

# NAKİTSİZ TOPLUM SÜRECİ VE BANKA TİCARİ MÜŞTERİLERİNİN, ÖDEME KARTLARI KULLANIM TERCİHLERİNİN BELİRLENMESİ

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## ÖZ

Bilişim ve iletişim teknolojilerindeki gelişmeler sayesinde, mobil, dijital, ve kartlı sistemler kullanılarak yapılan ödemelerin toplam ödemelerden aldığı pay artmakta, nakit kullanımı ise giderek azalmaktadır. “Nakitsiz Toplum” adı verilen bu süreç, bankalar, ödeme sistemi kuruluşları, teknoloji şirketleri ve hükümetler tarafından desteklenmektedir. Çalışmada, nakitsiz toplum sürecine etki eden unsurlardan olan ticari müşterilerin kart kullanım tercihlerinin belirlenerek, bu tercihlerin nakitsiz toplum sürecine etkileri incelenmesi amaçlanmıştır. Araştırma kapsamında İstanbul ilinde faaliyet gösteren ticari bankanın banka ve/veya kredi kartını kullanan 1155 ticari müşteriden anket yöntemiyle veri toplanmıştır. Keşfedici faktör analizi yöntemiyle belirlenen faktörler arasında yer alan nakitsiz toplum sürecinin diğer faktörlerle ilişkisi doğrusal regresyon modeli uygulanarak test edilmiştir. Çalışma bulgularına göre; ticari müşterilerin kart kullanım alışkanlıklarını etkileyen faktörlerden, kart ürün özellikleri, bankanın genel yapısı, yakınlık, bütünsel pazarlama iletişimi, müşteri ilişkileri yönetimi ve marka/ımağ faktörleri ile “nakitsiz toplum süreci” arasında ilişki bulunduğu, “banka nakit yönetimi hizmetleri” ile “nakitsiz toplum süreci” arasında ise ilişki bulunmadığı saptanmıştır.

**Anahtar Kelimeler:** Nakitsiz toplum, Ticari müşteriler, Kart kullanım tercihlerini etkileyen Faktörler.

## CASHLESS SOCIETY PROCESS AND DETERMINING THE PAYMENT CARD USAGE PREFERENCES OF CORPORATE BANKING CUSTOMERS

### ABSTRACT

Due to the developments in information and communication technologies, the share of payments made by using mobile, digital and card systems increases in the total payments, while cash usage decreases. This process, named the "Cashless Society", is supported by banks, payment system organizations, technology companies and governments. The study aims to determine the card usage preferences of corporate customers, which are among the factors affecting the cashless society process, and examine the impacts of these preferences on the cashless society process. Data were collected from 1,155 corporate customers using debit and/or credit cards of a commercial bank operating in Istanbul province within the research scope. The relationship between the cashless society process and other factors determined by the exploratory factor analysis method was tested using the linear regression model. According to the study findings; Among the factors that affect the card usage habits of corporate customers, card product features, the general structure of the bank, proximity, integrated marketing communication, customer relationship management, and brand/image factors are related to the cashless community process, it was determined that there was no relationship between the cash management services of the bank and cashless community process.

**Keywords:** Cashless society, Corporate customers, Card usage.

## 1. INTRODUCTION

Money plays an intermediary role in the exchange of goods and services within modern societies. The impact of intermediation on the economy leads to mutual exchanges in the form of goods-money-goods. Besides the medium of exchange function, the concept of money is sometimes used interchangeably with cash, wealth, or income. Nevertheless, in today's modern economies, it is seen that alternative payment systems are replacing cash usage. All kinds of tools, operating systems, and communication networks that render shopping more convenient are included in a payment system definition (Zengin & Güngördü, 2013). Electronic payment instruments constitute the most essential portion of this system (Sato and Humphrey, 1995). Within the payments system, banks are involved in the instruments such as credit cards, debit cards, direct debit system (DDS), direct collection system (DCS), money order, and EFT. It is seen that cashless society or "cashless economy" concepts are primarily used in the literature to use these systems, which gradually mitigate cash usage in payments.

The concepts of cashless society or cashless economy refer to transactions made through plastic cards and digital forms, mostly using information transfer, rather than a society or economy in which money is not used for payments at all (Kumari & Khanna, 2017). The first version of electronic money (e-money) was developed in card systems. EFT-based card systems (debit cards, prepaid cards, electronic cash (e-cash)), and electronic checks can be considered as the first applications of e-money (Mishkin, 2000). Along with the cashless society process, it is expected that cash usage would decrease significantly and have positive impacts on the monetary system and economy. For instance, it can be argued that financial services such as digital payments and banking services mitigate the security and management difficulties stemming from cash. One of the World Bank's top priorities is to encourage access to and use of financial services (Demirgüç-Kunt, Klappe, et al., 2018). Commercial cards have become one of the fastest-growing card products by enhancing their popularity in recent years by courtesy of the usage advantages brought along with them.

Nonetheless, although the total market share of commercial payments is well above the individual payments, the commercial cards' share in total commercial consumption expenditures remains at a quite low level compared to the total individual payments / individual card ratio. Due to the size of the target market, it is seen that the institutions in the payments system shift their new products and activities toward this area. Card usage, especially in small enterprises' payments, is commensurately higher than corporate and large-scale enterprises, as they perceive this product as an important credit instrument. The public authority also invests in this area since it provides a cost advantage and leaves a mark, especially for tax transactions (Herbst Murpy, 2011).

Determining the factors that support the developing cashless society is crucial for emphasizing the cashless society's concept. For this reason, the research study aims to obtain responses to some questions. Research questions are determined such as "What are the impacts of commercial electronic cards in the cashless society process?", "What are the factors affecting the electronic card usage preferences of corporate customers in terms of banks and payment institutions?". The study aims to detect the factors that determine the card usage habits of corporate card customers and the impacts of these factors on the cashless society process. In the literature, it is seen that research studies on cashless society are mostly conducted based on technical studies examining the impacts of consumer electronics, especially mobile products, on the process. Studies regarding card usage impacts on the cashless society also focus on card usage and card usage habits of individual customers rather than on corporate customers. There are some limitations to the research study. Firstly, the research study has an exploratory feature. Research findings can be re-evaluated according to different variables. The obtained data of the research study are self-reported. That is, they represent the opinions of the participants. As a sample, corporate customers using debit and/or the credit card of a commercial bank operating in Istanbul province are determined, and the data are collected using a survey questionnaire method. For the research study in question, relevant permission was obtained from the Social Sciences Ethics Committee of Beykent University on 05.06.2019. Altering the sample may cause the research findings to differ. The specified constraints should be taken into account in the examination and interpretation of the research study. It is thought that the scale used in the research, which aims to determine the factors that affect the card usage

habits of corporate customers, has the power to indicate these factors at an adequate level. The research study differs from similar studies in terms of presenting findings, especially in terms of card usage habits of corporate customers and revealing the impacts of these habits on the cashless society process. Nonetheless, although the total market share of commercial payments is well above the individual payments, the commercial cards' share in total commercial consumption expenditures remains at a quite low level compared to the total individual payments / individual card ratio. Due to the size of the target market, it is seen that the institutions in the payments system shift their new products and activities toward this area. Card usage, especially in small enterprises' payments, is commensurately higher than corporate and large-scale enterprises, as they perceive this product as an important credit instrument. The public authority also invests in this area since it provides a cost advantage and leaves a mark, especially for tax transactions (Herbst Murpy, 2011).

## LITERATURE REVIEW

Kaya (2008) examined the factors by which individual customers preferred upon making payments via credit card. The study was conducted by one-on-one questionnaire method in Istanbul Province, and 1,241 suitable obtained data were tested using the descriptive research model. 11 factors that affected card usage, including “the characteristics of the issuing bank, financial power and facilities, distribution channels, direct marketing instruments, customer relations management and data-based marketing, price policy, integrated marketing, sales promotion, public relations, and process management” were determined. Financial institutions were advised to “well analyze the demographic characteristics of their target audiences, and formulate their marketing strategies in compliance with the desires and needs of their audiences.”

Hasan, De Renzis, et al. (2012) examined the impacts of electronic payments on the retail sector of 27 European countries over the period 1995-2009. The data were obtained from the Statistical Data Warehouse (SDW) and analyzed via the Arellano-Bond Dynamic Panel GMM. The research study was based on payment cards, credit transfers (EFT/money order), automatic payments, check and cash payments. As a result of the study, it was determined that the transition from paper to electronic retail payments had a positive impact on the real economy. It was determined that non-cash payment instruments stimulated economic growth, trade, and consumption. It was revealed that payments made via electronic cards had the strongest impact on growth, and the macroeconomic impact of check payments was relatively low.

Arango, Huynh, et al. (2015) examined the impact of the schemes' rewards on the consumer payment preferences upon the acceptance and use of cards by member merchants. The data covered the period 2004-2013 and were obtained from the Statistical Data Warehouse of the European Central Bank. According to the study's findings, hygiene and theft concerns lead to a shift away from cash and have a positive impact on debit card usage. Speed, low amount, and ease of use are preferred in favor of cash. Relative costs and overspending concerns highlight the use of debit cards, and knowing that debit cards are accepted by member merchants reduce the possibility of cash usage by 32%. Contactless payments escalate card usage.

Bayrakdaroğlu and Altuntaş (2015) investigated “what banks should do to determine the current situation of credit card marketing to individual customers and generalize the credit card usage” in the Istanbul province through a survey questionnaire. Necessary and important factors for marketing were identified and evaluated within the framework of gender sensitivity. The data were tested using the frequency and factor analysis methods. The majority of the individuals in the sample consisting of 390 questionnaires used 1 or 2 credit cards, and it was observed that they mostly attached importance to “trust” and acquiring information about the card. The banks' secure, easy and inexpensive access to customers over the internet was emphasized. The importance of using effective social media and digital marketing methods was also stated. It was asserted that campaigns and promotions were far from affecting credit card users, and banks should have redesigned their campaigns by taking the demographic characteristics and individual interests of their customers into consideration.

Tee and Ong (2016) analyzed the impacts of payments on economic growth utilizing the data obtained from 5 EU countries over 2004-2012. The analyzed data were obtained from the International Monetary Fund and the European Central Bank. Growth data were transformed into real data by the researchers. For the analysis, Pedroni's Cointegration and Panel Vector Error Correction Models (PVECM) were used. The study stated that cashless payments had impacts on economic growth in the long run; however, no significant impact was expected in the short run. It was determined that due to the high costs, payments made by check would have gradually decreased and been replaced by electronic and card payments.

Aytekin and Yücel (2017) conducted a conceptual research study on the relationship between electronic payments and the retail industry. In the research study, it was argued that electronic payment methods are increasing in the retail sector. Online shopping, especially payments made using debit and credit cards, contributed to increased electronic payments. Transaction speed, ease (contactless payments), and security (wearable technologies) contributed positively to this process. On the other hand, it was stated that consumers who wished privacy might have turned to non-bank payment methods such as Bitcoin due to their concerns about traceability.

Kumari and Khanna (2017) analyzed the cashless economy within a conceptual framework and stated the benefits and barriers to the process. In the research study, suggestions were made to improve the cashless economy by taking the India example into account. States were increasingly encouraging such a process, especially to register the economy, control payments, aggravate savings, and maintain a safe and convenient payments system. Notwithstanding, government and public institutions' adoption of electronic payment systems was insufficient compared to private sector organizations. Insufficient ICT (Information and Communication Technology) knowledge of system users and concerns regarding security is still an obstacle to the cashless society process's progress.

Upon considering the examples of the conducted studies, it is seen that the decline in cash usage in commercial life and payments has positive impacts on both economic growth and social welfare. Security, convenience, and ease of use brought by cards and electronic payments, in particular, are increasingly driving individuals away from cash. In this regard, expenditures and, therefore, economic activities are boosting. There is evidence that checks, which are a form of payment based on paper, are gradually decreasing.

## **2. DATASET AND METHODOLOGY**

### ***2.1. Aim and Importance of the Research Study***

Besides preventing cash-based crimes such as robbery and theft, cashless economies provide benefits such as increasing the sellers' turnover and operational efficiency and raising profitability due to the decline in operating costs (Tee & Ong, 2016). High operational transaction costs (Tunçsiper, 2018) are among the most crucial factors that accelerate the cashless society movement in the world (Van Steenis, 2019). Ann Cairns of MasterCard Company stated that "the ratio of printing and processing of cash through Central Banks to GDP has increased up to 1.5%" (Jenkins, 2018). In their research study conducted in Turkey by considering 2012 as the base year, they estimated that a 10-point increase in card usage over the period 2013-2015 would contribute to Turkey's economy with an additional 42.97 billion TL (Elgin, Yücel, Kuzubaş, 2015).

Although commercial cards are expanding their share in card systems day by day, their usage is not at a sufficient level yet. The share of card usage in total commercial expenditures is quite low compared to the share of card usage in individual expenditures. Nonetheless, the total size of the market share of commercial payments is much higher than that of individual payments (Herbst Murpy, 2011). B2B e-commerce volume, which reached 12.2 trillion USD as of 2019, is over six times higher than B2C commerce volume (ecommerceDB.com, 2019). The share of commercial credit cards in 676 billion TL worth of shopping made using card system as of 2017 in Turkey was 19.9% (www.bkm.com.tr, 2018). The most commonly used payment method in the B2B channel is the open (current) account (Göl, İlhan, et al., 2019).

One of the most important advantages of using commercial cards for sellers is the secure collection. In a study, it was revealed that 27% of suppliers lost 2% of their revenues due to

difficulties and delays in the collection of their receivables (Herbst Murphy, 2011). Improving technology and commercial activities render the concepts of resource utilization, cash flow, and cost management more crucial day by day for enterprises. When commercial cards are used, enterprises provide easier management of the time value of money and optimize debt collection, debt payment, and duration of stock holding.

The study investigates the factors that detect the card usage habits of corporate card customers and determine the impacts of these factors on the cashless society process. The research study's importance involves the determination of the factors that are crucial in commercial card usage, including the absence of studies in which the impacts of these factors on the cashless society have been empirically tested regarding Turkey. Determining corporate customers' card usage preferences would enable organizations in the payments sector to produce new products for commercial card usage. Thus, besides improving the cashless society process, it would be possible to aggravate the share of commercial card usage in total commercial expenditures.

### ***3.2. Research Population, Sample, and Sampling Method***

The population of the research study consists of corporate customers using debit and/or credit cards issued by commercial banks. The sample of the research study is comprised of commercial card users living in Istanbul province. A simple random sampling technique is used to determine the sample of the study. Simple random sampling was defined by Kurtuluş (2014) as the sampling type in which each individual in the sample has an equal chance of choice, the error occurring due to selection is reduced, and the sample can be listed conveniently. Based on the aforementioned features, customers using commercial cards are randomly selected.

Over 4,000 corporate customers are contacted throughout the study. The aim of increasing the validity and reliability of the study accounts for the large sample size. Responses are obtained for 1,200 questionnaire forms. The obtained data are analyzed in terms of accuracy and consistency. The data collection process is finalized as soon as questionnaires are responded to by 1,155 participants found to represent the study population. BKM (2020) stated that there were 4,670,367 commercial, corporate credit cards by the end of 2019. Limitations in determining the number of samples (384) and the number of participants per item (10) are considered. In evaluating the questionnaire forms' appropriate filling, the data extraction process specified by Hair et al. (2014) is followed. According to Hair et al. (2014), there is no need for the data extraction process when no major deficiency exists in the survey questionnaire forms, and the extreme values reflect the population. The data are analyzed after concluding that the data are collected properly.

### ***3.3. Measurement Tools Used in the Research Study***

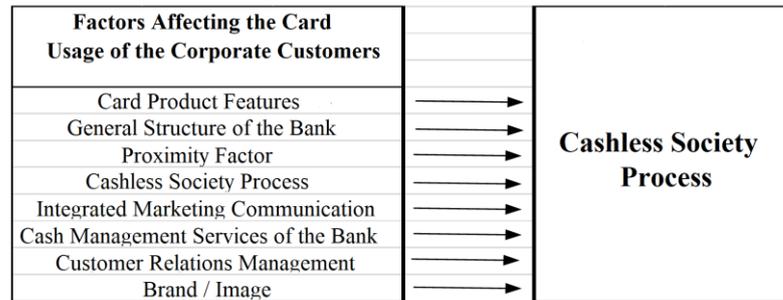
Online survey questionnaires are used throughout the data collection process. The questionnaire forms consist of two parts and contain statements that measure demographic characteristics and concepts. Demographic characteristics consist of items, such as the firm's turnover, number of employees, and the sector in which it operates, which describe the firm and its corporate representative who responds to the questionnaire. In the second part, there are statements regarding the firms' banking card usage habits, the determinants of both cash and card usage, the characteristics of the cards they prefer to use frequently, and the characteristics of the card-issuing banks. The responses given to the items in the scale are provided with a 5-point Likert type measurement. In the generation of the scale used in the study, the literature and the researcher's experience were utilized based on the measurement tool developed by Kaya (2008) to determine the card usage habits of individual customers.

### ***3.4. Research Model and Hypotheses***

The model considered in the study is established to determine the impacts of banking card usage by commercial firms on the cashless society process. Firstly, the factors affecting the card usage decisions of commercial firms are determined by the exploratory factor analysis method. It is aimed at measuring the impacts of the determining factors on the cashless society process. It is known that certain disadvantages, arising from the perception of costs, exist, especially in the presence of corporate customers using both commercial credit cards and debit cards instead of cash. Besides, prevalent informality in Turkey is one of the obstacles to the cashless society. The card-issuing banks

encourage their corporate customers to use more cards while also encouraging their cards in competition. The aforementioned situation also affects the banks' structure, technology, products, communication channels, and strategies, and the services with which they provide their customers, that is their marketing mix decisions. The descriptive research model within the scope of the study is as illustrated in Figure 1.

**Figure 1: Research Model**



In the model, factors such as card features, bank structure, and services that affect the preferences of the commercial firms in terms of using payment system cards in their payments along with the cashless community process are determined as dependent variables. Independent variables are demographic, commercial, and socio-economic characteristics such as turnover, number of employees, partnership structure, operating period, sector of operation, number of banks whose cards are used, and duration of card usage. The model is tested with statistical methods.

The turnover, partnership and/or ownership structure, number of employees, sector of operation, level of institutionalism, and technological facilities are explanatory variables of the firms. While making their card usage preferences, corporate customers take their payment habits, economic priorities, the banks' structure from which they receive services, the variety of services provided, and the characteristics of the cards they use into consideration. It is thought that banks can enhance the card usage of their customers by aggravating the variety and efficiency of the services they offer to their corporate customers, especially by providing technological and economic advantages. The hypotheses asserted within the framework of the research model are presented in Table 1.

**Table 1: Research Hypotheses**

Hypotheses	
H <sub>1</sub>	The impact of card usage characteristics (independent variable) on the cashless society (dependent variable), which is one of the factors that affect the card usage preferences of corporate customers, is statistically significant.
H <sub>2</sub>	The impact of the general structure of the bank (independent variable) on the cashless society (dependent variable), which is one of the factors affecting the card usage preferences of corporate customers, is statistically significant.
H <sub>3</sub>	The impact of proximity (independent variable) on the cashless society (dependent variable), which is one of the factors that affect the card usage preferences of corporate customers, is statistically significant.
H <sub>4</sub>	The impact of integrated marketing communication (independent variable) on the cashless society (dependent variable), which is one of the factors affecting card usage preferences of corporate customers, is statistically significant.
H <sub>5</sub>	The impact of cash management services of the bank (independent variable) on the cashless society (dependent variable), which is one of the factors that affect the card usage preferences of corporate customers, is statistically significant.
H <sub>6</sub>	The impact of customer relations management (independent variable) on cashless society (dependent variable), which is one of the factors affecting card usage preferences of corporate customers, is statistically significant.
H <sub>7</sub>	The impact of brand/image (independent variable) on cashless society (dependent variable), which is one of the factors affecting card usage preferences of corporate customers, is statistically significant.

## 4. RESEARCH FINDINGS

### 4.1. Analysis and Results

1,155 responses, which well represent the population, are analyzed with the instrument of the SPSS 23.0 software. The key assumptions of the research study are as follow;

- The population, sample, and data collection tools are suitable for the research study,
- The responses given by the individuals participating in the survey questionnaire are sincere, objective, correct, and impartial,
- The researcher is objective and impartial in the process of determining and interpreting the judgments,
- The obtained findings of the study should be guiding in both the Cashless Society targets of Turkey and the marketing mix preferences of the commercial card-issuing banks.

#### 4.1.1. Descriptive Analysis

Data on the demographic characteristics of the survey participants are presented in Table 2. As shown in Table 2, 80.7% of the 1,155 survey participants included in the scope of the research study are over the age of 34 and consist of experienced individuals. 55.8% of the participants have undergraduate and graduate degrees, whereas 23.8% have high school diplomas. Upon considering the firm's positions, it is seen that 70.2% of the firm consists of partners and senior managers, and the remaining 29.8% consists almost entirely of middle-level managers. It is seen that 68.8% of the participants are fully authorized in all transactions regarding the bank. In the light of the aforementioned data, it is seen that the respondents are sufficiently efficient and competent.

**Table 2:** Descriptive Characteristics of the Participants

Variables		Frequency	Percentage	Total Percentage
<b>Your Age</b>	18-25 years of age	24	2.1	2.1
	26-33 years of age	198	17.1	19.2
	34-41 years of age	372	32.2	51.4
	42-49 years of age	310	26.8	78.3
	50 and older	251	21.7	100
	Total	1155	100	
<b>Your Educational Status</b>	Elementary School	46	4	4
	Secondary School	65	5.6	9.6
	High School	275	23.8	33.4
	Associate Degree	124	10.7	44.2
	Undergraduate and Graduate Degrees	645	55.8	100
	Total	1155	100	
<b>Your position at the firm</b>	Corporate Partner & Board Member	685	59.3	59.3
	General Manager & Assistant General Manager	130	11.3	70.6
	Marketing Manager	40	3.5	74
	Finance & Accounting Specialist	273	23.6	97.7
	Purchasing Manager	16	1.4	99
	Other	11	1	100
	Total	1155	100	
<b>Your authorization status in banking relations in your firm</b>	Fully authorized in all transactions	795	68.8	68.8
	I decide on all transactions within certain limits	79	6.8	75.7
	I decide on certain transactions, without limitation	23	2	77.7

	I decide to a certain extent on certain transactions	69	6	83.6
	We decide together with the firm owner	117	10.1	93.8
	We decide together with my partner	28	2.4	96.2
	Not authorized	44	3.8	
	Total	1155	100	100

Data on the descriptive characteristics of the participants in the study are presented in Table 3. As shown in Table 3, 44% of corporate card customers have 1-9 employees, 31.3% have 10-49 employees, 15.1% have 50-249 employees, and 9.6% have 250 or more employees. Upon considering another firm classification criterion, namely, the annual turnover, 37.9% of customers acquire turnovers of 0-3 million, 20.8% acquire turnovers of 3-25 million, 16.2% acquire turnovers of 25-125 million, and 12.4% acquire turnovers over 125 million. 12.4% of the enterprises participating in the survey questionnaire are in the “corporate” segment, and 87.6% are in the “SME” segment in accordance with Regulation No. 24.06.2018 / 30458.

**Table 3:** Descriptive Features of Firms

Variables		Frequency	Percentage	Total Percentage
<b>Number of Employees</b>	1-9 employees	508	44	44
	10-49 employees	362	31.3	75.3
	50-49 employees	174	15.1	90.4
	250 employees and over	111	9.6	100
	Total	1155	100	
<b>Turnover</b>	0-3,000,000	437	37.8	37.8
	3,000,001-25,000,000	388	33.6	71.4
	25,000,001-125,000,000	187	16.2	87.6
	125,000,001-350,000,000	70	6.1	93.7
	350,000,001 and higher	73	6.3	100
	Total	1155	100	
<b>The number of banks whose corporate cards (credit/debit) have been used by the firm</b>	1	238	20.6	20.6
	2	347	30	50.6
	3	232	20.1	70.7
	4	145	12.6	83.3
	5 and higher	157	13.6	96.9
	Unknown	36	3.1	100
	Total	1155	100	
<b>Number of years during which the firm has been using the commercial (debit/credit) card</b>	Less than 1 year	60	5.2	5.2
	More than 1 year-less than 3 years	216	18.7	23.9
	More than 3 years and less than 6 years	345	29.9	53.8
	More than 6 years and- less than 10 years	274	23.7	77.6
	10 years and over	260	22.5	100
	Total	1155	100	
<b>Percentage of the payments made using the commercial card</b>	Between 1-10%	593	51.3	51.3
	Between 11-20%	203	17.6	68.9
	Between 21-35%	149	12.9	81.8
	Between 35-50%	107	9.3	91.1
	51% and over	103	8.9	100
	Total	1155	100	
<b>Please grade (between 1 and 5) the level of satisfaction about</b>	1	15	1.3	1.3
	2	26	2.3	3.5
	3	198	17.1	20.7
	4	407	35.2	55.9

using commercial cards	5	509	44.1	
	Total	1155	100	100

79.3% of firms are satisfied with using commercial cards. 76.1% have been using the cards for more than 3 years, whereas 79.9% have been using the cards of more than 2 banks. These data indicate that the individuals in the sample are experienced and conscious about card usage. However, it is observed that the amount of card usage is quite low compared to the total payments made. The ratio of those who stated that they made more than 20% of their payments using cards is merely 31.1%. Here, it is seen that measures exist to encourage card usage for making payments.

#### 4.1.2. Validity and Reliability of the Research Scale

Regarding the structural validity of the developed scale, exploratory factor analysis (EFA) is applied along with Principal Component and Varimax rotation techniques. In order to fulfill the suitability of sampling adequacy, the Kaiser-Meyer-Olkin (KMO) and Bartlett's Sphericity tests are performed, and their results are presented in Table 4.

**Table 4:** Factor Analysis Results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measurement of Sampling Adequacy		0.938
Bartlett's Sphericity Test	Chi-Square	24463.221
	Degree of Freedom	780
	Significance Value	0.000

It is observed that the adequacy ratio of the KMO value is within the boundaries of perfection (0.938), which is well above 0.60, so the sampling is adequate. It is understood that Bartlett's Sphericity test has significance at the 0.05 significance level (Chi-square = 24463.2;  $p < 0.05$ ), that is, the correlations among the items are suitable for factor analysis (Hair, Joseph, et al., 2014). It is determined that the Item Total Correlation values are above 0.50, and the Communalities value is above 0.40.

**Table 5:** Exploratory Factor Analysis and Reliability Analysis Results

Statements		Factor Loads	Communalities	Cronbach's Alpha	Eigenvalues	Explained Variance (%)
<b>Card Product Features</b>				<b>0.891</b>	<b>12.587</b>	<b>31.467</b>
Question _67	The number of installments is higher than that of other cards	0.827	0.783			
Question _68	Offering the opportunity to postpone the installments without interest or to skip the installments.	0.779	0.699			
Question _66	More sectors and/or number of installments compared to individual credit cards	0.769	0.732			
Question _69	Combining shopping and transportation within a program and/or organizing special campaigns in the transportation area (giving away free plane-train-bus tickets by redeeming points)	0.682	0.668			
Question _71	Long due date	0.661	0.595			
Question _65	Redeeming more money points / mileage points in purchases	0.64	0.614			
Question _70	Arranging raffles among frequent users of the card to give away gifts such as vacations, computers, TV, etc.	0.526	0.641			
<b>General Structure of the Bank</b>				<b>0.862</b>	<b>3.335</b>	<b>8.337</b>

Question _33	Strong financial structure of the bank	0.833	0.746			
Question _32	The bank that has been operating for many years	0.800	0.705			
Question _34	Capital/ownership structure of the bank (Public, affiliation, holding, etc.)	0.788	0.699			
Question _31	Credibility of the Bank	0.726	0.616			
Question _37	The bank has an extensive branch network	0.615	0.51			
Question _36	Being the card issued by a bank with national capital	0.601	0.509			
Question _35	Bank operating in the international market	0.567	0.541			
<b>Proximity</b>				<b>0.828</b>	<b>2.735</b>	<b>6.837</b>
Question _61	Employment of individuals, who make acquaintance with the firm's officials, at the card-issuing bank	0.799	0.703			
Question _64	The bank with which the firm's representative also works individually	0.766	0.666			
Question _60	The proximity of the card-issuing bank's branch to the residence of the firm's official.	0.71	0.686			
Question _59	The proximity of the card-issuing bank's branch to the workplace	0.616	0.543			
Question _63	Working with the same bank for many years	0.545	0.513			
<b>Cashless Society Process</b>				<b>0.795</b>	<b>1.691</b>	<b>4.227</b>
Question _44	The abundance of contracted member workplaces	0.700	0.655			
Question _40	Prevalence of the bank's POS device usage	0.699	0.589			
Question _41	Quality of mobile, internet and telephone banking services of the bank	0.569	0.554			
Question _42	The bank's emphasis on innovation	0.564	0.593			
Question _45	Being the card brand preferred by the enterprises (vendors, suppliers) with which the firm works	0.563	0.566			
Question _43	The card offering the opportunity to make purchases from many parts of the world and withdraw cash.	0.511	0.487			
<b>Integrated Marketing Communication</b>				<b>0.859</b>	<b>1.453</b>	<b>3.634</b>
Question _75	Informative and directive advertisements	0.697	0.718			
Question _74	The bank providing quality consultancy services through means such as digital media, the internet, and telephone.	0.659	0.701			
Question _76	Effectiveness of advertisements on the social media platform	0.636	0.71			
Question _73	Providing solutions compatible with ERP (Enterprise Resource Planning) and/or e-invoice system used by the firm	0.622	0.633			
Question _77	The bank's sponsorship for activities in different fields (such as Cultural-Sports)	0.597	0.647			
<b>Cash Management Services of the Bank</b>				<b>0.81</b>	<b>1.304</b>	<b>3.259</b>
Question _56	Utilization of the bank's DDS / Dealer card system	0.703	0.657			
Question _57	Being the card issued by the bank whose account number is written on invoices	0.668	0.693			
Question _58	Being the card issued by the bank whose POS device is utilized	0.632	0.617			

Question _55	Utilization of checkbooks issued by the bank and/or conducting foreign trade transactions with the bank	0.606	0.592			
<b>Customer Relations Management</b>				<b>0.748</b>	<b>1.103</b>	<b>2.757</b>
Question _52	High commercial credit limit at the bank	0.758	0.692			
Question _49	Higher limit than of other commercial cards	0.648	0.591			
Question _50	Conducting other commercial transactions of the firm through the bank which issues the card	0.633	0.594			
Question _51	Having a deposit/investment account of the firm in the bank which issues the card	0.607	0.572			
<b>Brand/ Image</b>				<b>0.688</b>	<b>1.012</b>	<b>2.53</b>
Question _46	The network structure of the card (such as Troy, Visa, or Master Card)	0.572	0.586			
Question _47	Brand/platform with which the card is affiliated (Bankkart Combo, Bonus, Maximum, World, etc.)	0.524	0.603			
<b>Total Explained Variance: 63.04 (%)</b>						

The validity and reliability results obtained by conducting an exploratory factor analysis and reliability analysis are presented in Table 5. 8 factors describe card usage habits of corporate customers, with eigenvalues exceeding 1, and a total explained variance of 63.4% obtained. Statements matching more than one factor, with eigenvalues below 1, and factor loads below 0.50, meaning, unmatched with any factor, are eliminated. Factors that are obtained as a result of the analysis, which continues with 40 judgments, are determined as card product features, general characteristics of the bank, proximity factor, cashless community process, integrated marketing communication, cash management services of the bank, customer relations management, and brand/image. The Pearson correlation coefficients ( $-1 < p < +1$ ), mean values, and standard deviations of the variables obtained from the analysis are presented in Table 6.

**Table 6:** Correlation Coefficients, Mean Values, and Standard Deviations of the Variables

Variables	Mean	Standard Dev.	1	2	3	4	5	6	7	8
1- Card Product Features	3.835	1.022	1							
2- General Structure of the Bank	4.370	0.729	.289**	1						
3- Proximity Factor	3.559	1.008	.476**	.420**	1					
4- Cashless Society Process	4.364	0.703	.491**	.467**	.332**	1				
5- Integrated Marketing Communication	3.606	1.064	.631**	.446**	.560**	.472**	1			
6- Cash Management Services of the Bank	3.548	1.118	.461**	.440**	.611**	.389**	.583**	1		
7- Customer Relations Management	4.278	0.746	.408**	.422**	.440**	.486**	.435**	.510**	1	
8- Brand/ Image	4.096	0.991	.400**	.414**	.351**	.564**	.451**	.434**	.391**	1
** Correlation is found significant at a %1 significance level. Sig: 0.000 for all variables (Double-sided),										
N= 1,155										

Upon evaluating the table, it is seen that the relationships among the variables are positive and significant at the 0.05 significance level. It is revealed that the weakest relationship is between card product features and the general structure of the bank (0.289). In contrast, the strongest relationship is between integrated marketing communication and card product features. All values, except for one, are higher than 0.3. Along with the impact of a large number of samples, it is possible to claim that the variables included in the table are moderately related to each other (Gürbüz & Şahin, 2018).

#### 4.2. Regression Analysis and Interpretation of Results

Multiple regression model is established to investigate the extent to which the variables affecting card usage preferences of corporate customers is explained by other variables such as brand/image, proximity, customer relations management, the general structure of the bank, card product features, cash management services of the bank and integrated marketing communication. The data associated with the model are included in Table 7.

The model was significant at the ( $F = 151.326$ ,  $p < 0.05$ ) level. The cashless society process variance, which is the dependent variable, can be well explained by the model. Multiple relationships among the variables are at a level that can be considered strong ( $R = 0.69$ ). 48% of the cashless society process (dependent variable) is explained by the independent variables such as brand/image, proximity, customer relations management, the bank's general structure, card product features, cash management services of the bank, and integrated marketing communication.

**Table 7:** Findings and Coefficients of the Multiple Regression Model

Independent Variables	Dependent Variable: Cashless Society				
	$\beta$	t	p-value	Tolerance	VIF
Card Product Features	0.23	8.143	.000**	0.553	1.81
General Structure of the Bank	0.2	7.708	.000**	0.675	1.48
Proximity Factor	-0.08	-2.762	.006**	0.536	1.87
Integrated Marketing Communication	0.07	2.229	.026*	0.444	2.25
Cash Management Services of the Bank	-.045	-1.466	0.143	0.486	2.06
Customer Relations Management	0.21	7.863	.000**	0.647	1.55
Brand/ Image	0.32	12.58	.000**	0.691	1.45
R <sup>2</sup> =.48		F(7.1147)=151.326		p-value=.000	

Upon including all independent variables in the model, the bank variable's cash management services ( $\beta = -0.045$ ,  $p > 0.05$ ) do not have a significant contribution. "Hypothesis 5" is not accepted. The proximity factor ( $\beta = -0.08$ ,  $p < 0.05$ ) variable negatively affects the cashless society process (dependent variable) at the 0.05 significance level. "Integrated marketing communication ( $\beta = 0.071$ ,  $p < 0.05$ )" variable affects the dependent variable at a 5% level; whereas other independent variables such as "brand / image ( $\beta = 0.322$ ,  $p < 0.05$ )", "customer relations management ( $\beta = 0.208$ ,  $p < 0.05$ )", "general structure of the bank ( $\beta = 0.200$ ,  $p < 0.05$ )", and "card product features ( $\beta = 0.233$ ,  $p < 0.05$ )" affect the dependent variable positively at the 0.05 significance level. Hypotheses 1, 2, 3, 4, 6, and 7 are accepted. There is no "multicollinearity" in the model since the tolerance values are small, the VIF values are lower than 5, and R<sup>2</sup> is lower than 0.90 (Gujarati & Porter, 2012).

As a result of the research, six factors that affect the bank's corporate customers' card usage are detected. The first factor contains the features of the used cards. It is seen that the most important issue by corporate customers is the variable "the number of installments is higher than of other cards." The most important issue involves the fact that the card used by corporate customers contributes to the cycle of their commercial activities in terms of days payable outstanding (DPO). Variables in the factor, such as "offering the opportunity to postpone or skip installments without

interest, apply more sectors and installments, and have a long due date,” are also associated with the DPO. Moreover, customers wish to acquire gifts and economic advantages due to their expenses while using their cards. It is seen that corporate customers also attach importance to this feature, which has been added to commercial cards in the recent past.

It is observed that corporate customers care about the bank's general structure, whose credit cards they use, and their physical and emotional proximity to the relevant bank, and this situation is considered to be closely associated with their corporate vision. It is especially noteworthy what the employment of the person with whom they make emotional acquaintances at the bank whose card they use to the relevant factor. This situation, which contradicts with cashlessness, is thought to decrease the importance of such factors due to the adoption of improvements in digital payment systems by corporate customers.

Another factor, namely, the variable of the high number of member businesses with whom the card program is contracted, makes the highest contribution to the cashless community process. Furthermore, the variables such as the prevalence of POS devices of the bank, the quality of mobile, internet, and telephone banking services, the importance of innovation, the suppliers'/ vendors' preferences of the card brand, the card brand that allows shopping and cash withdrawal in various parts of the world also contribute to the factor. Variables related to the degree of marketing and product perception of customers constitute the integrated marketing communication factor. The features, such as quality consultancy and support services, informative product advertisements compatibility with other digital products, and sponsorship services, contribute to the product. The importance of the elements that provide operational convenience is perceived with the correct use of figures, content, and channels. Institutions and organizations in the payments sector are expected to pay attention to the issues specified in their products' design.

Besides the degree of satisfaction customers would have along with the cash management services of the bank whose cards they use, the “customer relations management” strategies that the banks implement are also taken into consideration. They prefer to use cash management products such as DDS / dealer cards, POS and checkbooks, and to use the card of the bank in which the cash flow takes place. Here, the high levels of commercial credit limits and commercial card limit determined by the relevant bank matter much. The last factor affecting corporate customers' card usage habits is the brand and image of the card. Although products such as “cash management services of the bank,” which do not have a significant impact on the cashless society dependent variable, are cash alternatives, they pose as substitutes for electronic cashless products, especially commercial cards. The “proximity factor” variable, which inversely affects the “cashless society process” variable, mostly consists of sub-variables that constitute the emotional or physical proximity preferences of the firm’s partners and/or decision-makers. The aforementioned features are those that contradict both digital transformation and cashless society processes. The acceptance status of the hypotheses is presented in Table 8.

**Table 8:** Hypothesis Results

Hypotheses		Acceptance Status
H <sub>1</sub>	The impact of card usage characteristics (independent variable) on the cashless society (dependent variable) which is one of the factors that affect the card usage preferences of corporate customers, is statistically significant.	Accepted
H <sub>2</sub>	The impact of the general structure of the bank (independent variable) on the cashless society (dependent variable). which is one of the factors affecting the card usage preferences of corporate customers, is statistically significant.	Accepted
H <sub>3</sub>	The impact of proximity (independent variable) on the cashless society (dependent variable). which is one of the factors that affect the card usage preferences of corporate customers, is statistically significant.	Accepted
H <sub>4</sub>	The impact of integrated marketing communication (independent variable) on the cashless society (dependent variable). which is one of the factors affecting card usage preferences of corporate customers, is statistically significant.	Accepted
H <sub>5</sub>	The impact of bank cash management services (independent variable) on the cashless society (dependent variable). which is one of the factors that affect the card usage preferences of corporate customers, is statistically significant.	Rejected
H <sub>6</sub>	The impact of customer relationship management (independent variable) on cashless society (dependent variable). which is one of the factors affecting card usage preferences of corporate customers, is statistically significant.	Accepted
H <sub>7</sub>	The impact of brand/image (independent variable) on cashless society (dependent variable), which is one of the factors affecting card usage preferences of corporate customers, is statistically significant.	Accepted

## 5. CONCLUSION

In the study, first of all, regarding the commercial card usage, which has an important role in the cashless society process and is also an indispensable product for the banking sector; the crucial factors for the corporate segment customers' view of card usage trends are revealed. The world is rapidly breaking free from the influence of traditional payment value chains. A process through which the cash usage is gradually decreasing, the uses of the internet and mobile technologies are enhancing, and digital money gains importance is being experienced. Many stakeholders have discussed this process, including banks, payment system organizations, technology enterprises, and policy-making institutions and organizations. The magnitude of the anticipated benefit results in support of the majority of stakeholders toward the process. The global COVID-19 pandemic, which broke out in 2019, was an important catalyst that accelerated the cashless society process. The progress of the cashless society process is possible with the rise in mobile and card payments. At this point, the use of the card and mobile technologies is of key importance, especially for small payments in retail and relatively large amounts of transactions realized by enterprises with their suppliers. In the empirical study, it is concluded that the card usage of corporate customers would positively affect the cashless society process. According to the research findings, 6 factors affecting the card usage of the bank's corporate customers are determined. These factors consist of card product features, the general structure of the bank, proximity, cashless society, integrated marketing communication, and brand/image. They expect that the cards used by corporate customers would contribute to themselves, especially in terms of the due date and economic advantages. Corporate customers predominantly prioritize using the cost and time value of money. They prefer to take part in the cash flows of the bank whose card they use and to use the card of the bank's branch with which they work and feel physically or emotionally sincere. The card's ease of use, its strong and innovative technological support are also popular product features. Integration with developing technologies such as ERP

(Enterprise Resource Planning) and e-invoice systems as well as the card's image are also extremely important.

It is seen that the promotion of commercial card usage can provide the national economy as well as the card users, suppliers, and card organizations with serious benefits. The increase in card usage, the rise in tax revenues due to the decline in informality, decrease in tax burden, aggravation of social justice in tax, decrease in cash distribution costs, and decline in social costs would positively affect GNP. Card users would have advantages such as the ease of due date, supply and operation, effective accounting and purchasing control, and lesser price difference. The suppliers' preference for electronic card payments would also provide them with advantages similar to those of the buyers. The ability to collect receivables is one of the most important of these advantages. Card issuing institutions and payment system organizations would also increase their revenues due to the transaction volume rise.

Taking advantage of the research study's findings, the products and services to be improved with the measures to be taken would contribute to both the increase in card usage in commercial payments and the cashless society process. Banks and payment system organizations need to support payment system products for the sake of their corporate customers in terms of technology, cost, and diversity. Providing extra opportunities such as miles points, gifts, etc., would increase card usage. Being aware of such an increase in income is as important as the increase in the seller's and buyers' revenues from the card usage. Moreover, mobile technologies should be more integrated into card payment systems, and elements such as security, convenience, and speed should be improved by diversifying innovative products. Technological innovation would create both cost-reducing and productivity-enhancing impacts for card users, banks, and payment system organizations. Banks' websites, e-mail, and social media applications should be used more effectively for both necessary disclosure and digital marketing. By utilizing data mining and customer analytics, recognizing and segmenting customers would contribute to the processes. Investments for the product should entirely cover the cards and member enterprises, and it should not be forgotten that an egg-chicken dilemma exists.

It is of great importance to reduce the technological, legal, administrative, and economic barriers on the system that generate a delaying effect to aggravate commercial card usage and, thus, reduce cash usage. Public authorities, regulatory bodies, universities, innovation centers, banks, payment system organizations, fintech, investors, and large enterprises need to assemble for this purpose. Increasing the efficiency of technoparks within the university would contribute to this process. Also, it should be ensured that universities' technology education programs are developed and that foreign human resources are used effectively by utilizing improving online technologies.

It is necessary to increase the implementations aimed at accelerating the application of PSD 2 and open banking practices. Following the enactment of Law No. 7192, the introduction of the Central Bank of the Republic of Turkey (CBRT) as the only competent authority is expected to contribute to effective coordination. The Fast and Secure Transfer (FAST) system implemented by the CBRT as a pilot service is quite valuable. Thus, the Real Time Gross Settlement System (RTGS) application in payment systems has been initiated. Furthermore, the use of e-government applications should be increased, the scope of remote access to government services should be expanded by courtesy of digital signatures and applications, and the use of applications in payment systems should be ensured. A unique "Business Identification Number" system, which would be used for legal entities and the Citizen Identification Number used for individuals, should be introduced. It is possible to establish this structure by combining chamber identification numbers and tax identification numbers.

Digital and crypto money systems should be integrated into payment systems. Studies on the Central Bank Digital Currency (CBDC) should be accelerated. Determining the constraint of stakeholders' rights and responsibilities in payment systems structure is the most important issue for users in terms of reliability. Mobile phone and wallet, cloud, and artificial intelligence technologies should be improved in this direction. All necessary measures should be taken for data security and the protection of personal information. International payment institutions should also be integrated into the system from this point of view. Speed and security should be provided concurrently, and one

should not be preferred over the other. Necessary precautions should be taken, especially in case of cyber-attacks. In this regard, competition would be increased by reducing bank dependency, and financial stability would be supported by reducing credit risk. On the other hand, learning from other countries' experiences should not entirely limit the facilities of public's access to cash. Thus, innovations in the world's advanced countries in this domain may be attainable for Turkey. The measures and incentives to be taken by the government in the field of tax and registration order would also positively affect the commercial card usage by corporate customers. The applications such as "not using individual credit cards in commercial purchases, ensuring automatic integration of commercial card transactions into business books and records, making certain transactions mandatory to record tax expenses, providing tax incentives to make and receive payments using commercial cards, and to reduce informality" would stimulate tax revenues and GNP at the end of the day.

The research has several methodological limitations. In the study, corporate customers in the Istanbul province are taken into account, and it would increase the study's efficiency if it were conducted in other cities and countries. Mobile and other electronic payments, which are among the factors affecting the Cashless Society, and the electronic payment habits of individual customers, can also be examined. It would also be striking to investigate the impacts of the pandemics, which have recently come to order, on the cashless society process.

## KAYNAKÇA

Arango, C., Huynh, K.P. ve Sabetti, L. (2015). Consumer Payment Choice: Merchant Card Acceptance Versus Pricing. *Journal of Banking&Finance* (55), 130-141.

Aytekin, A. ve Yücel, Y. B.. (2017). Yeni Ödeme Teknolojilerinin İş Hayatına Etkileri. *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi*, 4(12), 11-33.

Bankalararası Kart Merkezi. (2018). *Keşif: Blockchain'in Sırları. Deneysel Çalışma*, İstanbul: BKM

Banklararası Kart Merkezi. (2020). *Ürünler ve Hizmetler*. Web Site, Retrieved 26 November 2019 www.bkm.com.tr

Bayrakdaroğlu, A. ve Altuntaş, Y.. (2015). Bankaların Kredi Kartı Kullanımını Yaygınlaştırmada Uyguladıkları Satış Geliştirme Faaliyetleri Üzerine Bir Araştırma. *Finansal Araştırmalar ve Çalışmalar Dergisi*, 7(12), 41-64.

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S. ve Hess, J.. (2018). *The Global Database Findex 2017-Measuring Financial Inclusion and the Fintech Revolution*. Washington DC: World Bank Group

Elgin C., Erzan R., Kuzubaş U. (2015). *Türkiye'de Nakit ve Kart Ödemelerinin Karşılaştırmalı Maliyeti*. İstanbul: Mastercard Türkiye

Göl, H., İlhan, E., Ot, İ., Döm, İ. ve Çakır, İ.. (2019). *E-Ticaretin Gelişim, Sınırların Aşılması ve Yeni Normlar. Araştırma*, İstanbul: TÜSİAD & Deloitte Digital.

Gujarati, D. N. ve Porter, D.C.. (2012). *Temel Ekonometri, Çeviren Ümit Şenesen ve Gülay Günlük Şenesen*. İstanbul: Literatür Yayıncılık.

Gürbüz, S. ve Şahin, F.. (2018). *Sosyal Bilimlerde Araştırma Yöntemleri (5.Baskı)*. Ankara: Seçkin Yayıncılık.

Hair, Jr., J. F., Black, W.C., Babin, B.J. ve Anderson, R.E.. (2014). *Multivariate Data Analysis*, Harlow: Pearson Education Limited.

Hasan, I., De Renzis, T. ve Schmiedel, H.. (2012) *Retail Payments and Economic Growth. Resorch*, Helsinki: Bank of Finland Resorch Discussion

Herbst-Murphy, S.. (2011). *Getting Down to Business: Commercial Cards in Business-to-Business Payments. Discussion Paper*. www.philadelphiafed.org.

Jenkins. P(2018) *Whe don' t take cash: Is this future at money ?*. Retrieved 26 November 2019 www.ft.com

Kaya, F.. (2008). *Kredi Kartları ve Bireysel Müşterilerin Kredi Kartı Tercihine Etki Eden Faktörlerin Belirlenmesi Üzerine Bir Araştırma*. Yayınlanmamış Doktora Tezi, Kadir Has Üniversitesi, İstanbul.

- Kumari, N. ve Khanna, J.. (2017). Cashless Payment: A Behaviourial Change To Economic Growth. *International Journal of Scientific Research and Education*, 7 (7), 6701-6710.
- Kurtuluş, K.. (2014). *Araştırma Yöntemleri*, Türkmen Kitapevi, İstanbul.
- Tunçsiper, K. N. (2018). www.zraporu.com. 1 Aralık 2018. <https://www.zraporu.com/finans/dunya-para-basma-usleri/> (25 November 2019 tarihinde erişilmiştir).
- Sato, S. ve Humphrey, D. B.. (1995). Transforming Payment Systems : Meeting the Needs of Emerging Market. World Bank Discussion Paper.
- Mishkin, F. S.. (2000). *Finansal Piyasalar ve Kurumlar*. Çeviren İlyas Şıklar, Ahmet Çakmak ve Suat Yavuz. İstanbul: Bilim ve Teknik Yayınevi.
- Tee, Hock-Han, ve Hivay-Boon Ong.. (2016). Cashless Payment and Economic Growth. *Springer Open*, 7 April: 1-9.
- Van Steenis, H.. (2019). *Future of Finance*. *Araştırma, Bank of England*, Londra: Bank of England.
- Zengin, B. ve Güngördü, A.. (2013) Elektronik Ödeme Sistemlerinin Olası Etkileri Üzerine Bir İnceleme. *Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 15 (3), 129-150

## EXTENDED SUMMARY

### Purpose

The study aims to determine the card usage preferences of corporate customers, which are among the factors affecting the cashless society process and examine the impacts of these preferences on the cashless society process.

### Methodology

The population of the research study consists of corporate customers using debit and/or credit cards issued by commercial banks. The sample of the research study is comprised of commercial card users living in Istanbul province. Responses are obtained for 1,200 questionnaire forms. The obtained data are analyzed in terms of accuracy and consistency, and the data collection process is finalized as soon as questionnaires are responded to by 1,155 participants that are found to well represent the population of the study.

The questionnaire forms consist of two parts and contain statements that measure demographic characteristics and concepts. Demographic characteristics consist of items, such as the firm's turnover, number of employees, and the sector in which it operates, which describe the firm and its corporate representative who responds to the questionnaire. In the second part, there are statements regarding the banking card usage habits of the firms, the determinants of both cash and card usage, the characteristics of the cards they prefer to use frequently, and the characteristics of the card-issuing banks. The responses given to the items in the scale are provided with a 5-point Likert type measurement. In the generation of the scale used in the study, the literature and the experience of the researcher were utilized based on the measurement tool developed by Kaya (2008) to determine the card usage habits of individual customers.

The following hypotheses are tested in the study:

H<sub>1</sub>: The impact of card usage characteristics (independent variable) on the cashless society (dependent variable), which is one of the factors that affect the card usage preferences of corporate customers, is statistically significant.

H<sub>2</sub>: The impact of the general structure of the bank (independent variable) on the cashless society (dependent variable), which is one of the factors affecting the card usage preferences of corporate customers, is statistically significant.

H<sub>3</sub>: The impact of proximity (independent variable) on the cashless society (dependent variable), which is one of the factors that affect the card usage preferences of corporate customers, is statistically significant.

H<sub>4</sub>: The impact of integrated marketing communication (independent variable) on the cashless society (dependent variable), which is one of the factors affecting card usage preferences of corporate customers, is statistically significant.

H<sub>5</sub>: The impact of cash management services of the bank (independent variable) on the cashless society (dependent variable), which is one of the factors that affect the card usage preferences of corporate customers, is statistically significant.

H<sub>6</sub>: The impact of customer relations management (independent variable) on cashless society (dependent variable), which is one of the factors affecting card usage preferences of corporate customers, is statistically significant.

H<sub>7</sub>: The impact of brand/image (independent variable) on cashless society (dependent variable), which is one of the factors affecting card usage preferences of corporate customers, is statistically significant.

1,155 responses, which well represent the population, are analyzed with the instrument of the SPSS 23.0 software.

### Findings

Exploratory factor analysis is applied to the obtained data in the study. As a result of the research, 6 factors that affect the card usage of the bank's corporate customers are detected. The first factor contains the features of the used cards. It is seen that the most important issue by

corporate customers is the variable “the number of installments is higher than of other cards”. The most important issue involves the fact that the card used by corporate customers contributes to the cycle of their commercial activities in terms of days payable outstanding (DPO). Variables in the factor, such as “offering the opportunity to postpone or skip installments without interest, apply more sectors and installments, and have a long due date” are also associated with the DPO. Moreover, customers wish to acquire gifts and economic advantages due to the expenses they make while using their cards. It is seen that corporate customers also attach importance to this feature, which has been added to commercial cards in the recent past.

Another factor, namely, the variable of the high number of member businesses with whom the card program is contracted, makes the highest contribution to the cashless community process. Furthermore, the variables such as the prevalence of POS devices of the bank, the quality of mobile, internet, and telephone banking services, the importance of innovation, the suppliers’/ vendors’ preferences of the card brand, the card brand that allows shopping and cash withdrawal in various parts of the world also contribute to the factor. Variables related to the degree of marketing and product perception of customers constitute the integrated marketing communication factor. The features, such as quality consultancy and support services, informative product advertisements compatibility with other digital products, and sponsorship services, contribute to the product. The importance of the elements that provide operational convenience is perceived with the correct use of figures, content, and channels. Institutions and organizations in the payments sector are expected to pay attention to the issues specified in the design of their products.

Besides the degree of satisfaction customers would have along with the cash management services of the bank whose cards they use, the “customer relations management” strategies that the banks implement are also taken into consideration. They prefer to use cash management products such as DDS / dealer cards, POS and checkbooks, and to use the card of the bank in which the cash flow takes place. Here, the high levels of both commercial credit limits and commercial card limits determined by the relevant bank especially matter much. The last factor affecting the card usage habits of corporate customers is the brand and image of the card. Although products such as “cash management services of the bank”, which do not have a significant impact on the cashless society dependent variable, are alternatives to cash, they pose as substitutes for electronic cashless products, especially commercial cards. The “proximity factor” variable, which inversely affects the “cashless society process” variable, mostly consists of sub-variables that constitute the emotional or physical proximity preferences of the firm’s partners and/or decision-makers. The aforementioned features are those that contradict both digital transformation and cashless society processes.

### **Conclusion and Discussion**

According to the study findings; Among the factors that affect the card usage habits of commercial customers, card product features, the general structure of the bank, proximity, integrated marketing communication, customer relationship management, and brand/image factors are related to the cashless community process, it was determined that there was no relationship between the bank cash management services” and “cashless community process.

Taking advantage of the findings of the research study, the products and services to be improved with the measures to be taken would contribute to both the increase in the card usage in commercial payments and the cashless society process. Banks and payment system organizations need to support payment system products for the sake of their corporate customers in terms of technology, cost, and diversity. Providing extra opportunities such as miles points, gifts, etc. would increase card usage. Being aware of such an increase in income is as important as the increase in the revenues of the sellers and buyers from the card usage. Moreover, mobile technologies should be more integrated into card payment systems, and elements such as security, convenience, and speed should be improved by diversifying innovative products.