hold at least one credit card is increasing day by day. According to Kitapçı (2009), two thirds of the university students hold credit cards in Turkey. Studies conducted in the U.S.A. have also the similar results in terms of percentage of students holding credit cards. (Jamba-Joyner, Howard-Hamilton, & Mamarchew 2000; Mae, 2005; Xiao, Noring, & Anderson 1995). Yurtseven (2008, p. 123) asserts "By the year 2005, number of university students having credit cards reached 500,000". Numbers of card holders are increasing similar to credit card statistics mentioned previously. However, there is no data available at the official institutions about the number of university students who do not pay credit card debts that is expected to increase.

Although there is no empirical data in literature on Turkey, most of the studies in the U.S.A., Australia and Russia show that university students are lack of essential credit card knowledge as well as financial knowledge (Bradshaw & Evers-Lush, 1993; Ludlum, & Moskalionov, 2010; Mae, 2005; Mandell, 2008; Manning, 2000; Moore, 2004; Robb, 2007; Robles, 2004; Worthington, 2006; Worthington, 2008). Similarly, students are found to be unaware of the interest charges which begin to accrue on purchases and what the current interest rate is on their card (Markovich & DeVaney, 1997; Warwick & Mansfield, 2000). Similar results attract attention of the credit card companies as well.

University students are found to be both a profitable niche for the credit card institutions and loyal candidates, and lifelong customers. For Cude et al. (2006) the financial decisions students make in college have an important influence on their financial situation after college. Unfortunately, solicitations of credit cards on university campuses are not controlled. Having agreements with banks to collect students' fees and tuitions, most universities allow credit card promotions on their campuses.

Smith (1999, p. 34) summarizes the results of credit card solicitations on campuses and states that “ the unrestricted marketing of credit cards on college campuses is so aggressive that it now poses a greater threat than alcohol and sexually transmitted diseases”. He wrote his comments for the United States where financial education and credit card training for high school and university students are available. Some these programs are given at schools. However, in Turkey, such kinds of programs do not exist. Therefore, Turkish university students are believed to be in danger, because neither formal nor non-formal educational activities are provided for university students in order to make them conscious about wise use of credit and/or credit cards.

Credit card holders learn to use credit cards in informal ways. In a study done on financial literacy, it was found that most individuals learn about financial knowledge through informal channels such as parents which constitute 70% of learning (Chen & Volpe, 2002, p. 306). Informal learning is “A form of learning which takes place outside the curricula provided by formal and non-formal educational institutions and programs” (Schugurensky, 2000, p. 2). Informal learning experiences are not enough to gain sound knowledge of credit card usage. According to Robb (2007, p. 117), “college students typically have not yet developed credit card

brand loyalties, and they have yet to develop strong financial habits and attitudes”. This study will be beneficial both to educators in order to provide them necessary data to plan and implement training activities related to credit card knowledge and to the university students who have been trying to learn this knowledge by themselves.

Statement of the Purpose

The major purpose of this study is to analyze university students’ credit card knowledge level, learning ways in which they acquire this knowledge and their credit card payment practices. The study also aims to investigate whether demographic data of students namely gender, age, marital status, class standing, employment status, income level, sources of income, number of credit cards, experience in credit card usage, payment responsibility, monthly credit card usage, and monthly credit card spending; their learning ways; and their payment practices influences their credit card knowledge level.

Definitions of the Terms

Class standing: “Self-identified classification such as language preparation, freshmen, sophomore, junior, senior or graduate” (Robles, 2004, p. 5).

Credit card features: Special application of the banks on the credit cards.

Credit card knowledge test (CCKT): An instrument developed by the researcher in order to measure university students’ credit card literacy.

Credit card literacy: The knowledge of key credit card concepts, as well as one’s credit card features.

Experience in credit card usage: Refers to years of credit card ownership.

Formal Learning: “Formal learning occurs in an organised and structured environment (in an education or training institution or on-the-job) and is explicitly

designated as learning (in terms of objectives, time or resources)” (Cedefop, 2008, pp. 45-46).

Incidental learning: Refers to “learning experiences that occur when the learner did not have any previous intention of learning something out of that experience, but after the experience she or he becomes aware that some learning has taken place” (Schugurensky, 2000, p. 4).

Informal learning: “A form of learning which takes place outside the curricula provided by formal and non-formal educational institutions and programs” (Schugurensky, 2000, p. 2).

Key credit card concepts: Applications of annual fee, acceptance and use of credit cards, credit card limit issues, objections to monthly credit card statements, unlawful use of credit cards, security issues in the use of credit cards, applications of interest, payment issues and credit card contracts.

Learning experience: Refers to learning experiences of the participants about credit cards through formal, non-formal and informal learning types.

Monthly credit card spending: Refers to monthly amount which is spent by credit cards.

Monthly credit card usage: Refers to percentage of credit card usage among all spending in a month.

Non-formal learning: “Non-formal learning which is embedded in planned activities not explicitly designated as learning (in terms of learning objectives, learning time or learning support)” (Cedefop, 2008, pp. 45-46).

Personal credit card features: Special application of the banks on the credit cards such as different interest rates, bonus promotions, and annual card fees.

Payment responsibility: Refers to someone who pays monthly credit card bills.

Revolver: A credit card user who did not pay her/his credit card bills in three or more times in full during the last 12 months.

Self-directed learning: refers to “learning projects' undertaken by individuals (alone or as part of a group) without the assistance of an 'educator' (teacher, instructor, facilitator), but it can include the presence of a 'resource person' who does not regard herself or himself as an educator” (Schugurensky, 2000, p. 3).

Transactor: A credit card user who pays her/his credit card bills always in full or did not pay her/his credit card bills in full at most two times during the last 12 months.

Research Questions

There are four main research questions in this study:

- 1) What is the knowledge level of the university students regarding their CCKT score?
- 2-a) What is the overall CCKT score of the sample according to gender, age, marital status, class standing, employment status, income level, sources of income, number of credit cards, experience in credit card usage, payment responsibility, monthly credit card usage, and monthly credit card spending?
- 2-b) Is there significant difference between the counterparts of each independent variable?
- 3-a) How do credit card users acquire knowledge about credit cards?
- 3-b) Is there any difference in CCKT scores of different learning ways in which university students acquire knowledge about credit cards?
- 4-a) What kinds of credit card users are the respondents?
- 4-b) Is there any difference in CCKT scores between different kinds of credit card users?

Significance of the Study

One of the missions of adult education is to facilitate adults to adjust to their new life conditions and to increase the educational level of the society (Çankaya, 2005). In today's economy, there has been a serious trend toward a "cashless society" (Hendrickson, 1972). University students must know how to be wise consumers especially when they make use of credit cards. University students are expected to develop effective financial habits during these years. Financial well being of Turkish university students will affect economic and social future of our country. Researchers have given little emphasis, however, to credit card literacy in Turkey. Although credit cards have been used in Turkey since 1968 (Yılmaz, 2000), number of thesis and dissertations about credit cards was 62 by August 2010 (The council of Higher Education, 2010). Majority of these studies were done after the year 2000. These studies can be divided into 11 categories according to their subjects: (1) legal issues about credit cards and credit card usage, (2) credit cards applications, (3) credit card accounting, (4) economic effects of credit cards, (5) credit card contracts, (6) credit card usage, (7) Credit card possession, (8) implementations of credit card systems, (9) marketing of credit cards, (10) credit cards and consumer behaviors, (11) market of credit cards (See Appendix A for a detailed list of these studies). Credit card literacy or relevant subjects such as credit card knowledge have not been studied yet. In conclusion, a study to determine credit card literacy among university students is warranted.

CHAPTER II

REVIEW OF RELATED LITERATURE

In literature review, related and interconnected concepts regarding the study will be presented and explained. At the end of each part of this section, there will be links showing the relationship and importance of adult education, informal learning, credit cards, literacy and related concepts to the present study. Since this study is interdisciplinary, it contains a lot of components.

The main philosophy and, of course, the starting point in the related literature is that as the humanity has been evolved, the world and the things in it has become more and more complex. In each part of this section of the study, this philosophy is supported with examples.

Adult Education

To study the field of adult education is to recognize that it is many things to many people; more precisely, it is no one thing to everyone. (Batchelder & Byxbe; 2002, p. 1)

The above quotation reflects the multidimensionality of the field of adult education.

Diversity of the field has led to little consensus among the scholars and the researchers in defining adult education

Definitional differences occur due to the fact that the focus and content of adult education may vary between scholarly studies, social groups and countries.

Goldman (1995, p. 2) gives an example of such differences from British studies:

Oxford has been led since the 1870s by a succession of major figures in British intellectual life. The political project of adult education as seen from Oxford was to integrate the working class into the nation and educate it for the tasks of social and political leadership that would inevitably fall to it with the advent of democracy.

Lindeman (1989, p. 6) sees the future as fuzzy and adult education as preparation for the future and continues by stating "This new venture is called adult education--not because it is confined to adults but because adulthood, maturity defines its limits".

Houle (1996, p. 41) conceives adult education as beneficial to the whole society in his definition of adult education:

Adult education is the process by which men and women (alone, in groups, or in institutional settings) seek to improve themselves or their society by increasing their skill, knowledge, or sensitiveness; or it is any process by which individuals, groups, or institutions try to help men and women improve in these ways. The fundamental system of practice of the field, if it has one, must be discerned by probing beneath many different surface realities to identify a basic unity of process.

Merriam and Brockett (1997, p. 7) define adults from different perspectives in their definition "...we define adult education as activities intentionally designed for the purpose of bringing about learning among those whose age, social roles, or self-perception define them as adults". Sometimes these differences in definition and the terminology of adult education occur among the regions of a country. For example in the mid 1970s in Alberta, Canada adult education meant 'further education'; but in Quebec it was in three categories general education, professional education and socio-cultural or popular education (Hayden, 1982, p. 21). On the other hand, these differences are the indicators of the richness of the scope of the field. Based on the wide limits of the field, Jarvis (2002) studied and published a dictionary named "International dictionary of Adult and Continuing Education". Diversity of the field also brings a need for a more comprehensive and internationally recognized definition of adult education. For such a definition, internationally recognized and influential organization, United Nations Educational, Scientific and Cultural

Organization's (UNESCO) (1976, p. 2) definition is much appreciated among scholars:

Adult education denotes the entire body of organised educational processes, whatever the content, level and method, whether formal or otherwise, whether they prolong or replace initial education in schools, colleges and universities as well as in apprenticeship, whereby persons regarded as adult by the society to which they belong develop their abilities, enrich their knowledge improve their technical or professional qualifications or turn them in a new direction and bring about changes in their attitudes or behaviour in twofold perspective of full personal development and participation in balanced and independent social, economic and cultural development, adult education, however, must not be considered as an entity in itself, it is a subdivision, and an integral part of, a global scheme for life-long education and learning.

This definition includes many areas on which the field can be focused while leaving the age limits to the decision of countries. Having all these differences, adult education is simply the education related to adults. The present study falls within the boundaries of adult education as the age limits of the sample, the university students, and the subject matter itself occurs beyond formal education and important for the welfare of the people. Education, in general, and adult education, in specific, is simply a teaching and learning activity. The next section presents information about learning side of the adult education.

Adult Learning

“Learning is any change in behavior, information, knowledge, understanding, attitudes, skills, or capabilities which can be retained and cannot be ascribed to physical growth or to the development of inherited behavior patterns” (Organization for Economic Co-operation and Development [OECD], 2004, p. 18). This definition implies that learning is not limited to certain age groups. Like other developmentally defined groups, adults continue to learn.

Existing views and theories of psychology has long been concerned with the issue of adult learning. Humanistic, psychoanalytic and many other schools are involved due to the fact that adult education has gained a considerable importance in the last century. Certainly, the history of adult learning is not a new concept. People are engaging in adult learning from the beginning of the civilization. When the first societies set their rules for living the rulers expect people, especially adults, to learn these rules and concerned to teach them.

In 1926, with the establishment of American Association of Adult Education scientific studies in the field began to be clear and discussed. Known scientific studies on adult learning were seen in 1920s in United States. Thorndike (1931, p. 168) in his theory of learning stated “A second merit of the theory is its agreement with the development of learning during the life history of the individual human being”. In a previous study (Thorndike & Gates, 1929, p. 205) he concludes that:

People believe that they must compel their offspring to learn when young because of the fear that they will soon be unable to learn. Of first importance, then, is the fact, previously mentioned, that learning ability actually increases after fourteen to a zenith in the vicinity of twenty, a maximum which persists until twenty-five or later and thereafter declines very slowly.

Thorndike was the first in supporting the idea that adults can learn throughout their lives. This view on adult learning was supported by later studies (Gladis & Braun, 1958; Monge, 1971). Thorndike was, in fact, influenced by the views and studies of Dewey (1938) whose theory was on experiential learning, and he stated that learning results from our reflections on our experiences. Their views were influential on adult learning for almost thirty years

In 1968, Knowles introduced the concept of ‘andragogy’ (Knowles, 1968). The concept of unified theory of adult learning for which the label ‘andragogy’ had been coined to differentiate it from the theory of youth learning, pedagogy (Knowles,

1978, p. 18). Knowles (1980, pp. 44-45) proposed four characteristics of the adult learner as:

(1) Their self-concept moves from one of being a dependent personality toward being a self-directed human being; (2) They accumulate a growing reservoir of experience that becomes an increasingly rich resource for learning; (3) Their readiness to learn becomes increasingly to the developmental tasks of their social roles; and (4) Their time perspective changes from one of postponed application of knowledge to immediacy of application and, accordingly, their orientation toward learning shifts from one of subject-centeredness to one of performance-centeredness.

With Knowles, adult learning was legitimized, and with his pioneering views, a new era with new trends in adult education started. Duffy and Fendt (1984, p. 20) stated the following major trends which were influential in 1980s and 1990s as well as our present time: “(1) choosing and preparing for new careers, (2) changing roles in the workplace, (3) skills training within the community, (4) changing lifestyles”.

These and following trends broadened the scope of the field of adult learning. Studies on adult learning and believes (Akdere, Russ-Eft , & Eft, 2006; Ardichvili, 2006; Ashok & Thimmappa, 2006; Beck, 2006; Grover & Keenan, 2006; Johansen & Gopalakrishna, 2006; Nafukho, 2006), adult learning in social movements (Kilgore, 1999; Sandlin J.A. 2009; Seçkin, 2008; Walter, 2007) and studies on workplace (Altay, 2007; Billett, 2001; Malcolm, Hodgkinson, & Colley 2003) are the indicators of the wide limits of the field. All these trends are not the extensions but rather views on the adult learning theories.

After Knowles, the adult learning theories became controversial. His attempts to a unified theory of adult learning was somewhat challenged. Jarvis (1987, pp. 11-12) added a social dimension to adult learning and states that “... Hence, it is as important to examine the social dimension of adult learning as it is to understand the psychological mechanisms of the learning process”. Habermas (1971) asserted three

interrelated domains of learning in which the human interest generates knowledge: the technical, the practical and the emancipator.

Today, different views on adult learning involve generally non-formal and informal learning based on the existed adult learning theories. These views stem from the wide range of needs of the adults. However, the most studied subject of the adult learning is the informal learning part. The reason for this may be that there are many things to be studied beyond the limits of formal and non-formal education. And these things could not be taught in lessons. Moreover, this falls within the boundaries of adult learning.

Brookefield's (1986, p. 4) argument on adult learning falls within the scope and purpose of this study:

We should conceive adult learning to be a phenomenon and process that can take place in any setting. Indeed, it will often be the case that the most significant kind of adult learning that are identified as such by adult learners themselves occur in settings not formally designated as adult education ones. Such settings include families, community action groups, voluntary societies, support networks, workgroups, and interpersonal relationships.

What Brookefield's (1986) argument on adult learning is about informal learning.

According to Cedefop (2008, p. 13), "learning taking place outside formal education and training systems can be characterised as non-standardised and is frequently based on complex, individually specific learning experiences and pathways". Informal learning occurs outside the formal education. The next section is about the informal learning and its relation to present study.

Informal Learning

Researchers, both in the field of adult education and in the field of psychology, have not yet tapped into the use of credit cards as a part of informal learning in Turkey. Moreover, there has been no empirical study investigating learning and credit cards.

Marsick and Watkins (2001, p. 25) claimed that “informal and incidental learning is at the heart of adult education because of its learner-centered focus and the lessons that can be learned from life experience”. This view supports the importance of informal learning for adult education. Life experiences are numerous. Learning history of people began in the uterus and continues to the grave. Thus, adult education is named by many by a motto “from cradle to grave”. This is why, studies related to informal learning are various and diverse covering numerous topics, some examples of such studies are as follows: While Rapaport (1997) studied women’s informal learning experiences at work, Gerber (2001) investigated the impact of students’ experiences in informal learning environments on science learning; Harrison (1981) tried to identify informal learning among Yup’ik Eskimos; Alcalde (2005) explored the role of informal learning on the teaming process of engineering student teams; Altay (2007) identified and analyzed informal learning among workers in the workplace; Seçkin (2008) explored adults’ reasons for participating in the Kaz Mountains Environmental Social Movement, learning experiences of them in the movement and sources of these experiences; Choi (2009) investigated the influences of formal learning, personal characteristics, and work environment characteristics on informal learning among middle managers in the Korean banking sector; Digby (2010) examined the impact of non-formal and informal learning on adult environmental knowledge, attitudes, and behaviors; Ash (2003) studied on application of theories of learning in informal context (See appendix B for detailed listing of these studies with sampling and methods)

Many definitions of the informal learning involve references to formal and non-formal learning, mostly as opposite of formal learning. (Coombs, Prosser & Ahmed, 1973; Marsick & Volpe, 1999; Billett 1995). Similarly, UNESCO Institute

for Education (UIE) (1997, p. 1) while commenting on adult learning takes three types of learning together : “Adult learning encompasses both formal and continuing education, non-formal learning and the spectrum of informal and incidental learning available in a multicultural learning society, where theory- and practice-based approaches are recognized”. Cedefop (2008, pp. 45-46) provides definitions of formal, non-formal and informal learning with comments on them as follows:

Formal learning occurs in an organised and structured environment (in an education or training institution or on-the-job) and is explicitly designated as learning (in terms of objectives, time or resources). Formal learning is intentional from the learner’s point of view. It typically leads to validation and certification. Non-formal learning which is embedded in planned activities not explicitly designated as learning (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner’s point of view. Non-formal learning outcomes may be validated and lead to certification. Non-formal learning is sometimes described as semi-structured learning. Informal learning resulting from daily activities related to work, family or leisure. It is not organised or structured in terms of objectives, time or learning support. Informal learning is in most cases unintentional from the learner’s perspective. Informal learning outcomes do not usually lead to certification but may be validated and certified in the framework of recognition of prior learning schemes. Informal learning is also referred to as experiential or incidental/random learning.

The reason for taking formal and non-formal learning as a reference in the case of informal learning is that in the absence of the first two only one alternative is left and this view puts the informal learning in a residual category. For this reason, subsets of informal learning are various such as incidental learning, self-directed learning and learning from experience. However, many learning opportunities exist other than the formal and non-formal learning; they may not be discovered yet.

Similarly, for the purposes of our study, informal learning in gaining credit card knowledge was referenced to formal and non-formal learning. The initial

arguments and the rationale behind the learning side of this study were to find the answer of the following questions:

1. People are using credit cards, how they learn to use credit cards?
2. Is there any formal learning activity which provides knowledge of credit card use?
3. Is there any non-formal learning activity which provides knowledge of credit card use?
4. If there is no formal and non-formal learning opportunity for credit card knowledge, do people engage in informal learning activities to grasp this knowledge?
5. If people, for the purpose of having credit card knowledge, engaging in informal learning activities, from which sources they acquire this knowledge.

An extensive search was performed on the course titles and course contents within the formal education institutions such as primary, secondary and higher education institutions about knowledge of credit card usage (Eurydice, 2009). In this search, for the primary and secondary education institutions the course contents were reached through the official web site of the Ministry of National Education. Similar analysis was done for the information about knowledge of credit card usage was attained from the universities' official web sites. Attempts to reach if there has been any formal learning opportunity about knowledge of credit card usage yielded no results.

Another extensive search, within time limitations, for the same purpose was performed for non-formal education settings. Therefore the information about course titles and course contents of public (Public Education Center) and municipal non-formal education institutions were the following two: Ministry of National Education General Directorate of Apprenticeship and non-formal training and İstanbul

Metropolitan Municipality Art and Vocational Training Courses (İSMEK)

(<http://ismek.ibb.gov.tr>). Similarly the results showed that there were no

opportunities for non-formal learning about the usage of credit cards. However, non-

formal learning is not restricted to such courses. According to the European

Commission (2000, p. 8)

Non-formal learning takes place alongside the mainstream systems of education and training and does not typically lead to formalised certificates. Non-formal learning may be provided in the workplace and through the activities of civil society organisations and groups (such as in youth organisations, trades unions and political parties). It can also be provided through organisations or services that have been set up to complement formal systems (such as arts, music and sports classes or private tutoring to prepare for examinations).

Based on this definition, and with the purpose of this study, possible non-formal learning opportunities of some banks, credit card companies and governmental organizations such as Citibank A.Ş., The Banks Associations of Turkey and MasterCard were searched (See Appendix C for the complete list of these organizations). The result of this analysis was the same as previous ones. Based on these searches and references to formal and non-formal learning it was supposed that credit card knowledge is acquired by informal learning. Therefore, this study was reorganized according to the credit card knowledge of university students in relation to informal learning practices.

Informal learning constitutes an important place in financial matters. In a financial literacy study conducted in the U.K. (Financial Services Authority [FSA], 2006) when people were asked which sources they used to keep informed about financial matters, through newspapers (41%) and television or radio programs (39%); 19% kept up to date by reading the financial pages of newspapers, and only 7% did so by tuning in to specialist programs on television or radio.

Schugurensky (2000, p. 2), defines informal learning as “learning which takes place outside the curricula provided by formal and non-formal educational institutions and programs...in the processes of informal learning there are not educational institutions, institutionally authorized instructors or prescribed curricula”. Schugurensky (2000, p. 17), proposes a taxonomy of learning in which three forms of informal learning namely, “self-directed, incidental and socialization” is defined. He classified these three types of learning on the bases of two dimensions: Intentionality and awareness. According to the taxonomy, self-directed learning form is intentional and the degree of awareness is high at the time of the learning experience. However, incidental learning form is unintentional and the degree of awareness is high like self-directed learning. In the contrary of self-directed learning form, socialization form is both unintentional and degree of awareness is low at the time of the experience.

He views the intentionality dimension as important just like Eraut (2000). Awareness dimension of the taxonomy is similar to what Watkins and Marsick (1992, p. 28) proposed “Informal learning can be planned or unplanned, but it usually involves some degree of conscious awareness that learning is taking place”. Schugurensky’s forms of informal learning were adapted in this study, except the socialization form because that measuring socialization is both complex and beyond the boundaries of this study it is a subject of a longitudinal study.

As Schugurensky (2000) suggests, informal learning can be in different forms. Credit card users expected to learn the knowledge of credit cards in his self-directed learning and incidental learning categories. The next part of this section will explore the concept of self-directed learning.

Self-directed Learning

Upon his empirical studies in the area of self-directed learning, Tough (1983) proposed that a learning project or a major learning effort can be achieved in minimum seven hours focusing with highly deliberative effort in order to gain and retain certain definite knowledge or skill. He also found that adults spend annually 100 hours on a separate learning project. For example, as seen from above in order to learn about the interest¹ related issues of credit cards, a student must spend minimum seven hours. This period may seem long for interest but as we consider a definite knowledge, it is even short. First, the student should investigate the concept of interest. Second, s/he should learn about the legal dimension of interest. Third, the student should be able to perform calculations about the interest. Fourth, s/he should explore interest application on credit cards with legal dimensions. Fifth, the student has to learn about her or his credit card interest rates and terms as stated in the credit card contract. Finally, the student may reach a definite knowledge of credit cards' interest issues. This example is about only one concept of credit cards. As other concepts are considered, a learning project about credit cards may last several hours.

Knowles (1984, p. 12) defines adult learner as 'self directed learners'.

Merriam and Caffarella (1999, p. 293) define self-directed learning as "a process of learning, in which people take the primary initiative for planning, carrying out, and evaluating their own learning experiences". The Common point of both definitions' is that responsibility of the learning experience is on the learner's side. This concludes that self-directed learning is a learner centered learning.

¹ According to Dictionary of Modern Economics (1948, p. 175) interest can be defined as money paid by a borrower to a lender for the use of loan funds spent for capital equipment (including land) or for immediate consumption goods.

Brockett and Hiemstra (1991, p. 29) define self-directed learning with attributions to individual differences “...both external factors that facilitate learning taking primary responsibility for planning, implementing, and evaluating learning and internal factors or personal characteristics that predispose one toward accepting responsibility for one’s thoughts and actions as a learner”. Besides being learner centered, individual differences in taking the responsibility of the learning as well as external factors are important. In the case of learning about the credit cards, external factors are the availability of the various resources about the credit cards. The learner needs intrinsic motivation or intentionality and awareness as Schugurensky (2000) claimed.

Like Tough (1983), in his definitions of self-directed learning Schugurensky (2000) refers to learning projects. In addition to the definitions of Knowles (1984), Merriam and Caffarella (1999) and Brockett and Hiemstra (1991), he added the dimensions of consciousness besides intentionality to his definition:

Self-directed learning refers to 'learning projects' undertaken by individuals (alone or as part of a group) without the assistance of an 'educator' (teacher, instructor, facilitator), but it can include the presence of a 'resource person' who does not regard herself or himself as an educator. It is both intentional and conscious. It is intentional because the individual has the purpose of learning something even before the learning process begins, and it is conscious, in the sense that the individual is aware that she or he has learned something. (Schugurensky, 2000, p. 3).

Schugurensky (2000, pp. 3-4) supports his definition of self-directed learning with five examples:

- 1) A toddler decides that she wants to start putting her socks on by herself, and after many attempts finally succeeds.
- 2) A group of high school students enrolled in a conservative school and living under a military regime organize themselves in a clandestine study group to learn about political economy, and meet regularly to discuss readings.
- 3) A person wants to learn more about a historical event, and

- to do so reads books and archival documents, watches movies and videos, goes to museums and talks to people who participated or witnessed those events.
- 4) A group of friends wants to make a special dish for dinner, and then looks for a recipe in a cookbook or on the internet, and calls the grandmother of one of them to clarify a doubt.
 - 5) A group of neighbors wants to get their street paved, and then set out to learn collectively the different steps that they must take to influence municipal decision- making, reading documents, talking with councillors, meeting with leaders of other neighbourhoods, etc.

Credit card users who are expected to gain credit card knowledge in an informal way are also expected to organize their learning projects whether in the presence of a resource person or not. His definition of self-directed learning falls within the same line of the purpose of this study. We can adapt the third example for our own purposes as such: A person who wants to learn more about credit card usage may do so by reading books, monthly credit cards statement details, law and regulations, doing internet search, watching related news programs, asking people who are using credit cards around and going to her or his bank and talking to officials. As mentioned earlier credit card users may not gain their knowledge only by self-directed learning, they may also learn incidentally. The next part of this section will explore the concept of incidental learning.

Incidental Learning

“Incidental learning is a subset of informal learning” (Marsick &Watkins, 1992, p. 28). Similarly, Apps (1982) defines incidental learning as learning that is not planned. According to Rogers (1997, p. 116) in incidental learning the learner does not intend to learn and the source of the learning does not intend to promote learning.

A common term in above definitions is the degree of intention. In order for the incidental learning to occur, there should be no intention from the learner's side, it should be by accident. As Silva (2007, p. 17) states:

The literature on incidental learning has been mainly divided into the five categories: "(1) incidental learning as a means of acquiring information, (2) computer-related studies of incidental learning, (3) incidental learning in formal educational settings, (4) Marsick and Watkin's work on incidental learning in the workplace and (5) incidental Learning in the Workplace".

Schugurensky's (2000) definition of incidental learning and clarifying examples were facilitated in framing incidental learning for the purposes of this study.

According to his definition incidental learning refers to

learning experiences that occur when the learner did not have any previous intention of learning something out of that experience, but after the experience she or he becomes aware that some learning has taken place. Thus, it is unintentional but conscious (Schugurensky, 2000, p. 4).

In this definition the learning is spontaneous and unintentional, the learner is conscious. Unlike Rogers (1997), Schugurensky (2000) did not mention the intentionality dimension of the learning source, for him the source of the learning could be intentional. He exemplifies his definition to make possible arguments clear:

1. A toddler touches a hot iron and immediately learns that it is not wise to do it again.
2. A teacher coming from a traditional teacher training program starts working in a progressive school and after enough exposure to this environment begins to challenge some of the initial assumptions about teaching, learning and the curriculum.
3. A person is watching the news and there is a documentary about the unfair treatment that an ethnic group received during a particular period, a historical fact that the viewer was unaware of before.
4. A group of friends are at a party and a child is choking. One of the parents applies first aids and the child stops choking. Members of the group ask some questions about the procedure and the physiological reasons behind it. They become immediately aware that they learned something new that they could apply if required.

5. A group of neighbours participate in local democracy, and through this process they learn about municipal politics; although they didn't join the process with a learning objective in mind, they realize that they have gained new skills and knowledge that allow them to participate more effectively in democratic deliberation and decision-making (p. 4).

In the present study, credit card users are also hypothesized to have learned credit card knowledge incidentally, namely at a friend's meeting, internet surfing or even watching the news. For this reason, Schugurensky's (2000) definition of incidental learning was adapted for the study. The next part of this section is about another informal learning form, learning from experience.

Learning From Experience

Studies of Kolb (1984) underpin what we know about the experiential learning today. He defines learning as a “process whereby knowledge is created through the transformation of experience” (Kolb, 1984, p. 38). Kolb and Fry (1975, p. 31) propose that “humans develop through the process of experience and adapt these experiential representations from four different ways” (See Figure 1).

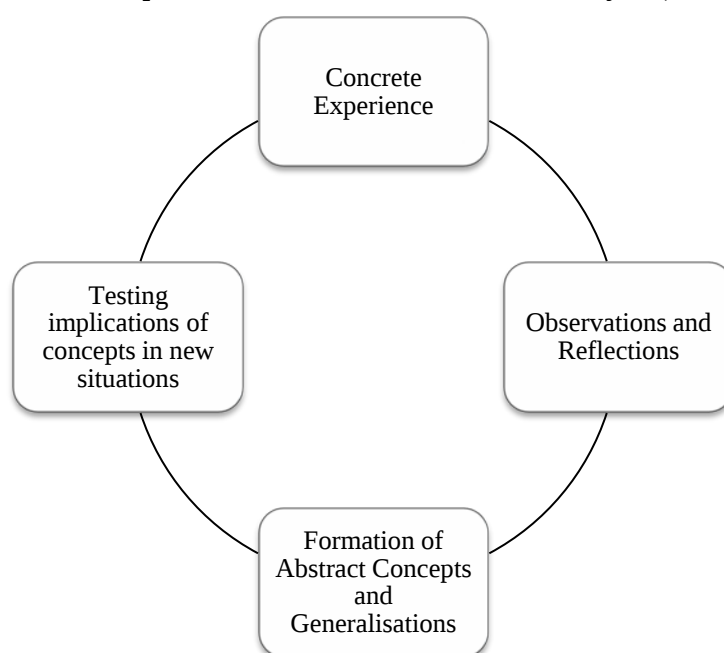


Fig. 1 Kolb's experiential learning (Kolb & Fry, 1975, p. 33)

Experience constituted the heart of Kolb's studies. In this model abstract concepts should be realized in concrete experiences, and reflections on experiences leads to learning. For example, a student knows the concept of credit card fees but unless s/he has an experience with credit card fees, the knowledge cannot become definite. Lindeman (1989, pp. 6-7), stresses the vital place of experience in adult learning: "Psychology is teaching us, however, that we learn what we do, and that therefore all genuine education will keep doing and thinking together...Experience is the adult learners' 'living textbook'".

He talks about the learning from experience is natural learning. As adults experience and think about what s/he has experienced, s/he expected to be motivated to learn. There is a self directed dimension also in this definition. If one does not think about the experiences, the experiences remain only as memories. According to this definition, the learner has to be active. For example, if one pays more interest and fees due to the late payment of credit card bills, and if s/he does not think over this experience, the learning will not occur. For the purpose of this study, Lindeman's (1989) view of learning from experience is adapted. The next part of this section is about learning from others.

Learning from others

This kind of informal learning occurs in both self-directed learning and incidental learning. For the purposes of this study effects of the other people on a learner is taken as important. These effects are considered to be of two types, dialogue and observation.

Knowles (1978, p. 14) asserts that "dialogue is an important procedure for refining and developing knowledge among adult learners". Vella, (2002, p. 3). comments that "adult learning is best achieved in dialogue". In a collectivist society,

like ours, the place of a dialogue cannot be underestimated. In a study by Altay (2007) five engineers out of 15 reported that it was easier to ask others rather than exploring other resources on their own. Mostly for cultural reasons, learning from others through dialogue constitutes an important place for the purposes of this study.

. People are also learning from the experiences of other people. This can be achieved through dialogue or observation. The experiences of other people, especially bad experiences, may be influential. This is exactly what Bandura (1977) claimed in his theory of social learning. Bandura's Social Learning Theory assumes that people learn from one another, by observation, imitation, and modeling.

Both dialogue and observation can also be viewed from the point of situated learning. Lave and Wenger (1991, p. 53) stated that "learning involves the whole person; it implies not only a relation to specific activities, but a relation to social communities". This relation to communities, for the purposes of our study, can be achieved by dialogue and observation. Moore (2004, p. 147) found that "84.5% of the college students learned about financial matters from their parents". In a similar and more recent study it was found that students who reported they learned either some or a lot about managing their money from parents, had higher financial knowledge, attitude, and behavior scores than students who reported learning none or not much about managing their money from their parents (Jorgensen, 2007, p. 43). People are typically immersed in social relations that exert powerful influences on their decisions.

In another example of the effects of the others, Kitapçı (2010), in his study of university students' credit card usage, found that students, regardless of their sex, are influenced by their peers and families in credit card choice. In the present study, it is expected that students learn from others through dialogue and observations.

Credit Cards

In the literature, definitions of credit cards vary. Variations in definitions do not stem from the different properties of credit cards, but rather reflect different perspectives of the ones who define it.

Scholarly definitions of credit card

According to The Columbia Encyclopedia (2009, p. 12356) “a credit card is a device used to obtain consumer credit at the time of purchasing an article or service”. For Freeman (1993, p. 8) “credit card is a method of borrowing cash to pay for goods or services up to a certain credit limit. It is not necessary to pay back the debt each month. Interest is charged on outstanding debt”.

Institutional Definitions of credit card

According to Interbank Card Center, “credit card means that you have a credit at your bank. Even if you do not have any money in your bank you can do shopping for one month. Your bank pays your shopping bills at your behalf. You receive statement each month from your bank” (ICC, 2010)

For Visa, “Credit card is a card account which provides opportunity to card holders to take on debt up to a certain limit” (Visa Europe, 2010a).

Legal definition of credit card

Bank Cards and Credit Cards Law (No. 5464, item ‘e’) defines credit card as an issued card or a non-physical card number which provides an opportunity to purchase goods or services without using cash money (<http://www.tbmm.gov.tr>).

What is meant by these definitions is that credit card means money, borrowing, debt, interest and paying back. All these terms, and of course the term credit card, constitutes a concept of credit. In a simpler term credit card is credit. Before going into a history of credit cards the related concepts debt, credit, money and interest which are the key concepts of credit cards will be investigated.

Debt

History of economics begins with the concept of debt. In the gift economies, people were depended on each other and share all the things they have with the other members of the community. These communities were small in number, usually between 15 – 50 people, and there was neither barter nor trade among the members of the community only limited trade was allowed with other communities (Heinberg, 2010).

When people begin to live in bigger groups, in other words as the population of the community increases, they begin to left the gift economy. This behavior led to the development of borrowing. Borrowing results in economic debt but debt was not a new concept in those times. Before the behavior of borrowing debt had emerged because debt is not a concept that belongs to economy. Debt can also be viewed from many different perspectives. Anthropologist Graeber (2009) starts the concept of debt with slavery while providing links to anthropology and psychology:

Let me start with the institution of slavery, whose role, I think, is key. In most times and places, slavery is seen as a consequence of war. Sometimes most slaves actually are war captives, sometimes they are not, but almost invariably, war is seen as the foundation and justification of the institution. If you surrender in war, what you surrender is your life; your conqueror has the right to kill you, and often will. If he chooses not to, you literally owe your life to him; a debt conceived as absolute, infinite, irredeemable. He can in principle extract anything he wants, and all debts—obligations — you may owe to others (your friends, family,

former political allegiances), or that others owe you, are seen as being absolutely negated. Your debt to your owner is all that now exists.

With the development of the concepts of borrowing and debt economic interpersonal relationships which will lead to the development of economic systems, started. The concepts of credit, interest and money will develop as result of borrowing and debt.

Credit

Credit card is the form of revolving credit, which is subset of personal credit, which is a type of credit. Types of credits and place of credit cards within these types are defined in this study as such (see Figure 2)

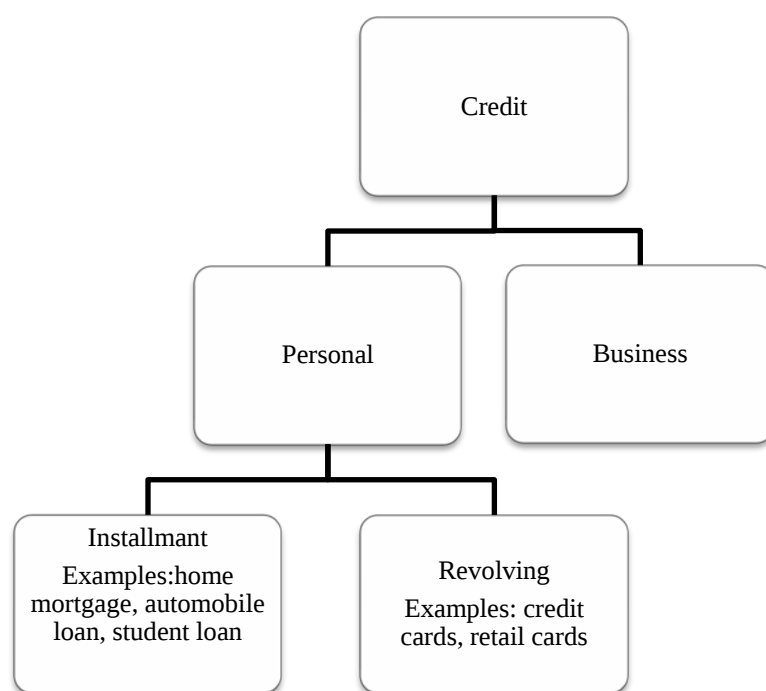


Fig. 2 Types of credit

According to The Columbia Encyclopedia (2009) credit is granting of goods, services, or money in return for a promise of future payment (p. 12356). Dictionary of Modern Economics (1948, p. 77) defines credit in a broad economic sense as the means whereby the resources of one person are made available to others, usually for

the use in a business enterprise. For the Visa Company, Credit is “a sum of money that is made available for you to borrow” (Visa Europe, 2010b).

All these definitions imply that credit basically means borrowing money to pay back at a later date. In sum, credit, borrowing and debt are interrelated concepts.

All these concepts find their origins in history:

The concept of credit has existed and been use almost as long as there has been civilization. It predates, by a considerable length of time, the use of money, and written references to it appear as far back as in the Code of Hammurabi, established around 1750 B.C. what is very different about credit in twentieth century is the way and extend to which it is used.(Mandell, 1990, p. xi)

When we look at the Codes of Hammurabi which said to be first known written laws, we can see the applications of credit in code of laws:

If there be interest (upon a loan) against a man, and a storm inundate his field, or has (otherwise) destroyed the produce, or by want of water there is no wheat in the field, that year he shall not return any wheat to the creditor. He shall damp his tablet (? to alter it), and shall not pay interest for that year. If a man has borrowed money from an agent, and has given to the agent a field laboured for wheat or sesame, (and) has said to him: "Plant the field, and gather and take the wheat or the sesame which will be produced;" if the planter has caused wheat or sesame to be in the field, at harvest-time the owner of the field may take the wheat or sesame which has been produced in the field, and shall give to the agent wheat for his silver and his interest which he received from the agent, and (for) the cost of the cultivation (Pinches, 1908, pp. 495-496)

Likewise today's laws legislated by the states and The Code of Hammurabi regulated the terms of ownership of land, the employment of agricultural labor, civil obligations, land rental, credit and much more (Homer & Sylla, 1996, p. 26). But today, economic systems and the laws regulating the relations between the creditor and the debtor are not as humanistic as in ancient times. If a person gets credit on a fixed installment payment plan and loses his or her business, or job, it is not a problem for the creditor or the state.

First large scale applications of credit, beyond the individual level, were seen in trade. For example, credit facilitated trade in Ancient Greece. (Homer & Sylla, 1996, p. 34). Moreover, credit system of a community began to influence the other communities in relationship. Homer and Sylla (1996, p. 62) commented on this situation:

There was a good measure of continuity in the development of credit forms over this entire ancient era, even though the center of civilization shifted at least twice and the customs and traditions of peoples were very different. It is likely that the elaborate but small-scale banking methods of Babylonia were also imitated by the Greeks..... together with this continuity in credit forms, other trends and events influenced the entire Mediterranean world with some uniformity.

That kind of influence can also be seen today. Credit applications of a bank influence the other banks and credit applications of a country influences the other. The actual development of the credit was due to the trade fairs of medieval times. The trade fairs “led in their turn to more sophisticated financial arrangements that made it less necessary for merchants to travel” (Chown, 1996, p. 129). These financial arrangements were the development of banking, new credit types and paper money. Credit, in the form we know today, was born as result of the commercial activities. Based on the commercial credit, consumer credit was later extended to the individual use. For example, today’s famous credit type mortgage emerged in medieval times:

Pirenne (1936:137) refers to the creation of house rents as the most general form of medieval credit. He points out the distinction between a ‘live’ (vif)gage where rents contribute to the payment of principal and a ‘dead’ (mort)gage where it did not. (as cited in Chown, 1996, p. 122)

Consumer credit, as we have today, is an invention of early twentieth century. After the industrial revolution, during the making of the modern world, credit played an important role. Farmers, merchants and producers were using credits for their businesses or personal needs. When we look at the late nineteenth century, we see a

huge amount of credit in circulation. Robert Porter's census staff estimated the minimum private debt of the people of the United States in 1890 to be \$11 trillion (as cited in Calder, 1999, p. 40). The 1890 census figure would apportion to each household in the United States about \$880 of debt (Calder, 1999, p. 40). For the low waged and middle class families the pawnbrokers (usurer) were available. In 1911, when pawnbroking neared the height of its business, 2,000 pawnshops did business in 300 cities, in the hands of 400 owners in United States (Calder, 1999, p. 46). After 1920s, with fordist period and with the increase in the production rates, the concept of credit began to change according to the needs of the people. Installment credit was, and still, on the stage.

Credit, actually, has not changed. From the beginning form until today it has been the product of the creditors. What has changed at the side of the credit is that just the names of the issues, the purpose of the credit remained the same: making profit.

Money

Upon leaving the gift economy, besides borrowing, people began to exchange their goods when the economic barter took place. Actually, behavior of barter existed in gift economies was “more social rather than economic” (Davies, 2002, p. 8). But this kind of barter exchange probably reached its most aggressive heights” in the ritualized barter ceremonies among North American Indians, whence it is generally known from the Chinook name for the practice, as 'potlatch'”. (Davies, 2002, p. 11).

With the system of economic barter, people began to exchange their goods with the ones they wanted to own. The exact value of one thing was again the same thing and exchanging the same goods had no meaning. Barter should have done for

the things one did not possess. Therefore, the problem of value of the goods emerged. The standard of value was different in societies. Davies (2002, p. 28), stated “At some time or place, almost anything has acted as money”. In ancient Sumer in earliest times, barley was the medium of exchange for most transactions; in ancient Aegean Sea cattle were the first standard of value, and metals later became mediums of exchange; and in prehistoric Italy cattle and perhaps other domestic animals constituted the earliest known form of money (Homer & Sylla, 1996, pp. 25, 32, 44).

The most obvious and important drawback of barter is concerned with the absence of a generalized or common standard of values, i.e. the price systems available with money. Problems of accounting multiply enormously as wealth and the varieties of exchangeable goods increase, so that whereas the accounting problems in simple societies may be surmountable, the foundations of modern society would crumble without money (Davies, 2002, p. 15).

The need of a standard medium of exchange increased and resulted in the invention of money. However, the system of barter did not disappear completely. Today, in our families, communities, and companies we see many examples of bartering especially during the times of economic crisis, which is very common in our time.

Coins made up of precious metals such as gold or silver were the first forms of money. Burns (1927, p. 321) wrote on the first emergence of money as “it is quite possible that the Lydians introduced bimetallism”. However, Homer and Sylla (1996, p. 33) gave some credit to “Ionians or earlier people”. Gold and silver were, and still, valuable mines and cost a lot to make coins. The other forms of coins made of different metals such as copper and bronze were in use. Homer and Sylla (1996, p. 44) gives an example of changing coinages from Rome: “Almost in 443 B.C. raw copper and bronze remained a monetary standard to the end of the republic. By the second century B.C. Rome coined silver. Republican Rome coined no gold”.

Today's paper form of money is claimed to be the first one issued by The Bank of Sweden in 1661. However, Marco Polo, in his visit to china in 1271 reported that he witnessed the use of paper money. (Chown, 1996, p. 257). All these inventions, like the credit, about money were born from the needs of merchants and creditors. Again for such a need, Bank of Amsterdam, arguably the first bank, was founded in 1609 (Chown, 1996, p. 130). In other cities in Europe and in the U.S.A. banks respectively opened and private banking began to be in common. Banks became an integral part of the daily activities and in almost every activity human being involved. For example, wars began to be financed by the banks. The American War of Independence was the first war, at least in the West, to be financed with depreciating paper money (Chown, 1996, p. 215).

Today, functions of money are numerous, Davies (2002, pp. 27-28), summarizes functions of the money as “(1) unit of account, (2) common measure of value, (3) medium of exchange, (4) means of payment, (5) standard for deferred payments, (6) store of value, (7) liquid asset, (8) framework of the market allocative system, (9) a causative factor in the economy, (10) controller of the economy”.

Interest

Interest can be defined as money paid by a borrower to a lender for the use of loan funds spent for capital equipment (including land) or for immediate consumption goods. (Dictionary of Modern Economics, 1948, p. 175). Beside the ethical issues in the application of interest, we see early forms in ancient times almost in every society.

At the time of the Persian Empire, loans without interest of consumable commodities were recognized and they could, but needed not, provide a penalty for nonpayment. Such penalty rates are common throughout history and must be sharply

distinguished from contract rates of interest. A maximum interest rate was fixed on all loans. Very often, however, loans were negotiated with the maximum rates of interest. (Homer & Sylla 1996, p. 27). For example Mesopotamian interest rates between 3000 and 400 B.C. were between 20% and 50% on grain and between 10% and 40% on silver (See Appendix D for the complete list of interest rates in Mesopotamia in specified period)

In Greece in fifth century B.C. usurious interest rate was 36% and in fourth century B.C. it was 48% by usurers. Most of Roman interest-rate history consists of legal maxima ...The Romans were a nation of farmers and soldiers. They left manufacture, commerce and banking largely to foreigners. This attitude probably explains why so few Roman rates of interest were recorded for posterity. Most of Roman interest-rate history consists of legal maxima. (Homer & Sylla, 1996, pp. 42-44)

The concept of interest is directly related to the concept of credit which was explained in the previous section. Therefore the rise of the interest is depended on credit. As referenced in previous section, credit was born as a result of the commercial activities of the merchants, so did the interest. But during the most vivid times of the trade fairs when the credit is very common, there occurred a problem which hinders the merchants to use credits in return for interest, the problem of usury.

Usury was unlawful, sinful and un-Christian to make a reward for lending money to others. The merchants were looking for possible loopholes in order to escape the pressure of the church and the social pressure of the theological medieval thought. Calder (1999, p. 121) explains the most frequent loophole as follows:

The 'Deed of Partnership' was frequently used. Every act of financial participation entailed a risk, for which compensation was provided by the eventual profit; and, since the partner retained the ownership of the sum invested there was no question whatever of a 'mutuum'. The Contractus Triniuscu, which appeared in the late fifteenth century, raised more difficulties: it consisted of three contracts simultaneously entered into between the same parties:

(1) A sleeping partnership. The investor brings his money, the merchant his work and they divide the profit. (2) An insurance against all risks whereby the investor is given a guarantee against loss in exchange for a percentage of the eventual profit. (3) The sale by the investor, for fixed sum to be paid to him each year, of his chances of profit above a certain level.

These and similar regulations carried only one purpose to give loans for interest. Of course, the concept of usury, and possible loopholes, is not limited to Christianity and medieval times. Today, for example, when look at the Islamic banks, what we see is that there is a deposit account in which account holders shares the profit of the bank, not the interest. With the development of banking, interest has been legitimized and concept of usury forgotten.

Interest is a key, may be the most important, concept of credit cards today. The interest is the most obvious and important source of banks' revenues, especially from the credit card owners. Revolvers who regularly carry credit cards balances, are exposed to continuous interests and constitutes the most profitable credit card customers. Revolvers and their offsets transactors will be discussed in kinds of credit card users sections of the literature review.

History of credit cards

As mentioned in the previous parts, developments in the economic relations from the very beginning of the humanity until the post-fordist times was about the debt, credit, money and interest respectively. Especially developments in early twentieth century gave rise to the use of personal credits. All the signals showed that the time for a new credit method had already come. Mandell (1990, p. xii) wrote about those times as "After the First World War, the widespread sale of automobiles, washing machines, vacuum cleaners, and other big-ticket household durables increased the need for credit and consequent use of credit cards"

But long before the invention of the credit cards, similar way of payment were developed at the beginning of the twentieth century. Hotels, restaurants, retail shops and many other enterprises, starting from 1914, issued their own cards in order to attract people to buy their products in order to bind them as their local customers while providing flexibility in shopping and drive them to purchase in bigger quantities (Calder, 1999; Garcia, 1980; Hendrickson, 1972; Mandell, 1990). By the mid-1930s, “two-thirds of Americans using credit cards did so because they did not have cash to pay for their purchases, a vast change from the earlier days” (Mandell, 1990, p. 18).

The application of these kinds of cards were different than today’s third party credit cards. The system was two sided. Right after the World War II, Diner’s club introduced the first third party credit card.

The era of modern, third-party universal card began with the formation of Diners Club in 1949. In the spring of that year, Alfred Bloomingdale, Frank McNamara, and Ralph Synder conceived a plan for new type of credit card....They conceived of credit as a product to be sold, an end in itself rather than simply a means to an end, and the primary vehicle for extending credit was the credit card. There was no precedent for a company such as the one they envisaged. (Mandell, 1990, p. xiii)

They thought that credit cards should have used in more than one company. Their first credit cards were to be used in restaurants. The cards were especially designed for the salesmen working in New York to charge their meals. This is why cards is called Diners Club. Diners Club’s first card was labeled as ‘travel and entertainment card’. The card was launched in 1950 and in one year reached to 42,000 people and by 1953, only three years later, with successful business operations Diners Club was accepted and used in the U.K., Canada, Cuba and Mexico.

(www.dinersclubinternational.com). The history of credit card for other countries began. Meanwhile, the banks in the U.S.A. was in the business of credit cards.

In 1958, American Express, the traveler's check giant, and Carte Blanche, the private credit card operation of Hilton Hotel corporation, both entered the universal credit card field. The same year country's largest and second largest banks, Bank of America and Chase Manhattan Bank, also launched credit card operations. (Mandell, 1990, p. xiv)

Among these companies Bank of America has an important place. They launched a credit card labeled 'BankAmericard'. In 1966, bank of America took a major step toward solving this problem by deciding to license its new BankAmericard across the United States (Mandell, 1990). Ten years later from this action, Bank of America changed the name of card from 'BankAmericard' to 'Visa' (www.visa.com).

American express also launched its card in 1958.

While Bank of America was in action in 1966, its competitor, today known as 'MasterCard' was born as the Interbank Card Association. Three years later Interbank Card Association issued 'Master Charge' and in 1979 took the name 'MasterCard'. By 1979 with these two cards, 'Visa' and 'MasterCard', network have almost reached 11,000 banks (Ritzer, 1995). From 1969 to 1981, the number of participating MasterCard banks increased from 4,461 to 12,504 while the number of participating Visa banks increased from 3,751 to 12,518. By the late 1980s Visa has increased its lead over rival to more than a third (Mandell, 1990, p. xvi). Competition among the credit card companies did not remain domestic.

Credit cards existed from 1950 by the British Hotels and Restaurants Association's cards. Mandell (1990, pp. xvi-xvii) explains American credit card companies' overseas expansion:

The bank cards had a slower start expanding overseas. In 1972 BankAmericard claimed to operate in seventy-one countries

worldwide, but except for Great Britain, where it had purchased the Barclay's Card ...Many European banks balked at signing an agreement with BankAmericard because of their fear of aligning themselves with Bank of America, the world largest bank...Visa and MasterCard were less successful in Japan. The JCB bank, an American Express affiliate, led the market.

1980s was a growth period for credit card companies, in 1986 more than 55% of all American families possessed a bank card. (Mandell, 1990, p. 59). According to Ritzer (1995, p. 42), "the credit card companies have caught up in a hard law of capitalism: Either they must continually expand, or they will decline". Following years the competition between the credit card companies was very hard. Credit cards, as a financial product, marketed almost everywhere.

We know that for the first time in Turkey, it was Setur A.Ş. which had an agreement with Diners Club in 1968 (Yılmaz, 2000). But until 1980s use of credit cards in Turkey was very limited. Until 1990's credit card statistics are not clear due to a unifying institution. In 1990 Interbank Card Center was established. Credit card usage began to increase fast after 1990s.

In my personal observations, I have witnessed like many others, banks put their marketing booths on the pavements and trying to sell their products, credit cards. I personally owned my first credit card, when was a university student, while I sitting at Boğaziçi University's cafeteria located on the north campus in 1997. The competition between the credit card issuers spread throughout university campuses. For the purpose of our research, this marketing method of the credit card issuers will be explored. The next part of this section of the literature review is about the credit cards and university students.

Credit Cards and University Students.

According to Mandell (1990, p. 18) “credit cards were initially promoted only to affluent customers and were used as status symbols”. Early 1990s there was a striking change in the lending policies of the credit card issuers that is now, everyone would have a credit card. Mae (2005), Moore (2004) and Tan (1993) state that credit card possession of the undergraduate students are 78%, 70% and 83% respectively. Manning (2000) found two groups of people as popular target of the credit card companies: the lower class and the students. In his testimony in front of the United States Senate Manning (as cited in Scott, 2005, p. 69) he stated the reasons for the credit card companies in choosing university students as a target population, few of which are:

(1) Students are, typically, highly consumption driven, thus running up high credit card bills, along with high interest rates because of their tendency to not pay off their balance(s), (2) The credit card companies expect that a student’s parent(s) will pay off child’s debts for fear of them getting a poor credit rating, (3) The credit card company establishes product loyalty at a young age and (4) Students will, in general, get out of school and make an income, hopefully enough to pay off their debts and possibly accrue some more in the process of looking for a job, and so forth.

In addition to Manning, another reason why banks have chosen the university students as a target population is that banks are giving high importance to research and development. As a result of research and development activities they are following, may be conducting, studies about the financial literacy of the university students which have been found to be low by many researchers (Chen and Volpe, 1998; Hira and Brinkman, 1992; Hogarth & Hilgert, 2002; Markovich & DeVaney, 1997; Mandell, 2008; Moore, 2004). During the 200-2001 academic year, more than 800 colleges and universities in the United States restricted credit card marketing on their campuses (Manning, 2000, p. 70) but, almost 250 public universities allowed

credit card companies in their campuses. The reason for this allowance was that senates of the universities provide funding to their institutions from credit card companies.

The Situation of Credit Cards in Turkey

In Turkey, the situation is not very different from the United States. Banks market credit cards by dividing the potential customers according to their financial values such as students, married people, retired people...etc. (Savaşçı and Tatlıdil, 2006, p. 63). Previously I mentioned my personal experience about credit card marketing of the banks in the university. In another experience of mine, I received a credit card from a private bank in 1999 although I did not apply for one. I called the bank and asked the reason for this situation. The bank official said that because our university had agreed with their bank to receive students' fees, they opened an account in my name and since I had an account in their bank, they issued a credit card in my name. This example is the same as what 250 universities in United States did in 2000-2001 academic year as previously mentioned. According to Yurtseven (2008, p. 125) the number of university students who have at least one credit card was 500,000 in 2005. This number is expected to have increased by now. Yurtseven (2008, p. 129), in her study with 1,138 university students about their credit card usage found that "66% of the students hold credit cards". These numbers are pretty good for the credit card issuers. According to Akartepe (2006, p. 57) "most of the banks in Turkey are developing special approaches, in the case of credit cards, to university students which are thought to be their prospective important customers". In addition, Kitapçı (2009) found that 34% of the students have been informed about the credit cards via campus presentations of the banks. 19% of the students applied to a credit card from

the campuses' at the banks' presentation desks. Almost two thirds of the university students have credit cards in their own name (pp. 23-27).

Kitapçı's (2009) survey conducted in Sivas Kayseri and Yozgat cities of Turkey with 921 university The purpose of the study was to investigate reflections of the credit card usage on university students. He found that Students at the age of 25 or over give more importance to the interest rates of the credit cards. He also found that peers and family plays an important role in students' credit card choice

Kinds of Credit Card Users

According to Courtless (1993, p. 8), "two main functions of credit cards have been identified: a means of payment and source of credit". These functions of the credit cards lead to a categorization of credit card users according to their payment practices. First category of users see credit cards as a means of payment and pay their credit card balances full each month. Second category of users usually see credit cards as a source of credit and have a general tendency to pay some of their monthly balances and carry an outstanding balance on their credit cards. The literature is confusing in terms terminology in labeling first category of users. Some name the first category of users as 'transactors' (Littwin, 2007; Simon, Smith & West, 2010), some name these users as 'convenience' (Kim & DeVaney, 1998; Robb, 2007) while some use both labels interchangeably (Naseri & Elliott, 2007). Hsieh (2004) uses both terms separately for a different categorization. The second category of users are labeled as 'revolvers' (Hussian, 2005; Zywicki, 2008).

For the purposes of our research the categorization and definitions of these user types by Visa company (2004, p. 15) were adapted:

Cardholders can be split into two broad groups. The first group is referred to as 'transactors' – those cardholders who pay their

cards in full and do not pay interest charges. The second group is referred to as 'revolvers' – cardholders who do not pay their card in full and therefore incur interest charges. Individual cardholders migrate between the two groups.

In studies involving credit cards, revolvers and transactors constitute an important place. Effect of their payment practices may be influential on their knowledge and attitudes toward credit cards.

Robb (2007, p. 84) in his survey with 6520 university students found that students with the lower levels of financial knowledge are likely to carry revolving balances on their credit cards. He also found that:

- a) Students who received their credit cards from their parents are less likely to carry a revolving balance than those who received their cards from banks mail based.
- b) Females are more likely to carry revolving balances on their cards than males.
- c) Juniors and seniors were more likely to revolve a balance as compared with graduate students
- d) Business majors are less likely to carry a revolving balance.
- e) Employed students are more likely to carry a revolving balance
- f) Students who report using credit cards when financial aid is not sufficient to cover their education-related expenses were more likely to carry a balance. (Robb, 2007, pp. 105-108)

Ludlum and Moskalionov's (2010, p. 39) study with Russian university students revealed that only 17.04% of Russian students are transactors. They commented on these findings as 'This might not be a problem if students were aware of the dangers of credit. However, we found that Russian students are just as lost at their American counterparts on credit card knowledge' (Ludlum and Moskalionov, 2010, p. 40)

Moore (2004, p. 142) in her study with college students found that revolvers were likely to be juniors or seniors who had observed their parents having credit-related problems; transactors are more likely to be single and having high grade point average; and students with a positive attitude toward the acquisition and use of credit cards were more likely to be transactors.

Yurtseven (2008) surveyed 1,138 public and private university students in Turkey about their credit card usage habits. She reported that 68.9% of the students were transactors. In her survey, she found no statistically significant differences between the public and private university students's payment practices (p. 138).

In a study by İbrahim Kırçova (2007), characteristics of revolvers and transactors were identified. The responses of the 697 people in Turkey was analyzed in order to identify the consumers' credit card habits, and reasons to use credit cards and their influence on credit card shopping behaviors. In this study Kırçova found that revolvers have negative attitudes toward credit cards due to the revolving balances on their cards; the reason of the revolvers in using credit card is their low level of income and unpostponable needs. Beside taking the credit card as a payment instrument these consumers see credit cards as credit opportunities and try to have commodities and services which normally cannot be taken by the low incomes (p. 93).

On the other hand transactors use credit cards wisely. Transactors consider their budgets and purchase power while using credit cards. Transactors do not increase their purchases unless their level of income increases. Transactors see credit cards as prestige (Kırçova, 2007, p. 94)

To conclude, being a transactor or revolver is very important in terms of credit card literacy since payment practices of credit card users are related with knowledge of and attitudes towards credit cards. Besides the conceptual definition of transactor and revolver an operational definition is needed for the purposes of our study. Based on the literature these two types of credit card users are defined in operational terms: (1) Revolver is a credit card user who did not pay her or his credit card bills in three or more times in full during the last 12 months (2) Transactor is a

credit card user who pays his or her credit card bills always in full or did not pay her or his credit card bills in full at most 2 times during the last 12 months. Next part of this section will about literacy which is the root meaning of financial literacy.

Literacy

Before moving to financial literacy, one must look at the concept of literacy due to the fact that financial literacy has root meaning in literacy. The most common use of the word literacy can be found in reading and writing. However, literacy means different things to different people in different contexts (Knobel, 1999, p. 72).

Voithofer and Winterwood (2010, p. 687) see computer and information literacy are “essential for success as many types of learning and careers are tied to computer technologies”. For Hinnant and Len-Ríos (2009, p. 86) “behavioral ability, or the ability to obtain and act on information, is required alongside cognitive facility for a person to be considered health literate”. According to Dennis (2004, p. 206), “media literacy is a part of the socialization process, introducing the young into what is largely adult territory”. Popli (1999, p. 127) comments on scientific literacy as to be considered an “essential part of general education and culture all over the world”

Although there exist many definitions of literacy, the more comprehensive one is the UNESCO’s definition since UNESCO has been studying on literacy since its foundation in 1946 (UNESCO, 2003, p. 1).

Literacy is the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning enabling an individual to achieve his or her goals, develop his or her knowledge and potentials, and to participate fully in the community and wider society. (UNESCO, 2003, p. 8).

All types of literacy are important as Kōichirō Matsuura Director-General of UNESCO states “literacy is freedom” (UNESCO, 2003, p. 1). Among these

literacy types, of course, the literacy in reading and writing is the most important one. Its significance can also be understood from the United Nations announcement of “2003-2013 is the United Nations Literacy Decade” (United Nations [UN], 2002). For the purposes of our study, financial literacy will be explored in the next section.

Financial Literacy

Financial literacy is having the knowledge, skills and confidence to make responsible financial decisions (Task Force on Financial Literacy, 2010). This clear definition of financial literacy by Canada shows that financial literacy requires: essential mathematical, reading and comprehension skills, an understanding the meaning of money and how it is exchanged, an understanding the sources of money and where it is spent. These points are assumed to be gained by anyone who is engaging in finances.

Although the Canadian definition of financial literacy is seen clearly, in its nature, financial literacy is a complex concept. The reason for this complexity is that financial literacy has two dimensions. It includes both the understanding of basic financial concepts and the ability to use that information wisely in personal and financial decisions. Beside the complexity, “financial literacy is a relative concept” (Australian Securities & Investments Commission [ASIC], 2003). ASIC (2003, p. 11) states that is relative to the complexity of the financial system and products in a society and an individuals’ needs and circumstances. For example financial knowledge of person before 1980s and the person born after 1980s are different. This difference is due to the changing financial applications and newly emerged financial products and changing financial circumstances in a given country. The most striking example for this relativity in terms of country differences, can be found between the U.S.A. and some other countries in the case of credit score applications. In the

U.S.A. according to the Fair Credit Reporting Act (FCRA), (Federal Trade Commission [FTC], 2010a) an employer has right to use a consumer report including the credit history of an applicant, and has the right to screen candidates with poor credit history. Fair Trade Commission (FTC) informs the employers as follows:

As an employer, you may use consumer reports when you hire new employees and when you evaluate employees for promotion, reassignment, and retention — as long as you comply with the Fair Credit Reporting Act (FCRA). Sections 604, 606, and 615 of the FCRA spell out your responsibilities when using consumer reports for employment purposes. (FTC, 2010b).

Although this situation is challenged and tried to be changed by some states in the U.S.A. by new legislations (www.bargaineering.com; www.delawareemploymentlawblog.com) this act increases the complexity of the financial literacy by adding important dimensions and remains to be an important indicator of differences in financial literacy between countries. In Turkey there is no such law allowing employers to hire or deny job candidates according to their credit scores. In Turkey, payment by installment has a very wide application. For the financial literacy, this application is different from many countries where payment by installment is rarely applied for example in the U.S.A. and in Russia only with campaigns (S. Nurdoğan, personal communication, May 3, 2010).

Differences in financial applications result in differences in the definitions. Noctor, Stoney and Stradling (1992) define financial literacy as the ability to make informed judgments and to take effective decisions regarding the use and management of money. In another definition personal financial literacy defined as “the ability to read, analyze, manage and communicate about the personal financial conditions that affect material well being” (Anthes, 2004, p. 133). According to the Garmen (2006, p. 3) financial literacy is “ones’ knowledge of facts, concepts, principles, and technological tools that are fundamental to being smart about money”

The above definitions seem to be similar in terms of their coverage in financial issues. When the root meaning of literacy is combined with the expected financial capabilities, many definitions of financial literacy can be created. However, Remund (2010, p. 276) criticizes the U.S.A. national financial literacy as being “lack of clear definition of financial literacy in both conceptual and operational issues” Remund (2010, p. 279) studied on definition of financial literacy and found the following:

Conceptual definition generally fall into five categories: “(1) knowledge of financial concepts, (2) ability to communicate about financial concepts, (3) aptitude in managing personal finances, (4) skill in making appropriate financial decisions and (5) confidence in planning effectively for future financial needs”.

He provided a more comprehensive conceptual definition of financial literacy:

Financial literacy is a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through appropriate, short-term decision-making and sound, long-range financial planning, while mindful of life events and changing economic conditions. (Remund, 2010, p. 284).

Remund (2010), besides the conceptual definition, sees operational definition as important as the conceptual definition in terms measuring financial literacy in tangible ways. A definition without operational variables is useless because it is difficult to conduct studies. Remund (2010, p. 290) identified four most common operational definitions of financial literacy from the studies done until 2000: “(1) budgeting, (2) saving, (3) borrowing and (4) investing”.

Studies Related to Financial Literacy in the World

The United States of America

Although history of research in financial literacy is older, striking studies on financial literacy in the U.S.A. was conducted by Princeton Survey Research Associates (PSRA) (1996) with 1001 investors and resulted in 82% of them are financially illiterate. One year later the same organization researched financial literacy in 1770 households (PSRA, 1997) and found that almost 60% of the people were financially illiterate.

Continuous financial literacy studies of college students have been carried out by JumpStart Coalition which is a non-profit organization based in Washington, DC, U.S.A. In their own terms JumpStart Coalition is an organization of organizations that share an interest in advancing financial literacy among students in pre-kindergarten through college (<http://www.jumpstart.org/about-us.html>). The organization has been studying consistently on financial literacy since 1997.

The first study of the JumpStart Coalition was a baseline study in 1997 (Mandell, 2008, p. 21) including of 31 multiple-choice questions relating to personal finance decisions and applied to high school seniors, college students, and working young adults. The name of the study was Personal Financial Survey. The results of the study was that all respondents achieved 57.3% for all questions. This failing of the young adults drive the organization to apply a revised version of the Personal Financial Survey every two year. Students' correct answer percentages in subsequent studies were 51.9% in 2000, 50.2% in 2002, 52.3% in 2004, 52.4% in 2006 and 48.3% in 2008 (Mandell, 2008).

In 2009 a financial literacy survey was conducted by Bowling Green State University (Bowling Green State University, 2010) with 236 respondents. As different from other surveys state above, this survey consists of items to include students' responses on certain statements. The survey did not include knowledge questions as Jumpstart survey. According to the survey results 54% of the students indicated they had fair to poor knowledge about student loans and 38% indicated that they had fair to poor knowledge about budgeting. Budgeting and students loans are important components of financial literacy. The result can be said to be similar to the results of JumpStart Coalition's PFS results.

Beyond the study of university students, gender (Chen & Volpe, 2002; Goldsmith & Goldsmith, 2006; Grace, 1999; Jarecke & Taylor 2008) and race (Medina & Chau, 1998) issues are also researched in financial literacy in separate studies. Jarecke and Taylor (2008) conducted a case study to explore in-depth the pedagogy of financial literacy programs for women and how these programs address their educational needs.

In a more recent study Robb (2007, p. 97) found that "females have lower financial knowledge scores than males; sophomores and juniors have higher financial knowledge scores as compared to graduate students". In this study he was conducted a survey with 3884 students and he also reported the following results about the financial literacy of the students:

Business majors have higher financial knowledge scores; students who reported having parents with a lower income were found to have lower scores when compared with having middle income parents.; students who were financially independent had higher scores on the financial knowledge measure (Robb, 2007, pp. 105-108).

Australia

First survey of financial literacy in Australia was conducted in 2002 by Beal and Delpachitra to the first year university students. The results of the study showed that university students were not skilled, nor knowledgeable in financial matters and that this would tend to impact negatively on their future lives through incompetent financial management. (Beal and Delpachitra, 2003, p. 68).

In 2004 , a survey on Australians and Financial Literacy, by Commonwealth Bank Foundation (CBF), it was found that about 60% of the respondents answered 50% of the questions correctly (Worthington, 2008, p. 354). In this study students were analyzed under the category of unemployed and found to have poor financial skills.

Australia's first national survey on financial literacy was conducted on behalf of the ANZ bank by Roy Morgan Research in 2003 (Marcolin and Abraham, 2006) Worthington (2006, p. 75) used ordered logit models to extend the results of this study and found the following:

People with the occupation of farm worker, and those whose highest educational level is Year 10 or lower, year 12 or technical college have a greater likelihood of a low level of financial literacy while all other things being equal, males, older persons, people whose occupations are professional, business owners and executives, small business and farm owners, and semiskilled trades, those with a university education and those with higher levels of income, savings and mortgage debt have a greater likelihood of a high level of financial literacy.

United Kingdom

The government and the non-governmental organizations such as Credit Action, The National Institute of Adult Continuing Education, and The Office for Fair Trading have given a great deal of attention to financial capability. In the U.K. terminology

the term 'financial capability' is used instead of 'financial literacy'. However it has been difficult for the researcher to reach related studies conducted with university students. Nevertheless, some data about the financial literacy in the U.K. will be presented in order to provide an opinion.

Schagen and Lines's (as cited in Worthington, 2008, p. 357) results were generally better than those from the U.S.A. research. Of the sub-groups, students were the least confident about financial decisions and single parents were least committed to savings.

In a nation-wide financial literacy survey (Financial Services Authority [FSA], 2006) the results were as follows:

The large majority of people do consistently make ends meet, although while some spend less than their income, others use credit to plug the gap; 61% strongly agree they would rather cut back on spending than accumulate debt on a credit card, and another 23% tend to agree. 7% of people say they have no idea of their current account balance; most people pay some attention to their bank account statements: only 6% appear to ignore bank statements altogether, while 42% say they keep and check receipts against statement entries; the great majority of the population do not regularly sign up to new credit cards: only 20% have taken out a credit card in the last five years. Personal loans are less prevalent (held by 14% of the population compared with 56% for credit cards) though the market is growing. 21% hold credit cards which they do not pay off in full each month.

In sum, financial literacy studies from different countries show that financial knowledge of university students is low. Some of these studies include knowledge of credit cards. Credit card literacy is a new concept to the area. For this reason a review of the financial literacy studies provides a perspective before starting to explore credit card literacy.

Credit Card Literacy

Until recent times, knowledge of credit cards was investigated under the financial literacy. In extensive studies about financial literacy credits cards constitutes only a small part (Mandell, 2008; Jumpstart, 2010). Although credit cards are directly related with financial literacy why researchers did not give more importance to credit card literacy is still ambiguous.

Beyond directly related concepts with financial literacy such as budgeting, knowledge of credit cards contains a large pile of subtitles such as regulations, interest rates, dues and fines, using style. These are not few to be compiled into another research matter.

The term ‘credit card literacy’ has not been found in the research context. The term is mostly used as a name of financial programs, which are designated to teach especially young people how to use credit cards wisely. These young people are thought to be a financial risk. Credit card literacy programs are applied in the U.S.A. Examples of such programs are Credit-Wise Cats ,Center for Students Credit Card Education (CSCCE) and State of California Department of Financial Institutions (DFI).

A comprehensive conceptual and operational definition of credit card literacy is still missing. The reason for this is, no doubt, lack of studies directly about the credit card literacy. That is why, with the purposes of our research, studies on credit card knowledge and financial literacy will be referenced in order to provide a definition of credit card literacy.

Likewise the concept of financial literacy, credit card literacy means knowledge of credit cards, which is also relative. Credit card applications differ

within the time and from country to country. Therefore any definition of credit card literacy may reflect these differences on its constructs.

The most important aspect of financial management is a good financial knowledge. Knowledge is the key term in our definition of credit card literacy. Before moving into defining credit card literacy, studies related to credit card knowledge will be explored.

Studies Related to Credit Card Knowledge

In the present literature no study was found directly measuring credit card knowledge with its various aspects which are mentioned in the previous parts, Credit card knowledge of the students have been measured as part of studies most of which were about financial literacy, consumer behaviors, spending patterns and debt behaviors. In this study, data of the previous studies regarding credit card knowledge was extracted from those studies.

Bradshaw and Evers-Lush (1993) conducted a research with 495 university students to find whether college students in the Southern Region of the United States are knowledgeable consumers and users of credit cards. 70.7% of the students indicated that they knew how credit companies work; 60% knew what to do if they could not pay their debts; 53.2% knew their rights and obligation regarding credit cards; 96% knew what to do if their credit cards are lost or stolen and 87.3% knew the annual percentage rate (APR) interest charged by their credit card companies.

Robles (2004, p. 26) in his study of college students' knowledge and attitudes toward credit cards with 242 respondents found that "male students have slightly higher knowledge of credit cards than females. He also found that ethnicity, age, class standing, grade point average, level of credit card debt have no effect on the credit card knowledge of the students"

Robb (2007, p. 106) in a study of college student's credit card use found that "personal financial knowledge does appear to have a significant influence on how individuals use their credit cards, and there do appear to be some relationships between credit card knowledge, credit card attainment, and credit card usage"

Moore (2004) in her study of college students' credit card knowledge, attitudes and practices with 2113 undergraduate students found that 16% of the students indicated lack of knowledge of their credit card balances. She also reached the following results:

1. Students who have a positive attitude toward the acquisition and use of credit cards and those had a high credit card knowledge score were most likely to have greater number of credit cards.
2. Students with a low level of credit card knowledge were likely to use their cards for housing expenses/cash advances.
3. Students with a positive attitude toward the acquisition and use of credit cards were more likely to be transactors.
4. Freshmen and sophomores appeared to have lower levels of credit card knowledge (Moore, 2004, p. 87).

In Moore's (2004) study, parents' income, financial support from job or scholarships, being a business major were also found statistically significant in predicting college students' level of credit card knowledge.

In a more recent survey in Russia, in 2008, Ludlum and Moskalionov (2010) surveyed 540 Russian university students about their use of credit cards. They stated that 14.26% of Russian students knew the interest rate they paid on credit, in contrast to the 60.74% who had no idea on the interest rate. In addition, 12.59%, knew of late payment charges while 63.7% had no idea of late payment charges on their credit card; 11.48%, knew the penalty for being over their credit balance; and 61.48% have no idea about overbalance penalty.

As noted earlier, credit card knowledge has been measured mostly in financial literacy studies. Among the financial literacy studies the ones who have

been conducted by the JumpStart Coalition were striking. In their baseline study of 1997 there were nine credit questions out of 31 multiple choice items. In these nine questions there were credit and credit card questions. Students overall score was 57.3% and 59.9% when credit related question were taken out. Mandel (2002, p. 152) comments on these differences as “score difference of 8.6 percent... means that credit literacy is weaker than other aspects of personal financial literacy”.

Dannes and Hira (1987) surveyed 323 college students in order to measure their knowledge of credit cards, insurance, personal loans, record keeping, and overall financial management. Eight areas related to credit card knowledge and students’ correct responses were:

- (1) Use for identification , 85%, (2) Cost after payment due date, 83%, (3) Interest rate computation, 65%, (4) Interest when bill is paid within 30 days, 60%, (5) Billing error procedures, 59%, (6) Issuance without application, 43%, (7) Credit card billing error legislation, 37%, (8) Procedure when faulty merchandise was purchased, 28% (Danes & Hira, 1987, p. 7)

Above results proved us valuable data that as the questions move from general use of credit cards to knowledge of credit card laws and regulations the number of correct answers declines. Therefore studies and training programs related to the legal side of the credit cards gains special importance.

In the literature review no studies related to university students’ credit card knowledge, nor population in general also, in Turkey were found. Only partial data was found in two studies. Yurtseven’s (2008, p. 143), survey with 1,138 public and private university students it was revealed “that 49% of the university students have ‘partial’ information about the legal arrangements about credit cards”. A survey by Kitapçı (2009) was conducted in Sivas, Kayseri, and Yozgat cities of Turkey with 921 university students. He found that

64.7% of the students have read credit card contract while obtaining the credit card; 30.3% of the students knew the default interest rate of the own card; proportion of the female students in reading credit card contract was higher than male students; proportion of the male students by knowledge of default interest rate of the credit card was higher than female students (Kitapçı, 2009, pp. 21-28).

These two studies were designed in order to explore university students' credit card usage. The survey instruments could not be reached in order to make inferences about the credit card knowledge of the samples surveyed.

Consequently credit card knowledge of the students, based on the literature, is related to the following areas:

1. Demographic information
2. Socio economic information
3. Number of credit cards
4. Years in credit card use
5. Knowledge of features of personal credit card(s)
6. Knowledge of interest and special fee applications
7. Payment practices
8. General knowledge of credit card use
9. Knowledge of law and regulations

The literature review asserts that students are lack of knowledge of credit card use and their own credit card features.

Kaya (2009, p. 28), states that the following points are important for a sound credit card knowledge: "Interest rates and applications, monthly statements, dues and fines, security issues and having a good knowledge of laws and regulations". What Kaya (2009) mentioned are the key concepts of the credit card knowledge.

Beside these key concepts, application of this knowledge is another important issue as well as credit card payment practices. Having a good knowledge of credit cards does not mean a lot unless it is not reflected in the practice. Payment practices are very important as mentioned in ‘Kinds of Credit Card Users’ part previously.

As literature on financial literacy and credit card knowledge is concerned, ‘credit card literacy’ is defined in this study as a measure of the degree to which one understands key credit card concepts as well as his or her own credit card features and possesses the ability to communicate this knowledge in payment practices and using credit cards wisely. Key credit card concepts are knowledge of interest and interest applications, dues and fines associated with credit card usage, security issues and knowledge of related laws and regulations. Own credit card features are the special application of the issuer on the credit card. Examples of such features are different interest rates, bonus promotions, and annual card fees.

Remund (2010, p. 288) states that “operationalization could involve a study or survey focusing on just one aspect of financial literacy, with concurrent or subsequent studies or surveys to test other variables”. In this study credit card literacy, is operationally defined as the knowledge of key credit card concepts, as well as personal credit card features. On the basis of existing laws and regulations key credit card concepts are: applications of annual fee, acceptance and use of credit cards, credit card limit issues, objections to monthly credit card statements, unlawful use of credit cards, security issues in the use of credit cards, applications of interest, payment issues and credit card contracts. Personal credit card features, as mentioned previously, are the special application of the banks on the credit cards such as different interest rates, bonus promotions, and annual card fees. In this study personal

credit card features are conventional interest rate, default interest rate and interest rates and related fees of cash advance.

CHAPTER III

METHOD OF THE STUDY

Population and Sample Selection

The population of the study is the university students who are registered at the universities in Turkey to receive formal education. A convenience sample of 100 students were selected for the study. The sample is selected among the students who are registered at Boğaziçi University Summer School 2010 which lasts for six weeks in from July 2010 to August 2010.

Design and Development of the Instrument

The data collection instrument was developed by the researcher after a review of the studies related to the credit cards, credit cards and university students, financial literacy, Turkish credit card laws and regulations, informal learning practices of university students (Altay, 2007; Chen and Volpe, 1998; Chen and Volpe, 2002; Davies and Lea, 1995; Gerber, 2001; Hira and Brinkman, 1992; Jorgensen, 2007; Kaya, 2009; Kitapçı, 2009; Markovich and DeVaney, 1997;; Moore, 2004, Robb, 2007; Robles, 2004; Schugurensky, 2000; Seçkin, 2008; Yıldiran, 2009; Yurtseven, 2008).

The instrument was revised according to the recommendations of the thesis committee. To establish face and content validity the instrument was sent to two researchers and two finance experts. According to advices of thesis committee and experts, question format of the instrument was changed. Open-ended questions and multiple choice questions were added to the instrument. In addition six items about credit card features and payment practices were adapted from Yıldiran's (2009)

credit card usage survey. The instrument was resubmitted to the thesis committee, two researchers and two finance experts. Final modifications in the wording and conceptual design of the instrument performed after last reviews.

The instrument used to collect data consisted of three parts. The first part of the instrument (see Appendix E) was composed of demographic questions, payment practices and personal credit card features. In this study demographics include: gender, age, marital status, class standing, employment status, income level, sources of income, number of credit cards, experience in credit card usage, payment responsibility, monthly credit card usage, and monthly credit card spending. Two questions about payment practices lead to categorization of the kinds of credit card users. Four questions about personal credit card features are designed assess respondents' knowledge of personal credit cards.

The second part of the instrument (see Appendix F) consists of Credit Card Knowledge Test (CCKT) which is composed of two sections: (1) Total 11 (two open-ended and nine multiple choice) questions that measured university students' knowledge of credit cards (2) Eleven true and false questions with regard to knowledge concerning credit cards. It also contains two control questions, by which inconsistent answers would lead to the elimination of the respondents' questionnaire from evaluation. Eighth question in the first section and sixth question in the second section were the control questions.

The third part of the instrument which is a structured interview (see Appendix G) is composed of five questions about the informal learning forms, which were employed during the acquisition of respondents' present credit card knowledge. The interview questions were developed in order to collect the following data:

1. The sub-categories of informal learning, by which respondents have gained their present credit card knowledge.
2. Effects of the negative personal experiences with credit cards related to informal learning.
3. Effects of the others in learning about the credit cards.

Operationalization of the Instrument

Since the study aims to analyze university students' credit card knowledge level, learning ways in which they acquire this knowledge and their credit card payment practices, the instrument was designed according to the operational definitions of the related concepts.

Operationalization of Part One

Due to the fact that payment practice is an important indicator of credit card knowledge, kinds of credit card users are defined as 'revolvers' and 'transactors' as previously mentioned: 'Revolver' is a credit card user who has not paid her or his credit card bills in three or more times in full during the last 12 months; and 'transactor' is a credit card user who has paid her or his credit card bills always in full or has not paid his or her credit card bills in full at most two times during the last 12 months (See Appendix H for operationalization of items of the survey instrument).

Personal credit card feature is a part of credit card literacy in this study. As previously mentioned, personal credit card feature is the special application of the banks on the credit cards. In this study personal credit card features are conventional interest rate, default interest rate and interest rates and related fees of cash advance.

Questions regarding to personal credit card features were designed according to these terms (See Appendix H).

Operationalization of Part Two (CCKT)

An operational definition of credit card literacy was made in the literature review chapter as the knowledge of key credit card concepts, as well as personal credit card features. In this definition key credit card concepts were applications of annual fee, acceptance and use of credit cards, credit card limit issues, objections to monthly credit card statements, unlawful use of credit cards, security issues in the use of credit cards, applications of interest, payment issues and credit card contracts. These key concepts were organized on the basis of existing laws and regulations. Personal credit card features are the special application of the banks on credit cards. Examples of such features are different interest rates, bonus promotions, cash advance fee, and annual card fee. Questions in CCKT were designed to meet these operational definitions. (See Appendix H).

Operationalization of Part Three

For the aims of the study formal learning is defined as a type of learning which “occurs in an organised and structured environment (in an education or training institution or on-the-job) and is explicitly designated as learning (in terms of objectives, time or resources)” (Cedefop, 2008, pp. 45-46). For the same purpose non-formal learning is defined as a type of learning which “occurs in an organised and structured environment (in an education or training institution or on-the-job) and is explicitly designated as learning (in terms of objectives, time or resources)” (Cedefop, 2008, pp. 45-46). Finally, informal learning is defined as “a form of learning which takes place outside the curricula provided by formal and non-formal

educational institutions and programs” (Schugurensky, 2000, p. 2). Informal learning has many sub-categories such as self-directed learning, incidental learning, learning from others and learning from experience. Interview questions are designed to meet the definitions and categories above (see Appendix H).

Scoring of the Credit Card Knowledge Test (CCKT)

Credit card knowledge means the general knowledge of credit card usage, as well as, knowledge of personal credit card features. CCKT consisted of two parts: A multiple choice part and a true-false part. In addition, 3 items from part one which are questions about personal credit card features, was added to the general scoring of the CCKT. Each question had only one correct answer except the seventh question which has two correct answers (SEE Appendix I for the answers of the CCKT). Each correct answer was graded with one point whereas incorrect answers and “do not know” responses were not graded and accepted as zero. Twenty-five questions were graded in total: 11 multiple choice and open ended questions, 11 true-false questions and three questions from personal credit card features. Therefore, total score of CCKT was 25.

As mentioned previously, in this study credit literacy means the knowledge of key credit card concepts, as well as personal credit card features. With the addition of personal credit card features, overall CCKT score consists of both sides of this definition. Thus, CCKT score provides us an opportunity to assess credit card literacy of the sample.

Procedures

The data is collected within two weeks at the last week of July and first week of August, 2010 by a trained interviewer. At the beginning of the application of the

instrument the respondents were asked whether they have at least one credit card in their own name. Firstly the respondents were interviewed according to the third part of the instrument. The reason for the application of the interview first is to protect respondents being affected from the questions of CCKT which includes knowledge of credit card usage and related terms. The responses of respondents were written by the interviewer in the spaces on the third section. Secondly the respondents were asked to complete the first and second sections of the instrument containing the demographic information and credit card knowledge test.

Analysis of Data

The three sections of the survey were analyzed using descriptive and inferential statistics. The Statistical Package for the Social Sciences (SPSS) version 13.0 software was used for data analyses. In the analysis of interview questions content analysis was applied to the items in order to find learning ways in which the subjects acquire knowledge of credit cards. In the analysis of research questions both descriptive and inferential statistics such as mean, standard deviation, one-way ANOVA and *t*-test was employed in order to describe the characteristics of the sample and to find whether there is a significant differences between the counterparts of each independent variable.

First analysis was applied to the control questions of the survey. Out of 100 completed survey questionnaires five were eliminated because of the inconsistent answers between eighth question in CCKT's first section and sixth question in CCKT's second section. This elimination was performed in order to provide more reliable results from the survey.

CHAPTER IV

RESULTS OF THE STUDY

Results of the Content Analysis

Interview form of the instrument was consisted of questions about learning experiences of the university students regarding knowledge of credit cards. It was found that the whole sample acquire credit card knowledge by informal learning. Informal learning sources in which they acquire credit card knowledge are presented in Table 1.

Table 1. Informal Learning Sources of the Subjects

Informal learning sources	N	Frequency
Advice from significant others	51	53.68
News on TV, internet or newspapers	51	53.68
E-mail or SMS messages from banks	48	50.52
Reading credit card contracts	47	49.47
Reading monthly credit card statements	33	34.74
Advice from parents	31	32.63
Asking to a bank official	25	26.32
Doing search in banks' web sites	23	24.21
Doing internet search on forums, blogs etc.	16	16.84
Advice from siblings	11	11.58
Reading laws and regulations related to credit cards	3	3.16

Written responses of the interviewee's firstly coded and categorized according to the Schugurensky's (2000) first two categories of informal learning. Self directed learners were coded as '1' and incidental learners were coded as '2'. The number of self-directed learners was 55 (%59,9) and the number of incidental learners was 40 (%42,1) (see Table 2).

Table 2. Descriptive Statistics of the Informal Learning Forms of the Respondents

Dominant informal learning form	Frequency	Percent
Self-directed	55	57,9
Incidental	40	42,1
Total	95	100,0

In second analysis, the responses were categorized according to the effects of the negative experiences of the respondents with regard to credit cards. The ones who had a previous negative experience which directed the respondent to learn more about credit cards were coded as '1'; the others were coded as '2'. The number respondents who are affected by the self negative experiences with credit cards and directed to learn were 25 (%26,3) and those who were not affected was 70 (%73,7) (see Table 3).

Table 3. Descriptive Statistics of the Sample who Have Negative Experience with Credit Cards

Negative experience with credit cards	frequency	Percent
Yes	25	26,3
No	70	73,7
Total	95	100,0

In third analysis, categorization was applied according to the effects of acquaintances who have negative experiences with credit cards and drove the respondents to learn more about credit cards. The respondents who were affected by those people were coded as '1' and the ones who were not as '2'. The number of students who were affected by acquaintances who had negative credit card experiences was 37 (%38,9) and those who were not affected was 58 (%61,1) (see Table 4).

Table 4. Descriptive Statistics of the Sample who are Affected by Acquaintances in Learning About Credit Cards

Effects of acquaintances	frequency	Percent
Yes	37	38,9
No	58	61,6
Total	95	100,0

Further, the data collected and categorized from the interviews were put into the analyses of the research questions.

Before going into the analyses of the research questions the CCKT scores of the respondents were tested in order to find whether the scores show a normal distribution or not. One-Sample Kolmogorov-Smirnov test was applied to the credit card knowledge scores of the respondents. The results are shown in Table 5:

Table 5. Results of One-sample Kolmogorov-Smirnov Test

		Knowledge score
Normal Parameters *	Mean	8,1900
	Std. Deviation	3,37757
Most Extreme Differences	Absolute	,092
	Positive	,086
	Negative	-,092
Kolmogorov-Smirnov Z		,923
Asymp. Sig. (2-tailed)		,362

* Refers to test distribution is normal and calculated from data.
N = 100.

According to the test results, the CCKT scores of the respondents shows a normal distribution ($p=0,362$; $p>0,05$). Therefore parametric tests such as ANOVA and t-tests can be used in the analyses of the research questions. Demographic characteristics of the sample are gives throughout the research questions.

Results of the Research Questions

Research Question One

What is the knowledge level of the university students regarding their CCKT score?

In this study knowledge level of the respondents in relation to CCKT score was analyzed in five separate categories. These categories were established according to the scoring of CCKT. Scores on CCKT between zero and four mean that the respondents' knowledge level is 'very low'. If the respondents get between five and nine on CCKT score their knowledge level is labeled as 'low'. Having an 'average' knowledge level means that the respondents' scores on CCKT are between 10-16. If the respondents' scores on CCKT are between 17-21, they 'high' knowledge level. To be able to have 'very high' level of knowledge, the respondents must score between 22-25 on CCKT. Table 6 shows the respondents' knowledge level regarding their CCKT scores:

Table 6. Respondents' Knowledge Level Regarding Their CCKT Scores

Knowledge level	Frequency	Percent
Very low	5	5,26
Low	52	54,74
Average	37	38,95
High	1	1,05
Very high	--	--
Total	95	100,0

Research Question Two

- a) What is the overall CCKT score of the sample according to gender, age, marital status, class standing, employment status, income level, sources of income, number of credit cards, experience in credit card usage, payment responsibility, monthly credit card usage, and monthly credit card spending?
- b) Is there significant differences between the counterparts of each independent variable?

To present the results of the question two clearly, answers to both parts of the question will be provided under the sub-headings of demographic categories.

Gender

The majority of respondents were males. Mean scores of the male and female respondents on CCKT are presented in Table 7:

Table 7. CCKT Scores of the Sample by Gender

Gender	Frequency	Percent	Mean	Std. deviation
Male	53	55,8	8,7170	3,05952
Female	42	44,2	8,5000	2,65266
Total	95	100,0	8,6211	2,87397

In order to test whether there are significant differences between male and female respondents in their CCKT scores one-way ANOVA test was employed. CCKT scores did not differ significantly across sexes $F(1, 93) = ,132, p = ,717$. Table 8 shows one-way ANOVA test results for gender.

Table 8. One-way ANOVA Results for CCKT Scores by Gender

	Sum of Squares	df	Mean square	F	Sig.
Between groups	1,103	1	1,103	,132	,717
Within groups	775,255	93	8,336	--	--
Total	776,358	94	--	--	--

$p \leq 0.05$

Age

Majority of the sample (54.7%) were aged between 21 and 23, and between 18-20 years old (33.7%). Only 11 (11.6%) respondents were at the age of 23 or over. Mean scores of these three age groups on CCKT are presented in Table 9:

Table 9. CCKT Scores of the Sample by Age

Age groups	Frequency	Percent	Mean	Std. deviation
18-20	32	33,7	7,8125	2,52008
21-23	52	54,7	8,8462	2,85866
23 and over	11	11,6	9,9091	3,47720
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences among three age groups in their CCKT scores one-way ANOVA test was employed. CCKT scores did not differ significantly across age groups $F(2, 92) = 2,618, p = 0,78$. Table 10 shows one-way ANOVA test results for age groups.

Table 10. One-way ANOVA Results for CCKT Score by Age Groups

	Sum of Squares	df	Mean square	F	Sig.
Between groups	41,805	2	20,902	2,618	0,78
Within groups	734,553	92	7,984	--	--
Total	776,358	94	--	--	--

$p \leq 0.05$

Marital Status

All of the respondents were single (see Table 11). Thus, the results of CCKT score according to marital status do not differ from the total score of the sample. Since there are no counterparts in this independent variable, comparisons of CCKT scores are not possible.

Table 11. CCKT Scores of the Sample by Marital Status

Marital status	Frequency	Percent	Mean	Std. deviation
Single	95	100	8,6211	2,87397
Married	--	--	--	--
Total	95	100,0	8,6211	2,87397

Class Standing

Among the 95 respondents, majority consists of seniors (32.6%), juniors (29.5%) and sophomores (23.2%). These groups are followed by freshmen (7.4%), language preparation (4.2%), master's (2.1%), and a doctoral student (1.1%). Mean scores of class standing groups on CCKT are presented in Table 12:

Table 12. CCKT Scores of the Sample by Class Standing

Class standing	Frequency	Percent	Mean	Std. deviation
Language Preparation	4	4,2	5,7500	1,50000
Freshmen	7	7,4	7,4286	1,27242
Sophomore	22	23,2	8,8636	2,71320
Junior	28	29,5	8,6429	2,77841
Senior	31	32,6	8,8387	3,07784
Graduate	3	3,2	12,2500	3,53553
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences among class standing groups in their CCKT scores one-way ANOVA test was employed. CCKT scores did not

differ significantly across class standing groups $F(5, 89) = 1,513, p = ,179$. Table 13 shows one-way ANOVA test results for class standing groups.

Table 13. One-way ANOVA Results for CCKT Score by Class Standing

	Sum of Squares	df	Mean square	F	Sig.
Between groups	62,681	5	12,536	1,513	,179
Within groups	713,677	89	8,019	--	--
Total	776,358	94	--	--	--

$p \leq 0.05$

Employment Status

Majority of the respondents were non-working (66.3%). In the working group, 23 students (24.2%) were part-time and 9 students (9.5%) were full-time workers. Mean scores of non-working, full-time working, and part-time working groups on CCKT are presented in Table 14:

Table 14. CCKT Scores of the Sample by Employment Status

Employment status	Frequency	Percent	Mean	Std. deviation
Non-working	63	66,3	8,3968	2,51793
Full-time	9	9,5	9,3333	3,70810
Part-time	23	24,2	8,9565	3,45725
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences among non-working, full-time working and part-time working groups in their CCKT scores, one-way ANOVA test was employed. CCKT scores did not differ significantly across groups of employment status $F(2, 92) = ,620, p = ,540$. Table 15 shows one-way ANOVA test results for employment status.

Table 15. One-way ANOVA Results for CCKT Scores by Employment Status

	Sum of Squares	df	Mean square	F	Sig.
Between groups	10,322	2	5,161	,620	,540
Within groups	766,036	92	8,326	--	--
Total	776,358	94	--	--	--

$p \leq 0.05$

Income Level

Income levels of the sample were grouped according to subsistence in Turkey, which is approximately 600.-TL. Income of the majority of the respondents (52.6%) was between 600-1199.-TL. The second biggest income group (35.8%) is between 0-599.-TL. Other groups and mean scores of income groups on CCKT are presented in Table16:

Table 16. CCKT Scores of the Sample by Income Level

Income level	Frequency	Percent	Mean	Std. deviation
0-599 TL	34	35,8	8,4118	2,81896
600-1199TL	50	52,6	8,6200	2,87771
1200-1700 TL	6	6,3	9,0000	2,36643
1800-2399 TL	4	4,2	11,0000	3,36650
2400 TL and over	1	1,1	4,0000	--
Total	95	100,0	8,8211	2,87387

In order to test whether there are significant differences among income groups in their CCKT scores, one-way ANOVA test was employed. CCKT scores did not differ significantly across income groups $F(4, 90) = 1,428$, $p = ,231$. Table 17 shows one-way ANOVA test results by income groups.

Table 17. One-way ANOVA Results for CCKT Scores by Income Groups

	Sum of Squares	df	Mean square	F	Sig.
Between groups	46,343	4	11,586	1,428	,231
Within groups	730,015	90	8,111	--	--
Total	776,358	94	--	--	--

$p \leq 0.05$

Sources of Income

In the data analysis seven categories of different income sources of the students appeared. In the first category there were 30 students (31.6%) who have income from their families and scholarships. Twenty-five students who constitute the second category, there appeared 25 students (26.3%) whose income was from only their families. In the third category there were 8 students (8.4%) whose income source was only scholarship. In the fourth category there were 15 students (15.8%) whose income source was only work. The fifth category consists of 11 students (11.6%) whose income sources were their families and work. In the sixth category there were 4 students (4.2%) whose income source was only work. The fifth category consists of 2 students (2.1%) whose income sources were their families, work and scholarship. Mean scores of groups of sources of income on CCKT are presented in Table 18:

Table 18. CCKT Scores of the Sample by Sources of Income

Sources of income	Frequency	Percent	Mean	Std. deviation
Only scholarship	8	8,4	6,8750	2,23207
Only family	25	26,3	8,2000	2,69258
Only work	15	15,8	9,4667	3,22638
Family and scholarships	30	31,6	9,0667	2,28840
Work and scholarship	4	4,2	7,5000	2,64575
Work and family	11	11,6	9,3636	4,22546
Work, family and scholarship	2	2,1	6,0000	,00000
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences among sources of income groups in their CCKT scores, one-way ANOVA test was employed. CCKT scores did not differ significantly across sources of income groups, $F(6, 88) = 1,461$, $p = ,201$. Table 19 shows one-way ANOVA test results by sources of income.

Table 19. One-way ANOVA Results for CCKT Scores by Sources of Income

	Sum of Squares	df	Mean square	F	Sig.
Between groups	70,377	6	11,723	1,461	,201
Within groups	706,020	88	8,023	--	--
Total	776,358	94	--	--	--

$p \leq 0.05$

Number of Credit Cards

Majority of the students have only one credit card. Sixty-five students (68.4%) hold one credit card. Twenty-three students (24.2%) have 2 credit cards. Seven students (7.4%) have three or more credit cards. Mean scores of respondents who hold one credit card, two credit cards and three or more credit cards on CCKT are presented in Table 20.

Table 20. CCKT Scores of the Sample by number of credit cards

Number of credit cards	Frequency	Percent	Mean	Std. deviation
1	65	68,4	8,1385	2,81112
2	23	24,2	9,9130	2,96821
3 and over	7	7,4	8,8571	1,95180
Total	95	100,0	8,6211	2,87387

One-way ANOVA analysis indicated that CCKT scores differed significantly across number of credit cards by university students, $F(2, 92) = 3,433$, $p = ,036$. Table 21 shows one-way ANOVA test results for CCKT scores by number of credit cards. In order to find which groups are different, Tukey post-hoc comparison test was employed. Tukey post-hoc comparisons of three groups (students who have one credit card, students who have two credit cards, and students who have three or more credit cards) indicated that students who have two credit cards ($M = 9,91$, 95% CI [8,63; 11,20]) have higher CCKT scores than students who have one credit card ($M = 8,13$, 95% CI [7,44; 8,84]). Comparisons between the students who have three and more credit cards ($M = 8,85$, 95% CI [7,05; 10,66]) and the other two groups were not statistically significant at $p < .05$. Table 22 shows Tukey post-hoc comparison test results for number of credit cards.

Table 21. One-way ANOVA Results for CCKT Scores by Number of Credit Cards

	Sum of Squares	df	Mean square	F	Sig.
Between groups	53,921	2	26,960	3,433	,036
Within groups	722,437	92	7,853	--	--
Total	776,358	94	--	--	--

$p \leq 0.05$

Table 22. Tukey HSD Comparison Results for Number of Credit Cards

(I) Number of credit cards	(J) Number of credit cards	Mean difference (I-J)	Std. error	Sig.	95% Confidence interval	
					Lower bound	Upper bound
1	2	- 1,77458*	,67987	,028	-3,3942	-,1550
	3 and over	-,71868	1,11472	,796	-3,3742	1,9368
2	1	1,77458*	,67987	,028	,1550	3,3942
	3 and over	1,05590	1,20963	,659	-1,8257	3,9375
3 and over	1	,71868	1,11472	,796	-1,9368	3,3742
	2	-1,05590	1,20963	,659	-3,9375	1,8257

* Refers to mean differences are significant at the 0,05 level

Experience in Credit Card Usage

Twenty-eight students (29.5%) have one year experience in using their credit cards. Twenty-five (26.3%) students have used credit cards for two years, and 22 students (23.2%) have three years experience in credit card use. Thirteen students (13.7%) have used their credit cards for four years. Seven students (7.4%) have five or more years of experience in credit card usage. Mean scores of respondents who have used credit cards for one year, two years, three years, four years, and five years or more on CCKT are presented in Table 23:

Table 23. CCKT Scores of the Sample by Experience in Credit Card Usage

Experience in credit card usage	Frequency	Percent	Mean	Std. deviation
1	28	29,5	8,1786	2,34210
2	25	26,3	8,2800	3,72514
3	22	23,2	8,6364	2,23704
4	13	13,7	9,7692	3,37031
5 and over	7	7,4	9,4286	1,98806
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences among groups of experience in credit card usage in their CCKT scores, one-way ANOVA test was employed. CCKT scores did not differ significantly across five experience groups, $F(13, 81) = 1,325$, $p = ,216$. Table 24 shows one-way ANOVA test results by experience in credit card usage.

Table 24. One-way ANOVA Results for CCKT Scores by Experience in Credit Card Usage

	Sum of Squares	df	Mean square	F	Sig.
Between groups	25,831	13	1,987	1,325	,216
Within groups	121,474	81	1,500	--	--
Total	147,305	94	--	--	--

$p \leq 0.05$

Payment Responsibility

Fifty students pay their own credit cards (52.6%). Credit card payments of 45 students (47.4%) were met by their families. Mean scores of respondents who pay their own credit cards and for whom others make payments on CCKT are presented in Table 25:

Table 25. CCKT Scores of the Sample by Payment Responsibility

Payment responsibility	Frequency	Percent	Mean	Std. deviation
Self	50	52,6	8,6000	2,75533
Family	45	47,4	8,6444	3,03132
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences between respondents who pay their own credit cards and for whom others make payments in their CCKT scores, one-way ANOVA test was employed. CCKT scores did not differ

significantly across students who pay their own credit cards and the students for whom others make payments, $F(1, 93) = ,006$, $p = ,940$. Table 26 shows one-way ANOVA test results by payment responsibility.

Table 26. One-way ANOVA Results for CCKT Scores by Payment Responsibility

	Sum of Squares	df	Mean square	F	Sig.
Between groups	0,47	1	,047	,006	,940
Within groups	776,311	93	8,347	--	--
Total	776,358	94	--	--	--

$p \leq 0.05$

Monthly Credit Card Usage

In the sample, 35 students pay between 50%-74% of monthly purchases by credit cards; 30 students pay between 25%-49%; 22 students pay between 0%-24%; 8 students pay between 75%-100%. Mean scores of monthly credit card usage groups on CCKT are presented in Table 27:

Table 27. CCKT Scores of the Sample by Monthly Credit Card Usage

Monthly credit card usage (%)	Frequency	Percent	Mean	Std. deviation
0-24	22	23,2	7,9545	2,05814
25-49	30	31,6	8,7667	2,78770
50-74	35	36,8	8,8286	3,43413
75-100	8	8,4	9,000	2,61861
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences across monthly credit card usage groups in their CCKT scores one-way ANOVA test was employed. CCKT scores did not differ significantly across students who pay their own credit cards and the students for whom others make payments, $F(3, 91) = ,519$, $p = ,670$. Table 28 shows one-way ANOVA test results by monthly credit card usage.

Table 28. One-way ANOVA Results for CCKT Scores by Monthly Credit Card Usage

	Sum of Squares	df	Mean square	F	Sig.
Between groups	13,065	3	4,355	,519	,670
Within groups	763,293	91	8,388	--	--
Total	776,358	94	--	--	--

$p \leq 0.05$

Monthly Credit Card Spending

Respondents were divided into SIX groups according to monthly credit card spending. Therefore spending groups are expected to be widespread. Spending groups and their mean scores on CCKT are presented in Table 29:

Table 29. CCKT Scores of the Sample by Monthly Credit Card Spending

Monthly credit card spending	Frequency	Percent	Mean	Std. deviation
0-100 TL	17	17,9	7,3333	2,51661
101-200TL	27	28,4	7,8333	,75277
201-300 TL	28	29,5	8,8824	2,66288
301-400 TL	9	9,5	7,8750	3,35676
401-500 TL	7	7,4	9,2500	3,35676
Over 500 TL	7	7,4	8,3333	2,82583
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences across monthly credit card spending groups in their CCKT scores, one-way ANOVA test was employed. CCKT scores did not differ significantly across groups of monthly credit card spending, $F(5, 89) = ,110$, $p = ,990$. Table 30 shows one-way ANOVA test results by monthly credit card spending.

Table 30. One-way ANOVA Results for CCKT Scores by Monthly Credit Card Spending

	Sum of Squares	df	Mean square	F	Sig.
Between groups	4,777	5	,955	,110	,990
Within groups	771,581	89	8,669	--	--
Total	776,358	94	--	--	--

$p \leq 0.05$

Research Question Three

- a) How do university students acquire knowledge about credit cards?
- b) Is there any difference in CCKT scores of different learning ways in which university students acquire knowledge about credit cards?

Analyses of the interviews revealed that university students have gained credit card knowledge by informal learning ways. The types of informal learning for the responses are divided into four namely self-directed learning, incidental learning, learning from personal negative experiences and learning from others' negative experiences.

Fifty-five respondents (57.9%) reported to gain credit card knowledge by self-directed learning while 40 respondents reported to gain by incidental learning. Mean scores on CCKT regarding to these two forms of informal learning are presented in Table 31:

Table 31. CCKT Scores of the Sample by Informal Learning Ways

Informal learning form	Frequency	Percent	Mean	Std. deviation
Self-directed	55	57,9	9,1091	2,91022
Incidental	40	42,1	7,9500	2,71699
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences between self-directed learners and incidental learners in their CCKT scores, *t*-test was employed. Self directed learners have slightly higher CCKT ($M = 9,11$) than incidental learners ($M = 7,95$); however this difference was not significant. Therefore a *t*-test was adjusted for inequality of variances, $t(87,33) = ,1,92$, $p = ,052$. Table 32 shows *t*-test results for CCKT by informal learning form:

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Table 32. t-test Results for CCKT by Informal Learning Form

	Levene's test for equality of <u>variances</u>		t-test for Equality of means					95% Confidence interval of the <u>difference</u>	
	F	Sig.	t	df	Sig. (2- tailed)	Mean difference	Std. error difference	Lower	Upper
Equal variances assumed	,070	,792	1,970	93	,052	1,15909	,58825	-,00905	2,32723
Equal variances not assumed	--	--	1,922	87,326	,049	1,15909	,58184	-,00268	2,31550

Twenty-five respondents (26.3%) reported to gain credit card knowledge by having negative experiences with credit cards. Mean scores of students who had negative experiences with credit cards and students who did not on CCKT are presented in Table 33:

Table 33. CCKT Scores of the Sample by Negative Credit Card Experience

Negative experience with credit cards	frequency	Percent	Mean	Std. deviation
Yes	25	26,3	8,4400	2,43379
No	70	73,7	8,6857	3,02905
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences between the students who had negative experiences with credit cards and the students who did not in their CCKT scores *t*-test was employed. Students who did not have negative experiences with credit cards have slightly higher CCKT scores ($M = 8,69$) than students who had negative experiences with credit cards ($M = 8,44$); because this difference was not significant a *t*-test was adjusted for inequality of variances, $t(52,33) = -,41$, $p = ,716$. Table 34 shows *t*- test results for CCKT by negative credit cards experience:

Table 34. t-test Results for CCKT by Negative Credit Card Experience

	Levene's test for equality of <u>variances</u>		t-test for Equality of means					95% Confidence interval of the <u>difference</u>	
	F	Sig.	t	df	Sig. (2- tailed)	Mean differen ce	Std. error differen ce	Lower	Upper
Equal variances assumed	,501	,481	-,365	93	,716	-,24571	,67270	-1,58156	1,09013
Equal variances not assumed	--	--	-,405	52,329	,687	-,24571	,60664	-1,46284	,97141

Thirty-seven respondents (38.9%) reported to gain credit card knowledge from acquaintances who have negative experiences with credit cards. Mean scores of students who gained credit card knowledge from acquaintances who have negative experiences with credit cards and students who did not on CCKT are presented in Table 35:

Table 35. CCKT Scores of the Sample by Learning from Acquaintances

Learning from acquaintances	frequency	Percent	Mean	Std. deviation
Yes	37	38,9	8,5946	3,33716
No	58	61,6	8,6379	2,56630
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences between the students who gained credit card knowledge from acquaintances who have negative experiences with credit cards and the students who did not in their CCKT scores *t*-test was employed. Students who did not learn from negative experiences of acquaintances have slightly higher credit card knowledge scores ($M = 8,64$) than students who did ($M = 8,59$); because this difference was not significant a *t*-test was adjusted for inequality of variances, $t(62,65) = -,07$, $p = ,943$. Table 36 shows *t*-test results for CCKT by having learning from acquaintances:

Table 36. t-test Results for CCKT by Learning from acquaintances

	Levene's test for equality of variances		t-test for Equality of means						
	F	Sig.	t	df	Sig. (2- taile d)	Mean differenc e	Std. error difference	95% Confidence interval of the <u>difference</u>	
Equal variances assumed	1,012	,317	-,071	93	,943	-,04334	,60789	-1,25048	1,16381
Equal variances not assumed	--	--	-,067	62,654	,947	-,04334	,64385	-1,33010	1,24343

Research Question Four

- a) What kinds of credit card users are the respondents?
- b) Is there any difference in CCKT scores between different kinds of credit card users?

Fifty-two respondents (54.7%) were revolvers while 43 respondents (45.3%) were transactors. Mean scores of revolver and transactor students on CCKT are presented in Table 37:

Table 37. CCKT Scores of the Sample by Kinds of Credit Card Users

Kinds of users	Frequency	Percent	Mean	Std. deviation
Revolver	52	54,7	9,1154	2,76288
Transactor	43	45,3	8,0233	2,92354
Total	95	100,0	8,6211	2,87387

In order to test whether there are significant differences between revolver and transactor students in their CCKT scores *t*-test was employed. Revolvers have slightly higher credit card knowledge scores ($M = 9,12$) than transactors ($M = 8,02$); because this difference was not significant a *t*-test was adjusted for inequality of variances, $t(87,60) = ,1,86$, $p = ,065$. Table 38 shows *t*- test results for CCKT by kinds of credit card users:

Table 38 t-test Results for CCKT by Kinds of Credit Card Users

	Levene's test for equality of <u>variances</u>		t-test for Equality of means					95% Confidence interval of the <u>difference</u>	
	F	Sig.	t	df	Sig. (2- taile d)	Mean differenc e	Std. error difference	Lower	Upper
Equal variances assumed	,374	,542	1,868	93	,065	1,09213	,58468	-,06893	2,25319
Equal variances not assumed	--	--	1,858	87,598	,067	1,09213	,58785	-,07617	2,26043

CHAPTER V

DISCUSSION AND CONCLUSION

The major purpose of this study was to analyze credit card knowledge level of the university students, learning ways in which they acquire this knowledge and their credit card payment practices. The study also aimed to investigate whether demographic data of students namely gender, age, marital status, class standing, employment status, income level, sources of income, number of credit cards, experience in credit card usage, payment responsibility, monthly credit card usage, and monthly credit card spending; their learning ways; and their payment practices influenced their credit card knowledge level.

In this chapter, disadvantages of the previous studies, discussion of the research results with referencing to the previous studies, conclusion, limitations of the study, and recommendations for further studies will be presented.

Disadvantages of Previous Studies

No single instrument and/or research measuring credit card literacy has been found in the literature as far as reachable sources are concerned. The main reason for this situation is that the most of the studies have focused on the financial literacy so far and credit cards represent only one part of financial literacy. Therefore, credit cards may have not received a great deal of attention to be studied separately. The second reason is that in conceptual definitions, literacy is associated with both knowledge and attitudes and some other concepts. Thus, studies about the knowledge of credit cards are multisided studies that measure at least two concepts related to credit cards. In such studies not to make the questionnaires longer in order to have high rate of

complete responses, researchers keep the items as few as possible. The reduced items may result in measuring only certain dimensions of credit cards and may not measure the variables as expected.

For these reasons, in this chapter of the study the reader may not find satisfactory references to the previous studies. There are some additional reasons for lack of references. The studies also show a great deal of local differences. Firstly, the application and the features of the credit cards are different among countries. So, these differences can be seen in the studies. Most the studies in the literature of the present study are the U.S.A. Firstly the U.S.A. research demographics include ethnicity, student loans and financial education. In explaining the research results, these components constitute a great deal of focus. Secondly, and more importantly, application of the credit cards in terms of laws and regulations are different. In the U.S.A., studies about credit card knowledge includes such item as annual percentage rate (APR), credit history, department store credit cards and credit unions. These are not the case for many other countries including Turkey. Therefore, demographics and credit card understanding differ to some degree.

Additionally, our study has an operational definition of credit card literacy that includes key credit concepts and personal credit card features. The credit card instrument of this study was designed to measure credit card knowledge on the basis of local laws and regulations as well as application of this knowledge. Moreover, this study has research questions about the informal learning and credit card knowledge that have not being studied.

Lastly, the empirical data on credit card knowledge in Turkey is scarce. Turkish studies related to credit card knowledge are very few in number. Actually, credit card knowledge is embedded into credit card surveys, which are not designed

to measure credit card knowledge, just have some indirect items. As a conclusion, based on the lack of reference data on the credit card knowledge of the university students, it was found suitable to provide data from financial literacy studies about the university students. The reason for this provision is to give the reader an opportunity of comparison of the data.

Discussion of the Research Results

The results to research question one showed that knowledge level of the university students is generally low. Mean scores of 52 students (54.74%) fell between five and nine over a total score of 25. Number of students whose knowledge level is ‘average’ is 37 (38.95%). Only one student (1.05%) had a ‘high’ knowledge level. Number of students in ‘very low’ knowledge level is five (5.26%). Totally, 60% of the students are below ‘average’ level and 40% over ‘average’. Table 39 shows knowledge level of the students regarding their CCKT scores. The result of the study supports the findings of Mandell (2002) and Ludlum and Moskalionov (2010). In these studies credit card knowledge of university students was found to be low.

Table 39. Respondents’ Knowledge Level Regarding Their CCKT Scores

Knowledge level	Mean interval	Frequency	Percent
Very low	0-4	5	5,26
Low	5-9	52	54,74
Average	10-16	37	38,95
High	17-21	1	1,05
Very high	22-25	--	--
Total	--	95	100,0

In this study, CCKT was developed based on the definition of credit card literacy. As a result credit card literacy level of the students was also found to be low

The results to research question two showed that there are no significant differences in CCKT scores between male and female university students. Descriptive statistics for CCKT scores by gender is presented in Table 40. Previous research results related to university students' sex and credit card knowledge vary. Markovich and DeVaney (1997) and Robles (2004) reported males have higher level of credit card knowledge in their studies with college students while Hira and Brinkman (1992) reported on the contrary. Robb (2007) found in his online survey of financial literacy that being female was associated with a lower financial knowledge score. Jorgensen (2007) stated no differences in the level of financial knowledge between males and females. The result of the present study seems to support Jorgensen (2007), but differences in the fields of studies should be taken into consideration.

Table 40. Descriptive Statistics for CCKT Scores by Gender

	N	Mean	Std. deviation	Std. error	95% Confidence Interval for Mean		Min.	Max.
					Lower bound	Upper bound		
Male	53	8,7170	3,05952	,42026	7,8737	9,5603	3,00	19,00
Female	42	8,5000	2,65266	,40931	7,6734	9,3266	4,00	14,00
Total	95	8,6211	2,87397	,29485	8,0356	9,2065	3,00	19,00

The results to research question two showed that there are no significant differences in CCKT scores by the age of the university students. Table 41 shows descriptive statistics of CCKT scores by age groups. Jorgensen (2007) found that students gained financial knowledge as they grew older over time. Warwick and Mansfield (2000) stated that American students are not knowledgeable about financial issues between ages 16 and 22. However, Robles (2004) found no age difference on financial knowledge. The result of the present study supports Robles's (2004) study.

Table 41. Descriptive Statistics for CCKT Scores by Age Groups

	N	Mean	Std. deviation	Std. error	95% Confidence Interval for Mean		Min.	Max.
					Lower bound	Upper bound		
18-20	32	7,8125	2,52008	,44549	6,9039	8,7211	3,00	12,00
21-23	52	8,8462	2,85866	,39643	8,0503	9,6420	4,00	19,00
23 and over	11	9,9091	3,47720	1,04841	7,5731	12,2451	5,00	16,00
Total	95	8,6211	2,87387	,29485	8,0356	9,2065	3,00	19,00

The results to research question two showed that there are no significant differences in CCKT scores by class standing of the university students. Table 42 presents CCKT scores of the university students in different class ranks. Similarly, Robles (2004) found no significant differences in credit card knowledge and class standings of the university students; therefore his results support our hypothesis. However there are. Markovich and DeVaney (1997) found that seniors are not very knowledgeable about use of credit while Robb (2007) stated that freshmen were the least knowledgeable with overall scores. Moore (2004) found that freshmen and sophomores have lower levels of credit card knowledge than juniors and seniors. Joergensen (2007) reported that knowledge increases incrementally from first-year freshmen to Master's students; being significant at the $p < .001$ level. Davies and Lea (1995) showed that year in school made a difference in credit attitudes.

Table 42. Descriptive Statistics for CCKT Scores by Class Standing

Class standing	Mean	Std. Deviation
Language Preparation	5,7500	1,50000
Freshmen	7,4286	1,27242
Sophomore	8,8636	2,71320
Junior	8,6429	2,77841
Senior	8,8387	3,07784
Graduate	12,2500	3,53553
Total	8,6211	2,87387

The results to research question two showed that there are no significant differences in CCKT scores by employment status of the university students. Table 43 presents descriptive statistics for CCKT scores by employment status of the university students. Chen and Volpe (1998) found that working students have higher financial knowledge than non workers (p. 115), while Robb (2007) showed that employment status had no significant effect on the financial knowledge measure. According to Dannes and Hira (1987) employed students are more likely to have higher credit card knowledge. The result of the present study supports Robb's (2007) findings. However, a difference was expected by the employment status due to the fact that working people have own responsibility of their finances and supposed to be knowledgeable about financial matters.

Table 43. Descriptive Statistics for CCKT Scores by Employment Status

	N	Mean	Std. deviation	Std. error	95% Confidence Interval for Mean		Min.	Max.
					Lower bound	Upper bound		
Non-working	63	8,3968	2,51793	,31723	7,7627	9,0310	3,00	14,00
Full-time	9	9,3333	3,70810	1,23603	6,4830	12,1836	5,00	16,00
Part-time	23	8,9565	3,45725	,72089	7,4615	10,4515	4,00	19,00
Total	95	8,6211	2,87387	,29485	8,0356	9,2065	3,00	19,00

The results to research question two showed that there are no significant differences in CCKT scores by income level of the university students. Table 44 presents descriptive statistics for CCKT scores by income level of the university students. Jorgensen (2007) found differences in financial knowledge of university students between those who have high income and those who have low income. Chen and Volpe (1998) found significant differences across income groups and support

Jorgensen' (2007) findings. Robb (2007) found no differences between the students with high income and with low income on financial knowledge. The result of our study is similar to Robb's (2007) study.

Table 44. Descriptive Statistics for CCKT Scores by Income Level

Income level	N	Mean	Std. deviation	Std. error	95% Confidence Interval for Mean		Min.	Max.
					Lower bound	Upper bound		
0-599	34	8,4118	2,81896	,48345	7,4282	9,3953	3,00	19,00
600-1199	50	8,6200	2,87771	,40697	7,8022	9,4378	4,00	14,00
1200-1799	6	9,0000	2,36643	,96609	6,5166	11,4834	5,00	12,00
1800-2399	4	11,0000	3,36650	1,68325	5,6431	16,3569	9,00	16,00
2400 and over	1	4,0000	--	--	--	--	4,00	4,00
Total	95	8,6211	2,87387	,29485	8,0356	9,2065	3,00	19,00

The results to research question two showed that there are no significant differences

in CCKT scores by sources of the income of the university students. Table 45

presents descriptive statistics for CCKT scores by sources of income of the

university students. Robb (2007) reported that financially independent students have

higher financial knowledge. Moore (2004) found that income from parents, job and

scholarships significantly related with credit card knowledge of the university

students. The results of the present study do not support the previous studies

although there was an expectation of difference due to the fact that sources of income

would have significant effects on the responsibility of the university students. A

working student was expected to be more knowledgeable on financial issues.

Table 45. Descriptive Statistics for CCKT Scores by Sources of Income

	N	Mean	Std. deviation	Std. error	95% Confidence Interval for Mean		Min.	Max.
					Lower bound	Upper bound		
Only scho.	8	6,8750	2,23207	,78916	5,0089	8,7411	3,00	10,00
Only family	25	8,2000	2,69258	,53852	7,0886	9,3114	4,00	13,00
Only work	15	9,4667	3,22638	,83305	7,6800	11,2534	5,00	16,00
Family and scho.	30	9,0667	2,28840	,41780	8,2112	9,9212	5,00	14,00
Work and scho.	4	7,5000	2,64575	1,32288	3,2900	11,7100	4,00	10,00
Work and family	11	9,3636	4,22546	1,27403	6,5249	12,2023	5,00	19,00
Work, family and scho.	2	6,0000	,00000	,00000	6,0000	6,0000	6,00	6,00
Total	95	8,6211	2,87387	,29485	8,0356	9,2065	3,00	19,00

The results to research question two showed that there are significant differences in CCKT scores by number of the credit cards. Table 46 presents descriptive statistics for CCKT scores by number of credit cards. Robb (2007) showed no significant differences in students' financial knowledge scores based on how many credit cards they have. Moore (2004) found that there is a significant relationship between students' credit card knowledge and number of credit cards held by the students such that students with high knowledge of credit cards are likely to have greater number of credit cards. Result of our hypothesis supports Moore (2004). The result showed that there is a significant difference in credit card knowledge scores between one credit card owners and two credit card owners. According to this result we expect three and more credit card owner with a higher knowledge score than the others. Although the result is quite limited to give us a chance to generalize, we can conclude that students with more than one credit card have more experiences with credit cards and related concepts. These students also bear more responsibility on credit cards. For these reasons students with two credit cards would be more knowledgeable than the students with one credit card.

Table 46. Descriptive Statistics for CCKT Scores by Number of Credit Cards

	N	Mean	Std. deviation	Std. error	95% Confidence Interval for Mean		Min .	Max.
					Lower bound	Upper bound		
1	65	8,1385	2,81112	,34868	7,4419	8,8350	4,00	19,00
2	23	9,9130	2,96821	,61891	8,6295	11,1966	3,00	16,00
3 and more	7	8,8571	1,95180	,73771	7,0520	10,6623	5,00	11,00
Total	95	8,6211	2,87387	,29485	8,0356	9,2065	3,00	19,00

Res The results to research question two showed that there are significant differences in CCKT scores by experience in credit card usage of the university students. Table 47 presents descriptive statistics for CCKT scores by experience in credit card usage. Present literature does not provide enough data to compare the result of the present study. However, students who have more experience with credit card usage are expected to be more knowledgeable. We can conclude that experience does not necessarily lead to knowledge.

Table 47. Descriptive Statistics for CCKT Scores by Experience in Credit Card Usage

Experience in credit card usage	N	Mean	Std. deviation	Std. error
1	28	8,1786	2,34210	,44262
2	25	8,2800	3,72514	,74503
3	22	8,6364	2,23704	,47694
4	13	9,7692	3,37031	,93476
5 and over	7	9,4286	1,98806	,75142
Total	95	8,6211	2,87387	,29485

The results to research question two showed that there are no significant differences in CCKT scores by payment responsibility. Table 48 presents descriptive statistics for CCKT scores by payment responsibility. When means of the two groups were analyzed it was found that the means were almost the same. We expected students

who are responsible to pay their own credit cards to be more knowledgeable.

Responsibility is also related with the employment status. When we look at the cross tabulation of the scores it was found that working students are responsible for their own payments. We expected this responsibility reflects on the knowledge score.

Table 49 show cross tabulation of the employment status and payment responsibility of the university students. A possible reason for the result of the present study would be generally low knowledge score regardless of monthly income, sources of income, and employment status.

Table 48. Descriptive Statistics for CCKT Scores by Payment Responsibility

	N	Mean	Std. deviation	Std. error	95% Confidence Interval for Mean		Min	Max.
					Lower bound	Upper bound		
Self	50	8,6000	2,75533	,38966	7,8169	9,3831	3,00	16,00
Family	45	8,6444	3,03132	,45188	7,7337	9,5552	4,00	19,00
Total	95	8,6211	2,87387	,29485	8,0356	9,2065	3,00	19,00

Table 49. Cross Tabulation of Employment Status and Payment Responsibility

			Responsibility of credit card payment		
			Self	Family	Total
Employment status	Non-working	Count	20	43	63
		% employment	31,7%	68,3%	100,0%
	Full-time	Count	9	0	9
		% employment	100,0%	,0%	100,0%
	Part-time	Count	21	2	23
		% employment	91,3%	8,7%	100,0%
Total	Count	50	45	95	
	% employment	52,6%	47,4%	100,0%	

The results to research question two showed that there are no significant differences in CCKT scores by monthly credit card usage. It also showed that there are no significant differences in CCKT scores by monthly credit card spending Table 50 presents descriptive statistics for CCKT scores by monthly credit card usage; Table

51 presents descriptive statistics for CCKT scores by monthly credit card spending. No results were found in the literature to compare the result of the present study. A reverse expectation would be such that students who purchase with credit card more would be knowledgeable due to the fact that they gained more experience in using credit cards.

Table 50. Descriptive Statistics for CCKT Scores by Monthly Credit Card Usage

Monthly credit card usage (%)	N	Mean	Std. deviation	Std. error
0-24	22	7,9545	2,05814	,43880
25-49	30	8,7667	2,78770	,50896
50-74	35	8,8286	3,43413	,58047
75-100	8	9,000	2,61861	,92582
Total	95	8,6211	2,87387	,29485

Table 51. Descriptive Statistics for CCKT Scores by Monthly Credit Card Spending

Monthly credit card spending	N	Mean	Std. deviation	Std. error
0-100 TL	17	7,3333	2,51661	1,45297
101-200TL	27	7,8333	,75277	,30732
201-300 TL	28	8,8824	2,66288	,61554
301-400 TL	9	7,8750	3,35676	1,18679
401-500 TL	7	9,2500	3,35676	,91342
Over 500 TL	7	8,3333	2,82583	,80289
Total	95	8,6211	2,87387	,29485

The results to research question three showed that university students have gained credit card knowledge by informal learning ways which are self-directed learning, incidental learning, learning from own negative experiences and learning from others' negative experiences.

Firstly, the results to the third research question showed that there are no significant differences in CCKT scores between the university students who learned this knowledge in a self-directed way and the university students who learned incidentally. Table 52 presents descriptive statistics for CCKT scores by informal learning form. This research question is new to the field. A significant difference among informal learning forms was expected. However the self-directed learner has knowledge score with mean 9,10 (SD±2,91) and incidental learner with a mean of 7.9 (SD±2,71). Group statistics showed us a difference. Although it is not statistically significant the result yielded a difference. Due to the efforts in learning, self-directed learners were expected to yield statistically significant results. Possible reasons for this result may stem from the difficulty and the language of CCKT, sample size or sample characteristics. However, it is a fact that the CCKT was prepared on the basis of laws and regulations about credit cards and sample credit card statements. Thus, there were no technical terms in CCKT.

Table 52. Descriptive Statistics for CCKT Scores by Informal Learning Form

Informal learning form	N	Mean	Std. deviation	Std. error mean
Self-directed	55	9,1091	2,91022	,39241
Incidental	40	7,9500	2,71699	,42959

Secondly, the result to the third research question showed that there are no significant differences in CCKT scores of the university students who had negative credit card experiences and the university students who do not. Table 53 presents descriptive statistics for CCKT scores by negative credit card experience. Tokunaga (1993) studied two groups of credit card users: Those who had experienced severe financial problems and a control group who did not experience such problems, and

found that the experimental group have a lower knowledge of credit cards. The result of our hypothesis does not support Tokunaga. We expected problem experienced students would be more motivated to learn. The difference may be due to the research design. Our instrument uses reported measures from the interview not the observations or detailed analyses. Another reason for the result would be such that experience is a psychological construct which would give different results under different circumstances. The last possible reason would be differences in group sizes with 2.8 ratio.

Table 53. Descriptive Statistics for CCKT Scores by Negative Credit Card Experience

Negative credit card experience	N	Mean	Std. deviation	Std. error mean
Yes	25	8,4400	2,43379	,48676
No	70	8,6857	3,02905	,36204

Thirdly, the result to the third research question showed that there are no significant differences in CCKT scores of the university students who have gained credit card knowledge from acquaintances who have negative experiences with credit cards and the university students who have not. Table 54 presents descriptive statistics for CCKT scores by learning from acquaintances. Jorgensen (2007) found significant differences in financial knowledge, attitudes, and behaviors based on the level of peer and parental influence. Social learning theory would suggest that people are typically absorbed in social relations that exert powerful influences on their decisions. The result of the present study does not support neither Jorgensen (2007) nor social learning theory. When group statistics were analyzed it was found that there is a slight difference in the mean scores of the groups. Possible reasons for the result of our research question are research design, sample characteristics or difficulty of the knowledge test.

Table 54. Descriptive Statistics for CCKT Scores by Learning From Acquaintances

Acquaintances' credit card related problems	N	Mean	Std. deviation	Std. error mean
Yes	37	8,5946	3,33716	,54863
No	58	8,6379	2,56630	,33697

The results to research question four showed that there are no significant differences in CCKT scores of the university students between revolvers and transactors. Table 55 presents CCKT scores of kinds of credit card users. Robb (2007) reported higher levels of financial knowledge were not significantly related to the decision to revolve a balance. Hogarth and Hilgert (2002) concluded that higher scores on measures of financial literacy should result in a greater likelihood of individuals following recommended financial practices. Robb (2007) posits that responsible credit card behaviors were positively associated with personal financial knowledge. Yurtseven's (2008) survey with 1,138 public and private university students in Turkey about their credit card usage habits revealed that 68.9% of the students were transactors. In her survey, she found no statistically significant differences between the public and private university students's payment practices.

The results of the present research fail to support the findings from previous studies, such that transactors were expected to be more knowledgeable. However, when group means were analyzed it was found that revolvers have a mean score of 9,11(SD±2,7) and transactors have s mean score of 8,02 (SD±2,9). Revolvers had higher mean scores then transactors. Possible reasons would be characteristics of the sample, and size of the sample.

Table 55. Descriptive Statistics for CCKT Scores by Kinds of Credit Card Users

Payment status	N	Mean	Std. deviation	Std. error mean
Revolver	52	9,1154	2,76288	,38314
Transactor	43	8,0233	2,92354	,44584

Conclusion

The purpose of this study was to analyze university students' credit card knowledge level, learning ways in which they acquire this knowledge and their credit card payment practices.

Overall results of the knowledge test indicated that mean of the sample on CCKT was 8.62 ($SD \pm 2.87$). If we consider that the highest possible score was 25, the result is very low than expected. According to the research results university students' level of credit card knowledge is low. Many possible reasons can be attributed to the results. An important one would be the difficulty of the knowledge test. In the design of the instrument, it was decided not to include responses based on the respondents' self reports. Thus the instrument was designed to measure the actual credit card knowledge of the university students. For this reason continuous scale questions were added to the instrument. There is fact that the knowledge test had many items deducted from the laws, regulations and sample credit card statements. The terms of these documents were used without having a modification on them. Therefore, some terms seems technical on the knowledge tests. The logic behind not to change the terms in a more understandable manner is that the users are responsible for the terms and applications as they are. Convenience sampling would be another reason and will be stated in the limitation further.

Number of credit cards was the only independent variable in this study resulted in a statistically significant difference in the knowledge of credit card scores. Students who are exposed to more credit card use also expected to be familiar with key credit card concepts. These students bear more responsibility than their one credit card owned counterparts. These students also read more credit card statements and have more relations with the banks.

Similar expectations can be made for rest of the research questions but the results were surprising in fact. No statistically significant difference was found in the critical areas of demographics, payment practices and learning experiences. A difference in these areas is usually expected in social sciences. The main reason for these results is the low level of credit card knowledge of the sampling (mean score of 8.62; $SD \pm 2.87$). Regardless of demographic characteristics, payment practices and learning experiences, our sample yielded very low scores. Especially payment practices and learning experiences are important areas in credit card knowledge. Although students differed in their payment practices, payment responsibilities and learning experiences, the reason for non-difference in their credit card knowledge levels can be explained by further studies.

Students were found to have low level of credit card knowledge. Therefore we conclude that students are credit card illiterate. Facts of our country can also be attributed to the overall results. As mentioned in literature review chapter, no empirical data and studies were found neither for students' credit card knowledge and financial literacy nor rest of the peoples'. Previous studies in Turkey did not focus on the learning and knowledge issues of credit card users. This would be normal as we know that such studies in the United States began to increase after the mid-1980s, after almost 15 years later credit cards became popular. In Turkey credit

cards boomed after the 1990s. We expect in the following years, more research would be conducted in both credit card knowledge and financial literacy in Turkey. Beside the drawbacks of having lack of resources, the results should also be attributed the students themselves. Another important reason for the low level of credit card knowledge is the learning ways of the respondents with regard to credit card knowledge. As presented in the research results, all of the subjects acquire credit card knowledge through informal learning. It is concluded that learning about credit cards by informal learning is not enough to gain adequate knowledge of credit cards. Even though 49.47% of the respondents stated they have read their credit card contracts, their level of credit card knowledge is low. As mentioned, Tough (1983) proposed that a learning project can be achieved in minimum seven hours focusing with highly deliberative effort in order to gain and retain certain definite knowledge or skill. From the analyses of interviews we know that students engage in learning projects about credit cards. 55 students (59.9% of the sample population) have learned about the credit cards through self-directed learning. We can conclude that the students' learning project failed. A possible reason may be allocation of time. Minimum needed time for a learning project (seven hours) could not be reached. If the students spent enough time with their learning projects, the expected results could be achieved. Another possible reason may be the quality of the process in which the learning project handled. Students seem not focused on the subject properly and spent sufficient efforts in order to achieve their projects. University students were expected to be more conscious, and curious about certain issues which have vital effects on them. In the age of internet, any information can be reached easily and fast. The learning project could be achieved even only on the computer. As mentioned previously, Schugurensky's (2000) self-directed learning was based on

two dimensions: Intentionality and awareness. In their learning projects students was intentional. But their awareness seems to be weak. With a high level of awareness students could achieve their learning projects.

Limitations of the Study

The present study has several limitations. First, a pilot study for the instrument have not been applied due to the time restrictions, therefore face validity and reliability was established through expert reviews. Second, a random sampling was not used due to time and financial constraints. Third, sample was selected only from Boğaziçi University which is a public university of a region. All limitations may limit the generalizability of the findings of the present study.

Recommendations for Further Studies

This research, despite the limitations, would contribute to the fields of adult education and economics. Findings of the present study explored the credit card knowledge of the university students based on the demographic characteristics, credit card practices and their learning experiences. A further testing of credit card knowledge is needed. Therefore, following recommendations will be useful for further studies:

1. A larger sample may be used from both public and private university students.
2. Some items of the instrument which includes technical terms may be changed without disturbing the root meaning of the terms in order to make respondents to understand the items in a clearer manner.

3. Items on the interview form may be adapted to short open-ended questions.
4. A scale on sources of informal learning about credit cards would be developed.
5. A scale to identify informal learning forms would be developed.

Based on the findings of present research, program planners are expected to develop training activities about wise use of credit cards especially for those who are about to use credit cards.

APPENDICES

DETAILED LIST OF THESIS AND DISSERTATIONS ABOUT CREDIT CARDS IN TURKEY UNTIL AUGUST 2010

Table 1. List of Thesis and Dissertations About Credit Cards in Turkey by August 2010

Legal issues about credit cards and credit card usage								
No	Reg. No.	Type	Title	Author	Year	Language	University	
1	19672	Unpublished master's thesis	Kredi kartı sözleşmelerinin borçlar hukuku yönünden nitelendirilmesi (Describing credit card contracts in tems of law of obligations)	Macit Güder	1991	Turkish	Gazi University, Ankara	
2	22620	Unpublished master's thesis	Kredi kartı uygulaması ve özel hukuk açısından kredi kartının hukuka aykırı kullanımı (Application of credit cards and unlawful use of credit cards in terms of private law)	Mustafa Çeker	1992	Turkish	Ankara University, Ankara	
3	149066	Unpublished master's thesis	Kredi kartı suçları (Credit cart crimes)	Ziya Koç	2004	Turkish	Marmara University, İstanbul	
4	158545	Unpublished master's thesis	Türk Ceza Hukuku kapsamında kredi kartı yolsuzlukları (Credit card frauds in Turkish Criminal Law)	Uygar Çöltekin	2005	Turkish	İstanbul University, İstanbul	
5	158697	Unpublished master's thesis	Türk Hukuku'nda kredi kartı ve kredi kartının hukuka aykırı kullanılmasından doğan hukuki sorumluluk (Credit cards and the civil liability arising from the unlawful use of the credit cards in Turkish law)	Serhat Sayın	2005	Turkish	Marmara University, İstanbul	

Table 1 continued

6	222506	Unpublished master's thesis	Kredi kartı başvuru aşamasında sahtecilik tespiti için bir veri madenciliği modeli (A data mining model for fraud detection at credit card application stage)	Mustafa Aykut Göral	2007	Turkish	İstanbul Technical University, İstanbul
7	228824	Unpublished doctoral dissertation	Adli muhasebe kapsamında kredi kartı dolandırıcılıkları ve Türkiye örneği (Credit card frauds in Turkey within the framework of forensic accounting)	Gökhan Kuloğlu	2007	Turkish	Celal Bayar University, Manisa
8	217880	Unpublished master's thesis	Kredi kartı hamilinin hukuki durumu (The legal status of credit card holder)	Özkan Cavit Hoşlan	2007	Turkish	İstanbul University, İstanbul
9	226863	Unpublished master's thesis	Kredi kartından doğan hukuki ilişkilerin sona ermesi ve sonuçları (Dissolution of legal connections regarding credit card and it's results)	Bahri Başar Şen	2008	Turkish	Dokuz Eylül University, İzmir
10	220141	Unpublished master's thesis	Kredi kartı kullanımında sahtecilik tespit sistemleri (Credit card fraud detection systems)	Yavuz Selim Keresteci	2008	Turkish	Gebze Institute of Technology, İstanbul
No	Reg. No.	Type	credit card applications Title	Author	Year	Language	University
1	18388	Unpublished master's thesis	Kredi kartı ve uygulamaları (Credit card and its applications)	Kemal Kuzu	1992	Turkish	İstanbul University, İstanbul
2	63555	Unpublished master's thesis	Bankaların kredi kartı uygulamaları "visa" örneği (Credit card applications of the banks "visa")	Ercan Altınok	1997	Turkish	Dokuz Eylül University, İzmir

Table 1 continued

3	126353	Unpublished master's thesis	Tüketici kredisi açısından kredi kartı uygulaması (Credit card system from the view of consumer credits)	Oğuzhan Buhur	2003	Turkish	Ankara University, Ankara
Credit card accounting							
No	Reg. No.	Type	Title	Author	Year	Language	University
1	20635	Unpublished master's thesis	Kredi kartlarının (kredi kartı kuruluşları, kredi kartı aracısı bankalar ve kredi kartı katılımcısı kuruluşları) hesap ilişkileri ve muhasebeleştirilmesi (Account relations and accountization of credit cards (credit card companies, mediating banks and credit card mediating institutions))	Muharrem Samur	1992	Turkish	Marmara University, İstanbul
2	144643	Unpublished master's thesis	Bankalarda kredi kartı işlemlerinin tespiti-analizi ve muhasebeleştirilmesine yönelik bir araştırma (A study on determining, analysing and accounting of the credit card transactions at banks)	Hakan Çiçek	2004	Turkish	Atatürk University, Erzurum
3	207697	Unpublished master's thesis	Bankalarda kredi kartı işlemleri ve muhasebesi (Credit card transactions and accounting in banks)	İkay Güler	2007	Turkish	Marmara University, İstanbul

Table 1 continued

Economic effects of credit cards								
No	Reg. No.	Type	Title	Author	Year	Language	University	
1	26026	Unpublished master's thesis	Türkiye'de kredi kartı sistemi ve ekonomik etkileri (credit card system in Turkey and its economical effects)	Ahmet Beşer	1993	Turkish	İstanbul University, İstanbul	
2	26933	Unpublished doctoral dissertation	Kredi kartları ve Türkiye'de kredi kartı uygulamalarının nakit para talebi üzerindeki etkileri (credit cards and influences of credit card applications on cash Money demand)	Fatma Gül Atay	1993	Turkish	Anadolu University, Eskişehir	
3	87061	Unpublished master's thesis	Kredi kartı ve debit kart uygulamaları ve karlılık açısından değerlendirme (Implementation of credit cards and debit cards and an evaluation in terms of profitability)	Timur Madenci	1996	Turkish	Marmara University, İstanbul	
4	87897	Unpublished doctoral dissertation	Türkiye`de kredi kartı uygulaması ve ekonomik etkileri (Credit card implementation in Turkey and its economic affects)	Eyyüp Yılmaz	1999	Turkish	Marmara University, İstanbul	
5	227556	Unpublished master's thesis	Kredi kartı kullanımının Türkiye ekonomisi üzerine etkileri (The effects of credit card usage on Turkey economics)	Gülru Ari	2008	Turkish	İstanbul Technical University, İstanbul	
6	227262	Unpublished master's thesis	Kredi kartı kullanımının Türkiye ekonomisi üzerine etkilerinin analizi (The analysis of credit card usage effects on economy)	Belgin Bilgen	2008	Turkish	Dokuz Eylül University, İzmir	

Table 1 continued

credit card contracts							
No	Reg. No.	Type	Title	Author	Year	Language	University
1	208245	Unpublished master's thesis	Kredi kartı sözleşmeleri (Credit cards contracts)	Hacı Ali Açıkgül	2007	Turkish	Ankara University, Ankara
2	218562	Unpublished master's thesis	Kredi kartı sözleşmeleri (Credit card agreements)	Özlem Kocaoğlu	2007	Turkish	Ankara University, Ankara
3	218701	Unpublished master's thesis	Kredi kartı sözleşmeleri (Credit card contracts)	Emel Kart	2008	Turkish	Selçuk University, Konya
4	240287	Unpublished master's thesis	Kredi kartı sözleşmesinde bankanın hak ve borçları/yükümlülükleri (Credit card contracts of the bank benefits and contributions.)	Rabiha Derya	2009	Turkish	Marmara University, İstanbul
Credit card usage							
No	Reg. No.	Type	Title	Author	Year	Language	University
1	32577	Unpublished master's thesis	Ailelerin kredi kartı kullanım uygulamaları (Credit card usage of families)	Serpil Gerçek	1994	Turkish	Hacettepe University, Ankara
2	107214	Unpublished master's thesis	Tüketici pazarı açısından kredi kartı kullanımı (Credit card usage in terms of consumer markets)	Selma Erdem	2001	Turkish	İstanbul University, İstanbul

Table 1 continued

3	113205	Unpublished master's thesis	Türkiye'de kredi kartı kullanım etkinliğinin artırılması ve kullanıcıların eğitiminin önemi (The Importance of activities of credit card using and users education in Turkey)	Nuray Sarıkaya	2002	Turkish	Gazi University, Ankara
4	166046	Unpublished master's thesis	Yaşam sürdürme analizi ve Cox oransal hazard regresyon modeli ile kredi kartı kullanımını etkileyen faktörlerin incelenmesi (Survival analysis and the investigation of cavaritates effecting the credit card usage by using Cox proportional hazard regression model)	Tuğçe Ün	2005	Turkish	Gazi University, Ankara
5	187382	Unpublished master's thesis	Kredi kartı kullanımını etkileyen sosyo-ekonomik faktörlerin analizi: Burdur ili örneği (An analysis of socio-economic factors effecting credit card usage: An axample of Burdur city)	Nilay Kükrer	2006	Turkish	Süleyman Demirel University, Isparta
6	215509	Unpublished master's thesis	Türkiye'de yıllara göre kredi kartı kullanım durumu ve batık kredi kart borç sahiplerinin profili (Credit card usage and the profile of credit card holders in debt according to years in Turkey)	Ozan Ceylan	2006	Turkish	İstanbul University, İstanbul
7	215430	Unpublished master's thesis	Tüketicilerin tüketim harcamaları, tüketici kredisi ve kredi kartı kullanım durumları (Consumption expenses of consumers, consumer credit and using attitudes of credit card)	Özlem Selimoğlu	2006	Turkish	Gazi University, Ankara

Table 1 continued

8	206922	Unpublished master's thesis	Ailelerin bireysel kredi ve kredi kartı kullanım durumunun incelenmesi (Examining the state of using the families personel creditand credit card)	Hümeyra Aksakal	2006	Turkish	Gazi University, Ankara
9	215123	Unpublished master's thesis	Kredi kartı kullanımını etkileyen etmenlerin istatistiksel analizi (Statistical analysis of the factors effecting the usage of the credit cards)	Gülçin Ceylan	2007	Turkish	Dumlupınar University, Kütahya
10	210079	Unpublished master's thesis	Kredi kartı kullanımında etkili olan faktörlerin çoklu uygunluk analizi ile incelenmesi (The examination of the factors effecting the usage of credit card by multiple correspondence analysis)	Duygu Çoşkun	2007	Turkish	Anadolu University, Eskişehir
11	207213	Unpublished master's thesis	Türkiye'de kredi kartı uygulaması ve kredi kartı kullanımının incelenmesi (Implementation of credit card in Turkey and analyzing credit card usage)	Nida Karabulut	2008	Turkish	Gazi University, Ankara
12	258311	Unpublished master's thesis	Behavioral influences in credit card usage and shopping attitudes: A survey (Kredi kartı kullanımı ve alışveriş tutumları üzerindeki davranışsal etkiler: Bir anket)	Esra Erdogan	2009	English	Marmara University, İstanbul
Credit card possession							
No	Reg. No.	Type	Title	Author	Year	Language	University
1	11605	Unpublished master's thesis	Tüketicilerin kredi kartı kabul kararı üzerine etki eden faktörler ve bir pilot araştırma (Factors influencing consumers' credit card acceptance decisions and a pilot research)	Ahmet K. Şekerkaya	1990	Turkish	İstanbul University, İstanbul

Table 1 continued

2	87606	Unpublished master's thesis	Kredi kartı sahipliğini etkileyen faktörlerin ekonometrik modellerle tespit edilmesi ve bir uygulama örneği (Determination of factors that effect the ownership of credit cards using econometric models and an application)	Hüseyin Atıcı	1999	Turkish	Gazi University, Ankara
3	125413	Unpublished master's thesis	Credit card possession in Turkey (Türkiye'de kredi kartı sahipliği)	İsmail Tanın Ayabakan	2002	English	Çankaya University, Ankara
4	190520	Unpublished master's thesis	Tüketici davranışlarının önemi ve Konya ilinde üniversite öğrencilerinin kredi kartı tercihlerinin araştırılması (The importants of consumer behavior and a study on university students credit card preferences in Konya)	Vedia Gökce Sinangil	2005	Turkish	Selçuk University, Konya
5	211163	Unpublished doctoral dissertation	Kredi kartları ve bireysel müşterilerin kredi kartı tercihinine etki eden faktörlerin belirlenmesi üzerine bir araştırma (A research on credit cards and on determining the factors effecting the preferences of the individual customers' credit cards)	Ferudun Kaya	2008	Turkish	Kadir Has University, İstanbul
6	227264	Unpublished master's thesis	Analitik hiyerarşi süreci ile kredi kartı taleplerinin değerlendirilmesi (Evaluation of credit card demands with analytic hierarchy process)	Agerti Galo	2008	Turkish	Dokuz Eylül University, İzmir

Table 1 continued

Implementations of credit card systems								
No	Reg. No.	Type	Title	Author	Year	Language	University	
1	54604	Unpublished master's thesis	Banka kredi kartı hizmetlerinin üye işyerleri ve kart hamilleri açısından değerlendirilmesi (Evaluation of bank credit card services in terms of member businesses and card holders)	Dilek Emir	1994	Turkish	Karadeniz Technical University, Trabzon	
2	74624	Unpublished master's thesis	Genel olarak kredi kartı sisteminin işleyişi ve Türkiye'nin dış alem kredi kartı gelirleri (The Working of credit card system in general and the foreign credit card revenues of Türkiye)	Emre Kağan Duman	1998	Turkish	Marmara University, İstanbul	
3	102314	Unpublished master's thesis	Kredi kartı işlemleri ve üye işyeri operasyonu (Anadolu kredi kartı uygulamaları) (Credit card processing and merchant operations (Anadolu kredi kartı applications))	Arzuhan Balcı	2000	Turkish	Marmara University, İstanbul	
4	126939	Unpublished master's thesis	Çevrimiçi çalışan bir kredi kartı işlem sistemi (Online credit card system)	Özgür Tabak	2002	Turkish	İstanbul Technical University, İstanbul	
5	131244	Unpublished master's thesis	Dershane ücretinin kredi kartıyla internetten ödenmesi ve sınav sonuçlarının internetten takip edilmesini sağlayan E-ticaret uygulaması (An Electronic commerce application which allows to pay course fees by using credit cards and to check exam results on internet)	Osman Boz	2003	Turkish	Anadolu University, Eskişehir	
6	147236	Unpublished master's thesis	Kredi kartı işlemlerinde üye işyeri operasyonu ile takas ve hesaplaşma sisteminin işleyişi (The member merchant operations in credit card transactions and the mechanis of clearing and settlement)	Nisa Kıymet Şahin	2004	Turkish	Kocaeli University, Kocaeli	

Table 1 continued

7	214960	Unpublished master's thesis	Kredi kartı tahsisi için puanlama modeli (Credit scoring for credit card allocation)	Esin Akansu	2006	Turkish	İstanbul University, İstanbul
8	233468	Unpublished master's thesis	Kredi kartı için yapay sinir ağları (YSA) uygulaması (Application of artificial neural networks for credit cards)	Yusuf Vural	2008	Turkish	Haliç University, İstanbul
Marketing of credit cards							
No	Reg. No.	Type	Title	Author	Year	Language	University
1	87246	Unpublished master's thesis	Bankalarda kredi kartı pazarlaması ve Bursa'da bir uygulama (Credit cards marketing in banks and research in Bursa)	Okay Civelek	1999	Turkish	Uludağ University, Bursa
2	106627	Unpublished master's thesis	Bireysel bankacılık sektöründe kredi kartı pazarlamasında tüketici profilinin risk açısından belirlenmesi (Consumer risk profiling in credit card marketing in retail banking)	Sultan Gül	2001	Turkish	Marmara University, İstanbul
3	189020	Unpublished master's thesis	Türkiye'de kredi kartı sunan bankalar ile Ankara ilinde yer alan turizm işletmeleri arasındaki pazarlama ortaklığının işletme performansı üzerindeki etkilerinin değerlendirilmesi (Evaluation influences on company performance of marketing alliances between credit card issuing banks in Turkey and tourism companies which established in Ankara)	Eda Rukiye Dönbak	2006	Turkish	Mersin University, Mersin

Table 1 continued

4	190838	Unpublished master's thesis	Hizmet pazarlamasında kredi kartı pazarlama süreci, kredi kartı kullanıcılarına yönelik araştırma (Credit card marketing process in service marketing, research of credit card users)	Gülnehal Akartepe	2006	Turkish	Gazi University, Ankara
Credit cards and consumer behaviors							
No	Reg. No.	Type	Title	Author	Year	Language	University
1	114465	Unpublished master's thesis	Tüketici tercihlerinin belirlenmesinde kullanılan konjoint analizi ve kredi kartı tipi tercihinine ilişkin bir uygulama (The Conjoint analysis in determination of the consumer's preference and an application to credit card's preference)	Fatih Çemrek	2001	Turkish	Osman Gazi University, Eskişehir
2	110407	Unpublished master's thesis	Une Etude du consumerisme global en Turquie: Les consequences socioculturels des cartes de credit sur les employes du secteur financier (Türkiye'de global tüketicilik üzerine bir çalışma; Kredi kartının finans sektörü çalışanlarına sosyokültürel etkileri)	Şafak Burçak Toktar Alkanlı	2002	French	Marmara University, İstanbul

Table 1 continued

3	135373	Unpublished master's thesis	Kredi kartı sahibi kişisel internet kullanıcılarının internet üzerinden alışveriş yapmama sebeplerinin tespiti (bir pilot araştırma) (Ascertaining the reasons why the credit card owner internet users do not shopping via internet (a pilot research))	Ümit Özdemir	2002	Turkish	İstanbul University, İstanbul
4	172809	Unpublished master's thesis	Marka farkındalığı ve kredi kartı sektöründe tüketiciler	Osman Ersin Özkan	2006	Turkish	Gazi University, Ankara
Credit card markets							
No	Reg. No.	Type	Title	Author	Year	Language	University
1	231939	Unpublished master's thesis	Essays on the competition and regulations in the Turkish credit card market (Türkiye'de kredi kartı pazarındaki rekabet ve yasal düzenlemeler üzerine denemeler)	Gazi Ishak Kara	2008	English	Boğaziçi University, İstanbul
2	257143	Unpublished master's thesis	Essays on a two-sided market: Credit card market in Turkey (Çift taraflı bir piyasa üzerine makaleler: Türkiye kredi kartı piyasası)	Gultekin Göllü	2009	English	Boğaziçi University, İstanbul

-B-

EXAMPLES OF STUDIES IN THE AREA OF INFORMAL LEARNING

Table 2.Examples of studies in the area of informal learning

No	Author (s)	Title of the study	Purpose of the study	Sample of the study	Data collection method(s)
1	Harrison, 1981	Informal learning among Yup'ik Eskimos: An ethnographic study of one Alaskan village	To identify and to describe aspects of contemporary Yup'ik Eskimo culture.	Yup'ik Eskimos in an Alaskan Village	Observation, document analyses
2	Rapaport, 1997	Women's informal learning experineces at work: Perspectives of support staff in an educational institution	To explore participants' perception of their day to day meaningful learning experiences at work in order to identify some common themes among them	10 women in an educational institution	In-depth interview
3	Gerber, 2001	Relationships among informal learning environments, teacher procedures and scientific reasoning ability	Investigated the impact of students' experiences in informal learning environments on science learning and/or skill development	1,178 students in 7th, 8th, 9th, and 10th grade	i) Survey (open and closed ended questions). ii) Knowledge test – constructed response items
4	Ash, 2003	Dialogic inquiry in life science conversations of family groups in a museum	Theory testing: application of theories of learning in informal contexts.	3 Families	Pre- and post-visit interviews; Video and/or audiotape of visits. Analysis of segments of talk.
5	Alcalde, 2005	The role of informal learning on engineering students teaming process	To explore the role of informal learning on the teaming process of engineering student teams	12 engineering students	Informal and formal interviews, video observations, and journals and reflective practice analysis

Table 2 continued

6	Altay, 2007	Informal Learning in the Workplace: A Case Study of Software Engineers in a Private Bank in Istanbul	To identify and analyze informal learning among workers in the workplace	15 software engineers working in a private bank	In-depth interview
7	Seçkin, 2008	Learning in the Kaz Mountains Environmental Social Movement	To explore adults' reasons for participating in the Kaz Mountains Environmental Social Movement, learning experiences of them in the movement and sources of these experiences, and changes that occur on adults due to participating in the movement	16 Kaz Mountains environmental social movement members	Interviews through semi-structured interview form developed by the researcher
8	Choi, 2009	Influences of Formal Learning, Personal Characteristics, and Work Environment Characteristics on Informal Learning among Middle Managers in the Korean Banking Sector	to investigate the influences of formal learning, personal characteristics, and work environment characteristics on informal learning among middle managers in the Korean banking sector	44 middle managers in the Korean banking sector	One questionnaire included questions regarding formal learning, personal characteristics, work environment characteristics, and demographic information. Another questionnaire included questions regarding informal learning
9	Digby, 2010	An Examination of the Impact of Non-formal and Informal Learning on Adult Environmental Knowledge, Attitudes, and Behaviors	(1) measure the environmental literacy of Minnesota adults, (2) explore possible relationships between Minnesota adults' environmental literacy variables and their demographic, non-formal and informal learning, and (3) determine the relative contribution of demographic and learning variables for predicting environmental knowledge, attitudes and behaviors	1,000 Minnesota Adults (18 years and older)	The survey data was collected by MarketLine interviewers using computer-aided telephone interviewing (CATI) system, which assisted in the consistency of interview protocol

LIST OF ORGANIZATIONS WHICH SUPPOSED TO PROVIDE NON-FORMAL
LEARNING OPPORTUNITIES ABOUT CREDIT CARDS

Table 3. Organizations which are supposed to provide non-formal learning opportunities about credit card knowledge

Official name of the institution	Web address
Citibank A.Ş.	http://www.citibank.com.tr
HSBC Bank A.Ş.	http://www.hsbc.com.tr
ING Bank A.Ş.	http://www.ingbank.com.tr
Fortis Bank A.Ş.	http://www.fortisbank.com.tr
Türkiye Cumhuriyeti Ziraat Bankası A.Ş.	http://www.ziraatbank.com.tr
Türkiye İş Bankası A.Ş.	http://www.isbank.com.tr
Yapı ve Kredi Bankası A.Ş.	http://www.yapikredi.com.tr
Akbank T.A.Ş.	http://www.akbank.com
The Banks Association of Turkey	http://www.tbb.org.tr
The Interbank Card Center	http://www.bkm.com.tr/
Banking Regulation and Supervision Agency	http://www.bddk.org.tr
Visa Europe	http://www.visa.com.tr
Mastercard	http://www.mastercard.com.tr

MESOPOTAMIAN INTEREST RATES

Table 4. Mesopotamian interest rates between 3000 and 400 B.C.

	<u>Normal Rates, %</u>		<u>Legal Maxima, %</u>	
	On grain	On silver	On grain	On silver
Sumer				
3000 - 1900	33⅓	20 - 25	--	--
Babylonia				
1900 - 732	20 - 33⅓	10 - 25	33⅓	20
732 - 625	33⅓	10 - 20	33⅓	20
625 - 539	? - 20	10 - 20	20	20
4 th - 5 th centuries		40(?)		
Assyria				
9 th - 10 th	30 - 50	20 - 40	--	--
Centuries				
Persia				--
6 th century	40	40	--	

Note. This table was adapted from Homer and Sylla, 1996, p. 31.

-E-

FIRST PART OF THE INSTRUMENT

A- DEMOGRAFİK BİLGİLER

1- Bölümünüz:

2- Doğum yılınız:

3- Cinsiyetiniz: () Kadın () Erkek

4- Medeni Durumunuz: () Evli () Bekar

5- Sınıfınız: () Hazırlık () 1 () 2 () 3 () 4 () 5

() Yüksek Lisans () Doktora

6- Çalışma Durumunuz: () Çalışmıyorum
() Tam zamanlı bir işte çalışıyorum
() Yarı zamanlı bir işte çalışıyorum
() Diğer (lütfen belirtiniz).....

B- MADDİ DURUM

7- Yaklaşık olarak aylık geliriniz ne kadardır?:..... TL

8- Aylık Gelirinizi hangi kaynaklardan elde ediyorsunuz?
(Birden fazla seçenek işaretleyebilirsiniz)

() İş () Birikimlerim () Eş/Arkadaş () Aile

() Burs () Diğer(lütfen belirtiniz).....

C- KREDİ KARTI BİLGİLERİ

9- Kendi adınıza düzenlenmiş kredi kartınız var mı?

() Evet

() Hayır (bu seçeneği işaretlediyseniz lütfen anketi sonlandırınız)

10- Kendi adınıza düzenlenmiş kaç adet kredi kartınız var? ()1 ()2 ()3 veya daha fazla

11- Kaç yıldır kendi adınıza düzenlenmiş kredi kartı kullanıyorsunuz?

12- Kredi kartı ödemelerinizin büyük kısmını kim karşılıyor?

() Kendim () Eş/Arkadaş () Aile () Diğer (lütfen belirtiniz).....

13- Genel olarak bir ay içinde yaptığınız harcamaların yaklaşık yüzde kaçını kredi kartı ile yapıyorsunuz?

%.....

14- Tüm kredi kartlarınızla ayda ortalama ne kadar harcama yapıyorsunuz?

..... TL

15- Son 12 ay içinde, kaç ay asgari (minimum) ödeme tutarının altında ödeme yaptınız? (Birden fazla kredi kartını varsa tüm kredi kartlarınızı düşününüz)

()ay

() Hiç asgari ödeme tutarının altında yatırdığım olmadı, hep asgari tutar veya üzerinde yatırıyorum

16- Son 12 ay içinde, kaç ay ekstrenizdeki tutarın tamamından az ama asgari tutardan fazla ödeme yaptınız? (Birden fazla kredi kartını varsa tüm kredi kartlarınızı düşününüz)

()ay

() Hiç, her zaman borcun tamamını ödedim

Tek kredi kartınız varsa onu, birden fazla kredi kartınız varsa bunlar arasında en çok kullandığınız kartı asıl kart olarak adlandıralım. 17.-20. Soruları asıl kartınızı düşünerek cevaplandırınız

17- Asıl kartınızın size veren bankanın ve kartın adını belirtiniz:

Bankanın adı:

Kartın adı:

18- Asıl kartınızın aylık alışveriş (akdi) faiz oranını biliyor musunuz?

() Evet Alışveriş (Akdi) Faiz Oranı % __ , __

() Hayır, bilmiyorum

19- Asıl kartınızın aylık gecikme faiz oranını biliyor musunuz?

() Evet Gecikme Faiz Oranı % __ , __

() Hayır, bilmiyorum

20- Asıl kartınızla 100 TL nakit avans çekseniz bir ay sonra yaklaşık ne kadar geri ödeme yapmanız gerekeceğini biliyor musunuz?

() TL olarak geri öderim

() Hayır, bilmiyorum

SECOND PART OF THE INSTRUMENT

KREDİ KARTI KULLANIM BİLGİSİ TESTİ –KISIM I

Lütfen her soru ile ilgili cevabınızı sorunun altında bulunan şıklardan birini seçerek işaretleyiniz. Eğer sorunun cevabını bilmiyorsanız “e” (bilmiyorum) şikkını işaretleyiniz

1- Aşağıdaki ifadelerden hangisi yanlıştır?

- a) Kredi kartının imza hanesinin kart hamili tarafından imzalanmış olması zorunludur.
- b) Bankalar talepte bulunmayan kişiler adına hiçbir şekil ve surette kart veremezler.
- c) Bankalar kartın verilmesi anında kart hamilini yeteri derecede bilgilendirmekle yükümlüdür.
- d) Kredi kartı kullanılmadığı takdirde bankalar kredi kartı üyelik ücreti (aidatı) talep edemez.
- e) Bilmiyorum

2- Bir kredi kartının limiti ile ilgili aşağıdaki ifadelerden hangisi doğrudur?

- a) Kredi kartı hamilinin belgelenebilir gelirinde bir artış olduğu zaman banka tarafından artırılabilir.
- b) Kredi kartı hamili talep ederse banka tarafından artırılabilir.
- c) Borcunun tamamını düzenli olarak ödeyen kart hamillerinin kart limitleri banka tarafından ödül amaçlı artırılabilir.
- d) Kredi kartı hamilinin borç ödemelerindeki düzene göre eski limitin iki katını aşmayacak şekilde banka tarafından artırılabilir.
- e) Bilmiyorum

3- Yaptığınız harcamalarla kredi kartınızın limitini aşmanız halinde limiti aşan miktara işlem tarihi ile ödeme tarihi arasındaki süre için talep edilecek ücret aşağıdakilerden hangisidir?

- a) Gecikme faizi
- b) Nakit avans faizi
- c) Limiti aşan miktar üzerinden banka tarafından belirlenen sabit bir ücret
- d) Akdi faiz
- e) Bilmiyorum

4- Kredi kartı ile yapılan işlemlere, son ödeme tarihinden itibaren kaç gün içinde kart çıkaran kuruluşa başvurmak suretiyle itiraz edebilir?

- a) gün
- b) Bilmiyorum

5- Kartın çalınması veya kaybolması halinde kart hamili, yapacağı bildirimden önceki yirmi dört saat içinde gerçekleşen hukuka aykırı kullanımdan doğan zararlarla ilgili olarak

- a) Zararların tamamından sorumludur
- b) Yüzelli TL ile sınırlı olmak üzere sorumludur
- c) Kart limitinin yarısı ile sınırlı olmak üzere sorumludur.
- d) Hukuka aykırı kullanım olduğu için sorumlu değildir.
- e) Bilmiyorum

6- Kredi kartı hamilinin şifre ile işlem yaptığı bir işyerinde, işyeri tarafından kredi kartı sahibinin kimlik belgesi göstermesi talep edildiğinde kredi kartı hamili

- a) Kredi kartının şifresini bildiği için kimlik belgesi göstermek zorunda değildir
- b) 1000 TL 'yi aşan harcamalarda istenildiği takdirde kimlik göstermek zorundadır
- c) Kimlik göstermek zorundadır
- d) Kartın şifresi yanlış girilirse kimlik göstermek zorundadır.
- e) Bilmiyorum

7- Kredi kartına uygulanacak akdi ve gecikme faiz oranlarını aşağıdakilerden hangisi veya hangileri belirler?

- a) Kart çıkaran kuruluş (banka)
- b) Visa ve Mastercard firmaları
- c) Türkiye Cumhuriyeti Merkez Bankası
- d) Bankalar arası düzenleme ve denetleme kurulu
- e) Bilmiyorum

8- Sözleşmede belirtilen asgari ödeme tutarı dönem borcunun en az yüzde kaç olabilir?

- a) %.....
- b) Bilmiyorum

9- Kart hamili ne zaman kredi kartını iptal ettirip sözleşmesini feshedebilir?

- a) Kartın tüm borçlarını ödedikten sonra
- b) Kartın geçerlilik tarihi sona erdikten sonra
- c) Talep ettiği her zaman
- d) Kredi kartı sözleşmesi iki taraflı imzalandığı için talep ettiği zaman bankanın kabul etmesi halinde
- e) Bilmiyorum

10- Dönem borcunun bir kısmının ödendiği durumlarda, yapılan ödeme asgari ödeme tutarının altında ise üzerinden uygulanır;

- a) kalan hesap bakiyesi – gecikme faizi
- b) Dönem borcunun tamamı – akdi faiz
- c) kalan hesap bakiyesi – akdi faiz
- d) Dönem borcunun tamamı – gecikme faizi
- e) Bilmiyorum

11- Dönem borcunun bir kısmının ödendiği durumlarda, yapılan ödeme asgari ödeme tutarı veya üzerinde ise üzerinden uygulanır

- a) kalan hesap bakiyesi – gecikme faizi
- b) Dönem borcunun tamamı – akdi faiz
- c) kalan hesap bakiyesi – akdi faiz
- d) Dönem borcunun tamamı – gecikme faizi
- e) Bilmiyorum

KREDİ KARTI KULLANIM BİLGİSİ TESTİ –KISIM II

Aşağıda kredi kartı kullanımı ile ilgili on bir adet ifade bulunmaktadır. Lütfen her ifadeyi dikkatlice okuyarak ifadenin hemen yan tarafındaki seçeneklerden

D: doğru

Y: Yanlış

B: bilmiyorum

sadece bir tanesini işaretleyerek ifade hakkındaki görüşünüzü belirtiniz.

1-	Kredi kartı borçlarında bileşik faiz uygulanamaz	D	Y	B
2-	Bir kredi kartının iptal edilebilmesi için borcunun tamamının ödemesi gereklidir	D	Y	B
3-	200 TL’lik dönem borcunun 150 TL’sinin son ödeme tarihinden önce ödenmesi durumunda kalan 50 TL üzerinden akdi faiz uygulanır	D	Y	B
4-	Kredi kartı hesap özetinde yanlışlık bulunuyorsa bir sonraki ayın son ödeme gününe kadar itiraz edilebilir	D	Y	B
5-	Kredi kartı sözleşmelerindeki değişiklikler kart hamiline hesap özeti ile bildirilir	D	Y	B
6-	Asgari ödeme tutarı dönem borcunun en az % 10’udur	D	Y	B
7-	Dönem borcunun bir kısmının ödenmesi durumunda uygulanacak olan faiz borcun tamamı üzerinden hesaplanır	D	Y	B
8-	Nakit avans kullanımında faizin işlemeye başladığı tarih nakdin çekildiği tarihtir	D	Y	B
9, 10 ve 11 soruları aşağıdaki metine göre cevaplandırınız:				
Berk ile Levent’in kredi kartlarının faiz oranları ve ücretleri aynıdır. Her ikisi de kredi kartlarıyla on ay boyunca aylık 100 TL alışveriş yapmıştır. Berk her ay borcunun tamamını ödemiş, Levent ise yarısını ödemiştir. Her ikisi de ödemelerini son ödeme tarihinden önce yapmıştır. Buna göre on ay sonunda				
9-	Levent hiç faiz ödememiştir	D	Y	B

10-	Berk ve Levent faizler dahil toplam 1000 TL ödemiştir	D	Y	B
11-	Levent Berk'ten fazla faiz ödemiştir	D	Y	B

-G-

THIRD PART OF THE INSTRUMENT

GÖRÜŞME SORULARI

1-) Kredi kartı kullanımı ile ilgili bir eğitim aldınız mı? (seminer, okulda, bir dernekte..vb)?

Aldıysanız

ne zaman:

Eğitimi kim verdi: (Kurum adı)

Eğitimin içeriğinde neler vardı?

2) Kullandığınız kredi kartınız veya kartlarınızla ilgili bilgileri (örneğin kredi kartınızın faiz oranları, sözleşme hükümleri, hesap kesim tarihi, yıllık kart aidatı) nasıl ya da hangi yollarla öğrendiniz?

2-a) SAYILAN MADDELERİ HATIRLATTIKTAN SONRA SOR: Peki bunların dışında aklınıza gelen başka bir öğrenme yolu var mı?

2-b) Bu saydıklarınızın içinde (GEREKİRSE HATIRLAT) sizce en önemli olanları hangileridir? (En çok hangilerinden öğrendiniz)

2-c) Bu bahsettiğiniz yollarla hangi bilgileri öğrendiniz kısaca bahsedebilir misiniz?

3) Kredi kartı kullanımı konusunda kullanıcıların dikkat etmesi gereken bazı önemli konular vardır (örneğin, faiz uygulamaları, ceza uygulamaları, kartın kaybolması veya çalınması durumunda yapılması gerekenler, kartın iptal edilmesi veya asgari ödeme tutarı gibi), bu konular hakkında bildiklerinizi nasıl (hangi yollarla) öğrendiniz?

3-a) SAYILAN MADDELERİ HATIRLATTIKTAN SONRA SOR: Bunların dışında aklınıza gelen başka bir öğrenme yolu var mı?

3-b) Bu saydıklarınızın içinde (GEREKİRSE HATIRLAT) sizce en önemli olanları hangileridir? (En çok hangilerinden öğrendiniz)

3-c) Bu bahsettiğiniz yollarla hangi bilgileri öğrendiniz kısaca bahsedebilir misiniz?

4) Kredi kartınızla ilgili yaşadığınız bir sorun veya sorunlar sizin kredi kartınızla veya kullanımıyla ilgili bilgileri araştırmanıza neden oldu mu? Açıklar mısınız (örneğin kredi kartının iptal edilmesinde zorluk yaşamışsınızdır konu ile ilgili araştırma yapmışsınızdır; ödeme ile ilgili bir sorun sonrası faiz uygulamaları hakkında bilgi edinmişsinizdir)

5) Ailenizde veya yakın çevrenizde kredi kartı kullanımı ile ilgili sorun yaşayan kimseler oldu mu? Oldu ise kimler?

5-a) Bu kişilerin yaşadıkları sorunlar, sizin kredi kartı kullanımı ile ilgili davranışlarınızı nasıl etkiledi. Örneğin kredi kartı kullanımı konusunda bilmedikleriniz sizi araştırmaya itti mi (evet ise hangi konularda açıklanacak)?

5-b) Bu kişiler size kredi kartı kullanımı konusunda uyarılarda bulundular mı? Bu uyarılardan öğrendikleriniz oldu mu (evet ise hangi konularda açıklanacak)?

-H-

OPERATIONALIZATION OF THE SURVEY ITEMS

Table 5. Personal Credit Card Information and payment Practices

Item number	Part of operational definition of credit card literacy	Content of the item	Resource of the item
12	Credit card payment practices	Who pays for the credit cards	-
13	Credit card payment practices	Monthly credit card purchases	-
14	Credit card payment practices	Monthly credit card purchases	-
15	Credit card payment practices	Number of payments under minimum payment amount	-
16	Credit card payment practices	Number of payments equal to or over minimum payment amount but under total amount	-
17	Personal credit card features	Name of the card	Banking Regulation and Supervision Agency
18	Personal credit card features	Conventional interest rate	Banking Regulation and Supervision Agency
19	Personal credit card features	Default interest rate	Banking Regulation and Supervision Agency
20	Personal credit card features	Payment calculation of 100.-TL cash advance for 30 days	Banking Regulation and Supervision Agency

Table 6. Credit Card Knowledge Test Section I

Item number	Part of operational definition of credit card literacy	Content of the item	Source of the item
1	Key credit card concepts: annual fee, acceptance and use of credit cards.	Finding the false statement among 4 choices	Bank Cards and Credit Cards Law (No.5464): Article 8, 13 and 15. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 17 (2) a; Article 21 (1); Article 19 (1) ı
2	Key credit card concepts: limit issues	Finding true statement about credit card limit applications	Bank Cards and Credit Cards Law (No.5464): Article 9. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 22 (2); Article 17 (5) b
3	Key credit card concepts: limit issues	Finding the fee when exceeding credit card limit	Bank Cards and Credit Cards Law (No.5464): Article 9
4	Key credit card concepts: objections to monthly statements	Writing credit card statement objection period	Bank Cards and Credit Cards Law (No.5464): Article 11
5	Key credit card concepts: unlawful use of credit cards	Finding responsibility of the card holder in case of lost or fraud	Bank Cards and Credit Cards Law (No.5464): Article 12. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 23 (1)
6	Key credit card concepts: Security and credit card use	Finding when ID card is shown	Bank Cards and Credit Cards Law (No.5464): Article 15
7	Key credit card concepts: Interest applications	Finding sources of interest rates' decisions	Bank Cards and Credit Cards Law (No.5464): Article 26. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 17 (5) c.
8	Key credit card concepts: Payment issues	Writing credit card monthly minimum payment rate	Bank Cards and Credit Cards Law (No.5464): Article 24. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 17 (5) h.

Table 6 continued

9	Key credit card concepts: Contracts	Finding when a contact cancellation occurs	Bank Cards and Credit Cards Law (No.5464): Article 25. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 18 (2)
10	Key credit card concepts: Interest applications	Finding right default interest application	Bank Cards and Credit Cards Law (No.5464): Article 26. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 20 (3)
11	Key credit card concepts: Interest applications	Finding right conventional interest application	Bank Cards and Credit Cards Law (No.5464): Article 26. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 20 (3)

Table 7. Credit Card Knowledge Test Section II

Item number	Part of operational definition of credit card literacy	Content of the item	Source of the item
1	Key credit card concepts: Interest applications	Application of compound interest	Bank Cards and Credit Cards Law (No.5464): Article 26. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 20 (3)
2	Key credit card concepts: Contracts	Credit card cancellation	Bank Cards and Credit Cards Law (No.5464): Article 25. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 18 (2)
3	Key credit card concepts: Interest applications	Application of conventional interest	Bank Cards and Credit Cards Law (No.5464): Article 26. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 20 (3)

Table 7 continued

4	Key credit card concepts: objections to monthly statements	Application period of objection	Bank Cards and Credit Cards Law (No.5464): Article 11.
5	Key credit card concepts: Contracts	Contract modifications	Bank Cards and Credit Cards Law (No.5464): Article 25. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 18 (1)
6	Key credit card concepts: Repayment issues	Minimum monthly payment	Bank Cards and Credit Cards Law (No.5464): Article 24. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 17 (5) h.
7	Key credit card concepts: Interest applications	Interest calculation	Bank Cards and Credit Cards Law (No.5464): Article 26. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 20 (3)
8	Key credit card concepts: Interest applications	Cash advance interest principles	Bank Cards and Credit Cards Law (No.5464): Article 26. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 20 (25)
9	Key credit card concepts: Interest applications	Case analysis	Bank Cards and Credit Cards Law (No.5464): Article 26. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 20.
10	Key credit card concepts: Interest applications	Case analysis	Bank Cards and Credit Cards Law (No.5464): Article 26. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 20.
11	Key credit card concepts: Interest applications	Case analysis	Bank Cards and Credit Cards Law (No.5464): Article 26. <i>Regulation on Bank Cards and Credit Cards</i> (Official Gazette 03.10.2007/26458): Article 20.

Table 8. Interview Questions

Item number	Type of learning experience	Content of the item	Source of the item
1	Formal and non-formal	Formal and non-formal learning opportunities about credit cards	Definitions of formal and non-formal learning
2	Formal, non-formal and informal	Formal, non-formal and informal learning opportunities about personal credit cards	Definitions of formal, non-formal and informal learning
3	Formal, non-formal and informal	Formal, non-formal and informal learning opportunities about credit cards	Definitions of formal, non-formal and informal learning
4	Informal learning	Informal learning opportunities about credit cards	Forms of informal learning (learning from experience)
5	Informal learning	Informal learning opportunities about credit cards	Forms of informal learning (learning from others)

-I-

ANSWER KEY TO CCKT

Section I

Item number	Answer
1	D
2	B
3	D
4	10
5	B
6	C
7	A and/or C
8	20
9	C
10	A
11	C

Section II

Item number	Answer
1	D
2	Y
3	D
4	Y
5	D
6	Y
7	Y
8	D
9	Y
10	Y
11	D

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