Mediator Effect of Factors Affecting Credit Card Preference on The Effect of Consumers' Personality Traits on Monthly Credit Card Usage Frequency

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ARTICLE INFO	ABSTRACT
	Purpose – The point of the study is to examine the relationship between the personal characteristics of bank retail customers and the factors that may affect their credit card alternatives via the frequency of usage of such credit cards. **Design/methodology/approach** – This study falls within the scope of correlational research model in this respect. The correlational research approach provides for the clarification of the relationship between variables as well as the prediction of the findings. This study's sampling is based on 610 bank retail customers who had access to credit lines defined using easily available sampling methodologies. The research findings are produced using the following criteria: (1) personality inventory as the primary factor, (2) frequency of credit card usage each month, and (3) factors that influence credit card preference. The total score for each criterion is established by the criteria applicable to subsequent factor analysis that were developed in line with the data that fell within the scope of this study. **Findings** – As a result, the total scores were computed first. The skewness and kurtosis coefficients were calculated to determine whether or not such derived scores were distributed smoothly. The structural equation model was used to establish how the variables were clarified through the criteria used in credit card preference and customer behaviour based on the frequency of credit card use. According to the findings, when the factors impacting credit card preference that are based on the personal characteristics of retail customers are applied, the structural equation model used to establish for the instances that may have an influence on the frequency of credit card usage is substantiated. **Discussion** – In principle, when the studies are analyzed, the relevance of a complex but holistic research setting that incorporates not only an overall scanning of the customers' psychologies but also future scenarios comes to the forefront in conformity with the results of this study.

1. Introduction

This study has both theoretical and practical contributions. The first theoretical contribution of the study was that personal characteristics that have an attribute to the credit card preference were examined within the scope of the study and based on the factors that have an impact on the intentions of the use of credit cards by the consumers, such personal characteristics will help the banks in reaching to a decision for the ways to a lot their resoources and preserve and expand their customer portfolio by promoting to be use of credit cards in making payments and possessing credit cards for use in the payments to be made against the goods and services that are to be provided by the banks for the customers to make the best choice of credit cards. Furthermore, they will guide banks in making plans for the mitigation of risks that are prioritized depending on the payment cabilities of their customers through credit cards. Bank credit card limits, as well as ubiquitous applications, will integrate both the psychological structure of the person and the social structure of societies, and will have an influence on the academic research platform.

As a consequence of Norman's study, the characteristics of individual personalities are categorised into five dimensions by the mid-twentieth century: Norman provided such a categorization under the heading "appropriate classification of character traits" (Apple, 2011; Yoon, 1997; Oğuz, 2007, p. 37). Although there is no unanimity in this context, the following traits can be listed: (1) introversion/extroversion, (2) self-control-directionlessness, (3) development openness-immaturity, (4) docility-acrimony, and (5) compatibleness. These five personality modeling factors are built on five comprehensive and widely accepted evidences: (1) power and effect in exposing behavioral molds, (2) personal characteristics in any form of character system, (3)

demographical attributes such as age, gender, ethnicity, and language, and (4) biological characteristics of the five factors (Costa and McCrae, 1980). Such evidences are as follows:

Almost all banking and financial systems employ a dynamic framework. As a result, it is critical to make assessments in light of the historical process. The "Bozetto," which was formed in Sumerian Civilization about 3500 B.C., was thought to be the first financial model. The reputable Hammurabi Rules of Babylonia allude to the lending, debt collecting, and liquidation procedures carried out by temple administrators. Another significant milestone in the history of banking is the funding of wars. The Bank of England, which was founded in London in 1694, conducted activities despite the fact that neither of the two parties involved had an account (Aykent, 1970, p. 18; Ferguson, 2008; Öçal and Çolak, 1988). Since history, the negotiations initiated by the European Union and Turkey on December 17, 2004 have accelerated the inflow of foreign funds, and favourable trends in financial markets have been observed (Apak, 2006, p. 28). The measures taken by the Turkish banking sector ahead to the impending crises have provided protection from the negative impacts (Afşar, 2011, p. 155-164).

Credit cards are the instruments of choice for many clients in numerous transactions. These replaced checks, which were formerly used as a form of payment. The credit card was introduced in the United States and quickly spread to other countries (Baydemir, 2004, p. 87; Yılmaz, 2000). The simplest and most important aspect of credit cards is that they provide credit for the purchase of goods and services (Michael, 1994; Torlak, 2002). The credit card system is trilateral, with the bank or financial institution, the credit card holder, and the card acceptor all involved (Çırpan, 2000, p. 56; Kızılot, Kılıç and Tokatlıoğlu, 2014). There are no credit cards produced in Turkey that are used in other countries. The system issues credit cards, the licensed rights to which are held by institutions in countries other than our own, but which are all accepted worldwide (Çoroğlu, 2015). Only the Dinners Club, issued by Servis Turistik A.Ş., a Koç Group subsidiary, was the very first credit card issued in our country. Diners Club credit card was introduced to the market in 1968. (Interbank Card Centre, 1997).

The card holders who wish to withdraw cash may conclude such transactions at any ATM abroad through any bank with which an agreement was reached against any commission and charge (Teoman, 1996; Yılmaz, 2006). The statement of account, which is issued on a predefined time basis and received by cardholders, allows monthly instalment of expenditures provided that the minimum amount of payment is made (Çırpan, 2000; Kaya, 2009; Sümer and Onan, 2016).

Customers' intentions to use credit cards were analysed, and it was reported that they were affected by the perceived risks (psychological, financial, performance, privacy, time, social, and security risks), it encourages people to use credit cards. (Nam Trinh, Ha Tran, Vuong 2020).

2. Requirements for a study and objectives

Due to the increasingly growing risk of pandemic, most people have started using credit cards to avoid infections through cash in circulation. Customers' perceptions regarding credit cards develop to be positive for this reason, as well as other similar ones, and such favourable perceptions allow financial institutions to convert the crisis into an opportunity (Afşar, 2011; Apple, 2011; Bellamy, 1888; Öçal and Çolak, 1988; Yazgan İnanç and Yerlikaya, 2010). The increased use of credit cards observed in comparison to the past (Interbank Card Centre) necessitated the execution of a study to ascertain the situation. Likewise, the character traits that have an impact on the use of credit cards by customers (Çırpan, 2000; Sümer and Onan, 2016; Yoon, 1997) in the new era, attitudes against such payment methods, and the availability of information concerning the impacting factors and frequency of use (Eren, 2004; Kızılot, Kılıç and Tokatlolu, 2014; Oğuz, 2007, Ylmaz, 2006) should be accessed by the departments of retail products of banks. In this context, the relationship between retail bank customers' personal characteristics and the factors that impact credit card options is developed in order to seek empirical answers to the following questions for determining the frequency of credit card use:

1. When the personal characteristics of bank retail customers are listed among the factors which influence credit card choice, what effect does it have on the frequency of credit card use on a monthly basis?

2. When the personal characteristics of bank retail customers are listed among the factors which influence credit card choice, what direct and indirect effects does it have on the frequency of credit card use on a monthly basis ?

3. What are the direct consequences of customers' personal characteristics on the factors that impact their choice for credit card use?

3. Method

3.1. Research Model

The objective of the research is to establish a relationship between the factors that may have an impact on bank retail customers' credit card preferences and the frequency with which they use credit cards on a monthly basis. The study is in the form of correlational research in the perspective of this objective. The correlational research method allows for the identification of relationships between variables and the prediction of outcomes (Fraenkel, Wallen and Hyun, 2012). It is intended to construct structural equation modelling in order to analyse the predictor relationship within the framework of the correlational research approach. Thus, structural equation modelling is developed and tested for the relationship amongst variables in order to determine such a relationship and its level of impaction.
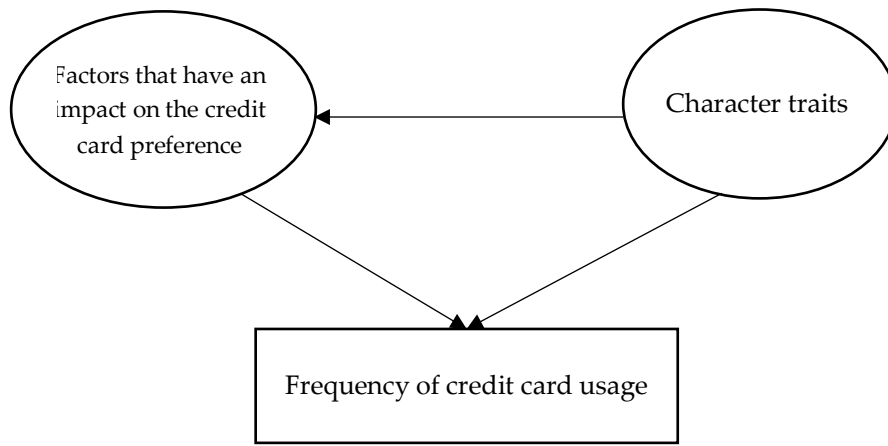

Figure 1. Figure showing the objective context of the study

3.2. Population and Sampling

Credit card users from participation bank branches in the province of Ankara in the first and second quarters of the year 2020 comprise the population that meets the objectives of this study. (the first six-month period). Although there exist no statistical data for the number of individuals involved, the transaction made within the first and second periods of 2020 amounts to TRY 1.988.744.284 according to the statistics announced by BKM (https://bkm.com.tr/yerli-kredi-kartlarinin-yurt-ici-kullanimi/). In terms of the population included in the study, the number of samples was designed in such a manner that a confidence interval of 95 percent and an error margin of 0.05 were taken into account. According to the method used to calculate the magnitude of the sample (Büyüköztürk et al., 2018), at least 384 persons will have the ability to represent the population if the population is 100 million people. Within the scope of this study, 610 credit card users were contacted. It has been validated that the number of persons involved represents the population with a 95% accuracy. The study sampled 610 retail bank customers who used credit as a readily accessible sampling method. The easily accessible sample strategy is one that is applied to readily available persons who choose to participate in the study (volunteers) in the vicinity if not within any specific location (Erkuş, 2013, p. 122). The demographic features of the 610 individuals are shown in Table 1.

Table 1. Frequency and Percentage Distribution of the Retail Bank Customers for Demographic Features

	Categories	*F*	%
Gender	Male	311	51,0
	Female	299	49,0
Marital Status	Married	389	63,8
	Single	221	36,2
Age	Aged 8 and younger	117	19,2
	Aged 29 and 32	179	29,3
	Aged 33 and 36	98	16,1
	Aged 37and 40	91	14,9
	Aged 41 and older	125	20,5
Level of Education	Secondary School and less	58	9,5
	High School	60	9,8
	Associate Degree	86	14,1
	Bachelor of Science Degree	244	40,0
	Master of Arts Degree	108	17,7
	Doctorate Degree	54	8,9
Occupation	Government Officer	259	42,5
	Worker	82	13,4
	Self-Employed	119	19,5
	Retired	54	8,9
	Student	47	7,7
	Housewife	49	8,0
Individual Income per month	2324 ₺ and less	96	15,7
	2325 ₺ and 4649 ₺	222	36,4
	4650 ₺ and 6974 ₺	162	26,6
	6975 ₺ and more	130	21,3
Monthly Household Income	4500 ₺ and less	129	21,1
	4501 ₺ and 6900 ₺	137	22,5
	6901 ₺ and 9300 ₺	161	26,4
	9301 ₺ and more	183	30,0
Total		610	100,0

3.3. Data Collection Instruments

The study's data was collected using the following criteria: (1) personality traits with five variables, (2) frequency of credit card usage, and (3) factors that affect credit card preference. The study's objective was to identify retail consumers' credit card usage behaviours at participation bank branches in Ankara. To ensure validity and reliability, the sample group and scaling factor were established. The following data collection instruments are listed in the order of their psychometric features.

(1) Character Assessment Using Five Factors Rammstedt and John's (2007) 10 - item inventory for assessing individual personality characteristics was translated into Turkish by Horzum, Ayas, and Padır (2017). The inventory was translated into Turkish with language availability and the original inventory in English were used on 31 people, while it was observed that 10-item inventory scale varies between 0.71 and 0.91 as a result of inventory congruence in the correlation analysis. As with the original inventory, the variation specified in the inventory with 5 factors and 10 items accounts for 88.4% of the total variance. The fit index values validating factor analysis of the inventory were found to be excellent and within the range of permissible fit index values. The Cronbach Alpha safety coefficient for the inventory's sub-factors was found to be more than 0.70.

(2) Inventory **to discover how frequently credit cards are used.** The duration, frequency of usage, sequences, and frequencies of intervals set by the researchers, as well as time intervals mentioned in the literature and studies, are all documented in the research's contents. Furthermore, the frequencies of credit card use have

been described and developed into a measuring instrument, which may serve as the study's independent variable in light of theoretical understanding about consumer psychology and credit card usage. In line with this, an inventory that includes the monthly frequency of credit card usage, monthly internet shopping through credit card, monthly face-to-face shopping via credit card, and weekly frequency of credit card usage has been developed.

(3) The Scale Impacting on Credit Card Preference Kaya (2008) produced a scale that dealt with 35 items and 11 factors by eliminating 7 items from 42 items, revealing 61,96% of the total variance. The remaining items theoretically justify sufficient variations, and the statistical significance of the pyschometric features has been satisfied in a trustworthy and verified way, therefore seven items were left out. In the meanwhile, the overall inventory's Cronbach Alpha safety value is 0.84. The first factor under the heading "The Bank's Qualifications" has a safety coefficient of 0.76 and accounts for 16,49 percent of the total variation. The second factor, "Financial Power and Opportunities," has a safety coefficient of 0.76 and a variance clarification of 7.48. The third factor, titled "Distribution," has a safety coefficient of 0.70 and accounts for 6.80% of the total variation. The fourth factor, "Direct Marketing," has a safety coefficient of 0.71 and accounts for 5,05% of the total variance. The fifth factor, "Customer Relationship Management," has a safety coefficient of 0.63 and describes 4,67% of the overall variation. The sixth factor titled "Price," has a safety coefficient of 0.69 and describes 4,39 percent of the total variance. The seventh factor, titled "Integrated Marketing Communication," has a safety coefficient of 0.54 and accounts for 4,22% of total variance. The eighth factor, "Bank Capital Structure," has a safety coefficient of 0.57 and accounts for 3,68 percent of the total variance. The ninth factor, labeled "Sales Promotions," has a safety coefficient of 0.75 and represents 3,19% of total variance. The tenth factor, "Public Relations," has a safety coefficient of 0.68 and is accountable for 3.1% of the total variance. Since there are two items under the title "Process Management," the load values of the eleventh factor had to be checked, and it was discovered that it explains 2,86 percent of the total variance.

The validation efforts have been exerted using new samples to achieve updated validation and dependable outcomes using the data set, according to the predefined scales (1) big five personality inventory, (2) frequency of credit card usage, and (3) variables that affect credit card preference. When the fit index values for the measurement model produced for the verification of the scales' structure are evaluated, the values corresponding to such scales are 1,09, 4,45, and 4,74 in view of 2/ (df) (Byrne, 2013). When the RMSEA TLI/NNFI, AGFI, GFI, CFI, and NFI values are examined, it is discovered that there is already a perfect match with at least acceptable indices (Schermelleh-Engel, Moosbrugger, and Müller, 2003, p. 2). In general, the model is confirmed when the fit index values of the measurement model for the overall scales are evaluated in accordance with the data acquired from participants.

3.4. Data Analysis

The data gleaned from the customers who took part in the study was first entered into the SPSS 25.0 program. Following the removal of missing data from the data set, the scores obtained by customers from the scales were computed. The total scores for each scale are defined by inventories after factor analysis is performed on the data collected within the scope of the study. As a result, the total scores are computed in the first priority. The skewness and kurtosis coefficients are calculated to assess if such calculated scores have a normal distribution. The computed values fall within the range of ±2. This underlines the fact that the data has a normal distribution. For the purpose of analyzing the outlier, z statistics were used, and it was determined that the z values were in the ± 3 range, with no outlier (Büyüköztürk et al., 2018). The Mahalanabis distance was calculated to examine the multivariable outliers, and the study included 610 pieces of data.

The structural equation model is used to identify the extent to which the factors that impact credit card preference, as well as credit card usage behavior and frequency of use by customers, reflect personality traits. Before establishing the structural equation model, the measuring models were tested for total scores in each scale, and when the fit index values assigned to the measuring models were examined, the model that failed to produce in the context of dimensions was established based on the total scores that were all verified. The AMOS -21 program was used to perform structural equation modeling analysis. The criteria defined by Schermelleh-Engel, Moosbrugger, and Müller'in (2003) and Byrne (2013) were employed to check the fit indices obtained through the structural equation modeling established following the analysis. The Pearson correlation coefficient was calculated to identify the relationships between the personality traits of bank retail

customers, factors that may impact credit card preference, and the frequency of monthly credit card use. The findings were primarily tabulated or shown in figures and hence analyzed.

4. Findings and Discussion

The systematic of the study's sub-objectives aims to present the findings in this section. In accordance with this, this section will proceed with the findings obtained from the credit card users who are retail customers of the participating banks' branches in the province of Ankara.

Table 2. Correlation Analysis Results for the Relationship between Customers' Personality Traits and Factors Affecting Credit Card Preference, as well as the Frequency of Monthly Credit Card Usage

N=610		Scale for the Factors Affecting the Credit Card Preference	Big Five Inventory
Frequency of Monthly Credit Card Usage	r	-0,63[*]	-0,59[*]
	p	,000	,000
Frequency of Monthly Shopping Via Net Using Credit Card	r	-0,43[*]	-0,36[*]
	p	,000	,000
Frequency Monthly Face-to-Face Shopping	r	-0,39[*]	-0,38[*]
	p	,000	,000
Frequency of Weekly Credit Card Usage	r	-0,36[*]	-0,30[*]
	p	,000	,000

[*]$p < ,05$

When Table 2 was examined, it was found that there was a moderately significant relationship between the scores related to the factors that impact the credit card preference of the banks' retail customers and the frequency of monthly credit card use in a negative manner, according to $r = -0,63$, $p = ,000,05$. According to $r = -0,43$, $p = 0.000,05$, there was a moderately significant negative relationship between the scores related to the factors that impact the credit card preference of the banks' retail customers and the monthly frequency of credit card usage in online shopping. It was found out that there was close significant relationship between the scores related to the factors that impact the credit card preference of the banks' retail customers and monthly frequency of the use of credit cards in face-to-face shopping according to $r = -0,39$, $p = ,000 < ,05$. According to $r = -0,36$, $p = ,000,05$, there is a fairly significant negative relationship between the scores related to the factors that influence the credit card preference of the banks' retail customers and the weekly frequency of credit card usage. The table illustrates that the higher the frequency of credit card spending on a monthly basis, the lower the credit card behaviors and preferences are.

According to $r = -0,59$, $p = ,000,05$, there is a statistically significant negative relationship between the personality traits of the banks' retail customers and the monthly frequency of credit card usage. According to $r = -0,36$, $p = ,000,05$, there is a fairly significant negative relationship between the personality traits of the banks' retail customers and the monthly frequency of the use of credit cards in online shopping. Those who use credit cards for internet purchasing use their cards far more frequently than those who do not use credit cards online. According to $r = -0,38$, $p = ,000,05$, there is a very tight significantly negative relationship between the scores assigned to the personality qualities of the banks' retail customers and the monthly frequency of the use of credit cards during face-to-face shopping. According to $r = -0,30$, $p = ,000,05$, there is a low level negatively significant relationship between the personality traits of the banks' retail customers and the weekly frequency of use of the credit cards.
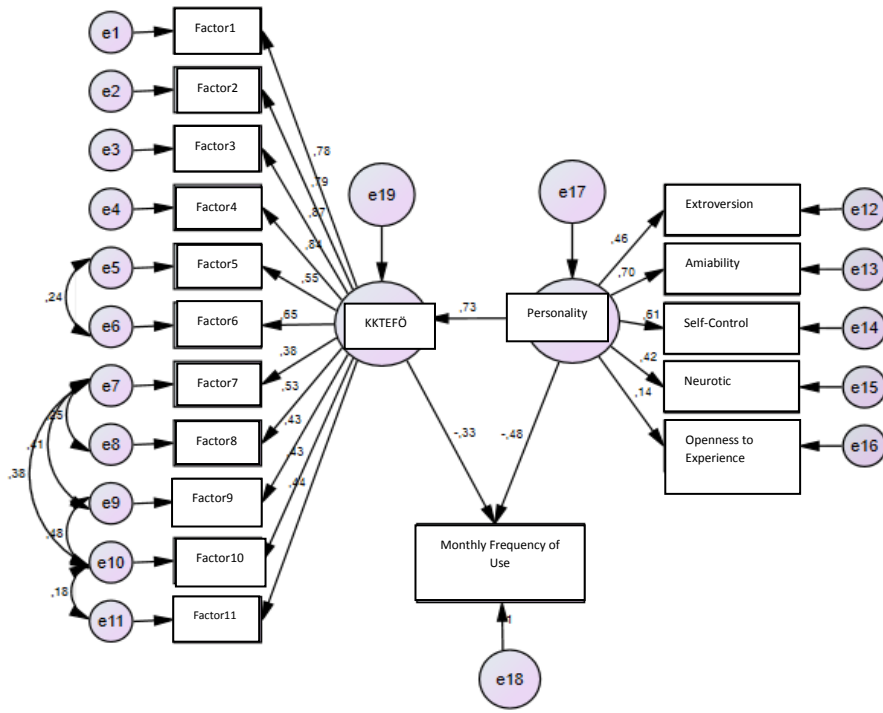
Figure 2. Structural Equation Model Established through the Personality Traits of the Customers, Factors Affecting the Credit Card Preference, and Monthly Frequency of the Use of the Credit Cards

The fit index scales included in Figure 2 are shown in Table 3:

Table 3. Fit index values for structural equation model

Fit Index	Structural Equation Model	Fit Criteria of Excellence	Acceptable Concordance Criteria	Assessment
$\chi2/$ (df)	503,00/(341)= 4,74	$0 \leq \chi^2 \leq 3$	$3 < \chi^2 \leq 5$	Acceptable
RMSEA	0.076	$0 \leq RMSEA \leq 0,05$	$0,05 < RMSEA \leq 0,08$	Acceptable
TLI/NNFI	0.95	$0,97 \leq TLI \leq 1,00$	$0,95 \leq TLI < 0,97$	Acceptable
CFI	0.96	$0,97 \leq CFI \leq 1,00$	$0,95 \leq CFI < 0,97$	Acceptable
NFI	0.93	$0,95 \leq NFI \leq 1,00$	$0,90 \leq NFI < 0,95$	Acceptable
AGFI	0,88	$0,90 \leq AGFI \leq 1,00$	$0,85 \leq AGFI < 0,90$	Acceptable
GFI	0,91	$0,95 \leq GFI \leq 1,00$	$0,90 \leq GFI < 0,95$	Acceptable

When Table 3 is examined, referring to 2/ (df), such value is computed as 4,74, indicating that it has satisfactory concordance with the values provided in the table(Byrne, 2013). When the fit index for the Root Mean Square Error of Approximation (RMSEA) is analyzed, the value of 0,076 is acceptable. in view of fit index. When the TLI/NNFI, CFI, NFI, AGFI, and GFI values are examined, they show satisfactory fit indices (Schermelleh-Engel, Moosbrugger, and Müller, 2003, p. 2). In general, when retail customer personality traits are used as the variable component for credit card preferences, the structural equation model developed for the impacts on the monthly frequency of credit card usage seems to be validated.

Table 4. When the Personality Traits are used as a Variable of the Factors that may have an Impact on the Credit Card Preferences, the results showing the Direct, Indirect and Total impacts of the Monthly Frequency of the Credit Card Usage

	Monthly Frequency of the Credit Card Usage					
	Direct Impact		*Indirect Impact*		*Total Impact*	
	β	p	β	p	β	p
Big Five Inventory	-0,479*	0,01	-0,238*	0,01	-0,717*	0,01
Scale of Factor Affecting Credit Card Preference	-0,325*	0,01	----	0,01	-0,325*	0,01

*p<,01

When Table 4 is studied, it is observed that, according to the big five inventory, the direct impact of the personality traits of the banks' retail customers on the monthly frequency of credit card usage is -0,48. It has been discovered that the higher the personality trait scores, the lower the frequency of credit card usage owing to negative influence. When customer personality traits are used as a variable for credit card preference, the indirect impact on monthly credit card usage is defined as -0,24. When the personality traits of the banks' retail customers are used as the variable for the factors that affect credit card preference, their total effect on the frequency of credit card usage on a monthly basis is determined to be -0,72. When considering the factors that influence credit card preferences as well as the personality qualities of the consumers, it is noted that the negative impacts on the monthly frequency of credit card usage tend to increase. The direct impact of the factors that impact the credit card preferences of the banks' retail customers is -0,33. The lower the frequency of monthly credit card usage, the higher the scores attributed to the factors that affect credit card preferences.

Table 5. Results showing the Direct Impacts of the Personality Traits of the Customers on the Factors Affecting the Credit Card Usage

	Scale for the Factors Affecting Credit Card Preference						
	Direct Impact		Indirect Impact			Total Impact	
	β	p	β	p		β	p
Big Five Inventory	0,733*	0,01	-----	0,01		0,733*	0,01

When Table 5 is analyzed, it is discovered that the personality traits of the banks' retail customers, as measured by the big five personality inventory, have a direct impact on the factors that affect credit card preference at a rate of 0.73. Customers' personality attributes appear to have a positive impact on the factors which influence credit card preference at a high level.

5. Conclusion, Discussion and Suggestions

The findings that corresponded to the study's objectives yielded the results. The obtained results are addressed in the context of theoretical and numerical data from the literature. Based on the research methodology and findings, the subject matter proceeds with recommendations for banks and researchers, especially the responsible parties in the banking industry as well as decision makers.

In general, the structural equation model established for the monthly frequency of credit card usage is confirmed when retail customers' personality attributes are used as variables for the variables that impact credit card use. The higher the scores assigned for the personality traits of the banks' retail customers, the lower the monthly credit card usage is with a negative impact, whereas the higher the scores assigned for the factors that influence credit card transactions by customers, the lower the monthly frequency of credit card usage is. Finally, it is observed that the personality traits of the customers have a high-level positive impact on the factors that have an impact on the credit card preference. The direct impact of the personality traits of the banks' retail customers, as measured by the big five personality inventory, on the monthly frequency of credit

card usage has been shown to be negative at a high level. In other words, the higher the scores of the personality traits, the lower the monthly frequency of credit card usage.

It was concluded that there exists a somehow negative but moderate statistical relationship between the scores of the factors impacting on the credit card preference of the banks' retail customers and the monthly frequency of their credit card usage. It was unearthed that there is a moderately close significant but negative relationship between the scale for the factors impacting the credit card preference of the banks' retail customers, monthly frequency of credit card usage during online and face-to-face shopping, and weekly frequency of credit card usage. The general conclusion from this study is that there is a moderately significant negative relationship between the personality qualities of the banks' retail customers and the monthly frequency of credit card usage. Similarly, there is a negative low-level significant relationship between the frequency of online shopping, the frequency of face-to-face shopping, and the frequency of credit card usage on a weekly basis. Based on the other results of the relationships established, it has been concluded that there is a negative low-level statistical relationship between the frequency of online shopping, the frequency of face-to-face shopping, and the weekly frequency of credit card usage.

When the literature is evaluated within the context of the study's variables, both theoretical and empirical investigations are identified. Prior to delving into the recommendations, a general discussion of the outcomes was held. In general, as human needs and expectations have increased and diversified, research have focused on the historical transformation of payment solutions (Yaşar, 2011). Emphasis is placed on the fact that credit cards are distinct tools used in the exchange of goods and services in lieu of cash (Akartepe, 2006). As a result, studies should focus on scrutinizing payment systems in light of their interaction with various variables and the psychology of spending money. Although it is regarded as an unanticipated or directly immeasurable variable in any study, including any occult variable such as ability, behaviour, and qualification (Özkan, 2015), we may claim that psychological aspects can be quantified indirectly. It is worth noting that technological advancements in Turkey's credit card markets offer a variety of new products and services to credit card customers through alternative channels (Köse, 2019). Fraudulent credit card transactions are another aspect of credit card usage. Carding produces billions of dollars in losses per year (Ünal, 2010; Kültür, 2017).

One study in the literature analyzed the effects of legislative rules enacted by the Banking Regulation and Supervision Agency (BRSA), which assumed control of consumer credit card bills and limited consumption beginning in 2013Before getting into the implications of legislative rules, a description of credit cards is provided, as well as information on their purposes, historical development, and evolution within the historical process in Turkey, and the institutions involved in the business. The legislative rules increasingly raised the minimum amount payable on credit cards. The maximum number of instalments. were limited to facilitate the repayments to the credit cards. To facilitate credit card repayments, the maximum number of instalments was limited. Additional restrictions were imposed on the total number of credit cards issued to each individual based on his or her income. The study scrutinizes the effects of such regulations on the rates of the legal proceedings executed on the credit cards. Multiple regression analysis was used to examine the impacts of legal regulations on the rates of judicial proceedings filed against credit cards. During the regression study, data on monthly frequencies with 96 observations from 2010:1 to 2017:12 were employed. As a result of the analysis, it was determined that the legal regulations had an effect on the rates of the judicial actions filed against the credit card holders (Köse, 2019). The results based on psychological factors of the customers included in this study are found to be consistent with both theoretical and practical literature results. (Atıcı, 1999; Demir, 1994; Demirel, 2014).The findings of this study, the Big Five Personality Inventory, and the factors influencing credit card preferences confirm that card users who use credit cards seldom have a higher average, however when the monthly frequency of credit card usage is analyzed, the average tends to decline.

Essentially, when the studies are analyzed, intricate and integrated research settings have moved to the foreground, rather than checking the overall psychology of the customers , but the future scenarios. As a result, variations such as retail customers' spending potential, monthly income, desire to spend cash, or capacity to pay cash may be advised to be performed through a model to be developed. Furthermore, because people are essentially tough to analyze, it is expected that the qualitative researches that will be conducted in order to examine the credit card usage patterns in depth would produce significant data not only for the banking system but also for the relevant governmental organizations.

When examined in terms of bank type, the findings of this study conducted within the working group that includes participation banks partially refer to a distinct customer portfolio in contrast to other public and private banks. In general, participation banks' interest-free approaches may have an influence on consumer demands and somewhat limit such requests. In this context, actions to enhance the structure of such participation banks are critical for customer protection. As a conclusion, it is possible to assert that the types of banks or apps that propagate the restricted decisions of the participation banks will integrate with the social structure of the society far beyond the psychology of the individuals.

REFERENCES

Afşar, M. (2011). Küresel Kriz ve Türk Bankacılık Sektörüne Yansımaları. *Eskişehir Osmangazi Üniversitesi İktisadi ve İdari Bilimler Dergisi*, *6*(2), 143-171.

Akartepe, G. (2006). *Hizmet pazarlamasında kredi kartı pazarlama süreci, kredi kartı kullanıcılarına yönelik araştırma*. (Yüksek Lisans Tezi). Gazi Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.

Apak, S. (2006). 2006 Yılı Başında Türk Bankacılık Sektörü, *Muhasebe ve Finansman Dergisi*, *31*, 25-32.

Apple, T. (2011). *The big five personality traits and foreign language speaking confidence among japanese efl students*. (Doctoral Dissertation). Temple University, Pennsylvania.

Atıcı, H. (1999). *Kredi kartı sahipliğini etkileyen faktörlerin ekonometrik modellerle tespit edilmesi ve bir uygulama örneği.* (Yüksek Lisans Tezi). Gazi Üniversitesi, Sosyal Bilimler Enstitüsü. Ankara.

Aykent, İ. (1970). *Planlı Kalkınma Döneminde Türk Bankacılığı.* Ankara: Ege Matbaası.

Baydemir, M. (2004). *Her Yönüyle Kredi Kartları.* İstanbul: Ohan Matbaacılık.

Bellamy, E. (1888). *Looking Backward 2000-1887*, Boston: Ticknor & Co

Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş. ve Demirel, F. (2018). *Bilimsel Araştırma Yöntemleri*, Ankara: Pegem Yayıncılık.

Byrne, B. M. (2013). *Structural equation modeling with LISREL, PRELIS, and SIMPLIS: Basic concepts, applications, and programming*. Psychology Press.

Camgöz, S. M. (2009). *Kişilik Özellikleri ile Finansal Performans Arasındaki İlişkiler: A Tipi Yatırım Fonu Yöneticileri Üzerinde Bir Değerlendirme.* (Doktora Tezi). Hacettepe Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.

Çırpan, B. (2000). *Kredi Kartları*. İstanbul: Ceren Yayınevi.

Çoroğlu, C. (2015). *Türkiye'de Kredi Kartı Uygulaması.* Finansal Araştırmalar ve Çalışmalar Dergisi.

Costa, P. T. and McCrae, R. R. (1980). Influence of extraversion and neuroticism on subjective well-being: Happy and unhappy people. *Journal of Personality and Social Psychology*, 38, 668-678.

Cüceloğlu, D. (2000). *İnsan ve Davranışı* (10. Baskı). İstanbul: Remzi.

Demir, D. (1994). *Banka kredi kartı hizmetlerinin üye işyerleri ve kart hamilleri açısından değerlendirilmesi*, (Yüksek Lisans Tezi). Karadeniz Teknik Üniversitesi, Sosyal Bilimler Enstitüsü, Trabzon.

Demirel, O. (2014). *Türkiye'de bankacılık sektöründe pazar gücü araştırması*. (Doktora Tezi). Süleyman Demirel Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.

Erdoğan, İ. (1994). *İşletmelerde Davranış*, İstanbul: Beta.

Eren, E. (2004). *Örgütsel Davranış ve Yönetim Psikolojisi*. İstanbul: Beta Basım.

Erkuş, A. (2013). *Davranış bilimleri için bilimsel araştırma süreci*. Ankara: Seçkin.

Eysenck, H. (1953). *The Structure of Human Personality*, London: Methuen and Co.

Ferguson, N. (2008). *The Ascent of Money.* NY: The Penguin.

Fraenkel, J., Wallen, N. and Hyun, H. (2012). *How to Design and Evaluate Research in Education* (8th edt.). New York: McGram-Hill Companies.

Horzum, M. B., Ayas, T. ve Padır, M. A. (2017). Beş Faktör Kişilik Ölçeğinin Türk Kültürüne Uyarlanması. *Sakarya University Journal of Education, 7*(2), 398-408.

Kaya, F. (2008). *Kredi kartları ve bireysel müşterilerin kredi kartı tercihine etki eden faktörlerin belirlenmesi üzerine bir araştırma*. (Doktora Tezi). https://tez.yok.gov.tr/UlusalTezMerkezi/ sayfasından erişilmiştir.

Kaya, F. (2009). *Kredi Kartlarının Sınıflandırılması.* Türkiye'de Kredi Kartı Uygulaması, İstanbul.

Kızılot, Ş., Kılıç, C. ve Tokatlıoğlu, İ. (2014). *Kartlı ödemelerin ekonomik faydaları.* İstanbul Bilgi Üniversitesi, İstanbul.

Köse, E. (2019). *Kredi kartlarında yapılan yasal düzenlemelerin kanuni takibe dönüşüm oranları üzerine etkisi: Bankacılık sektörü üzerine bir uygulama*. (Doktora Tezi). İstanbul Okan Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul.

Kültür, Y. (2017). *Kredi kartı sahtekârlıklarının tespiti için yeni model önerileri*. (Doktora Tezi). Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, İstanbul.

Lazarus, R. S. (1963). *Personality, Foundations of Modern Psychology Series*, New Jersey: Prentice-Hall INC.

Michael, G. (1994). *Business Dictionary*. London: The Penguin Books.

Öçal, T. and Çolak, Ö. F. (1988). *Para-Banka*. Ankara: İmge Kitabevi.

Oğuz, Y. (2007). *Okul müdürlerinin demografik değişkenler ve kişilik özellikleri ile çatışma yönetimi stili tercihleri arasındaki farklılıklar ve ilişkiler*. (Yüksek Lisans Tezi). Yıldız Teknik Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul.

Özcan, H. M. (2019). *Kişilik özellikleri ile sanal kaytarma davranışı arasındaki ilişkide gelişmeleri kaçırma korkusunun (GKK) rolü*. (Doktora Tezi). Osmangazi Üniversitesi, Sosyal Bilimler Enstitüsü, Eskişehir.

Özkan, B. (2015). *Kredi kartı kullanım alışkanlıkları üzerine gizli sınıf analizi.* (Yüksek Lisans Tezi). Yıldız Teknik Üniversitesi, Fen Bilimleri Enstitüsü, İstanbul.

Rammstedt, B., and John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of research in Personality*, *41*(1), 203-212.

Schermelleh-Engel, K., Moosbrugger, H. and Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of psychological research online*, *8*(2), 23-74.

Sümer, G. and Onan, F. (2016). Dünyada Faizsiz Bankacılığın Doğuşu, Türkiye'deki Katılım Bankacılığının Gelişme Süreci ve Konvansiyonel Bankacılıktan Farkları. *İktisadi ve İdari Bilimler Fakültesi Dergisi, 17*(3), 296-313.

Tabak, H. (2019). Türk eğitim sisteminde eğitimde fırsat eşitliğine kuramsal bakış: roller ve sorumluluklar. *Türk Eğitim Bilimleri Dergisi*, *17*(2), 370-393.

Teoman, Ö. (1996). *Hukuki Yönden Kredi Kartı Uygulaması*, İstanbul: Beta Yayınları.

Torlak, Ö. (2002). Kredi Kartı Kullanımının Satınalma Alışkanlıklarına Etkileri Üzerine Eskişehir'de Bir Araştırma. *Yönetim/İstanbul Üniversitesi İşletme Fakültesi İşletme İktisadı Enstitüsü Dergisi*, *13*(41), 67-78.

Trinh, H. N., Tran, H. H., and Vuong, D.H.Q. (2020) *Determinants of consumers' intention to use credit card: a perspective of multifaceted perceived risk* https://emerald.com/ insight/2615-9821.htm *Banking University of Ho Chi Minh City, Vietnam, Consumers' intention to use credit card 105*

Ünal, M. A. (2010). *POS cihazı ve kredi kartı kullanımının ticari yaşamdaki yeri ve önemi*. (Yüksek Lisans Tezi). Haliç Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul.

Yaşar, H. (2011). *Kredi kartlarının seçilmiş iktisadi değişkenler ile ilişkisinin ekonometrik analizi: Türkiye uygulaması*. (Yüksek Lisans Tezi). Dumlupınar Üniversitesi, Sosyal Bilimler Enstitüsü, Kütahya.

Yazgan İnanç, B., and Yerlikaya, E. E. (2010). *Kişilik Kuramları* (3. Baskı). Ankara: Pegem Akademi Yayınevi.

Yılmaz, E. (2000). *Kredi Kartı Uygulaması ve Ekonomik Etkileri*. İstanbul: Türkmen Kitabevi.

Yoon, K. (1997). *General Mental Ability and the Big Five Personality Dimensions: An Investigation of the Cross-Cultural Generalizability of Their Construct and Criteron-Related Validities in Korea*. (Doctoral Dissertation). The University of Iowa, Iowa.

Yüksel, Ö. (2006). *Davranış Bilimleri*, Ankara: Gazi Kitabevi.