Perceptual exploration of credit cards' adoption: Customer perspective

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CHRONICLE	ABSTRACT
	Despite the increased dissemination of online tools to execute financial transactions, the level of credit card usage adoption among consumers still encounters many challenges. The dissemination and adoption of credit cards to execute online purchases is influenced by certain factors that impact customers' consumption behavior. Exploring and perceiving these factors and challenges is imperative for enhancing the operations of online businesses. This study aims to examine specific factors that affect the adoption of credit cards among customers within the Jordanian online market. The factors this study explores are: Expenditure Level, Welfare of the Individual, Psychological Behavior, Credit Card Knowledge, Regulations and Laws and, finally, Theft and Fraud. This research was conducted through employing the quantitative approach; utilizing a questionnaire on a total of (335) credit card users in Jordan. The research subjects were credit card users (customers) from three Jordanian banks: Arab Banking Corporation, Housing Bank for Trade and Finance, and the Bank of Jordan. The study findings indicated that 'Individual Welfare' and 'Psychological Behavior' are the strongest influential factors on individuals' adoption of credit cards, followed by 'Theft and Fraud', 'Laws and Legislation', 'Credit Card Knowledge' and 'Expenditure Level' respectively in influence. The study recommendation encourages banks to focus more on increasing their clients' awareness regarding credit cards usage in order to enhance their perception of how to behave in case of fraud and theft and increasing their clients' awareness of the financial burdens, pitfalls, and tricks while using a credit card. Moreover, it suggests that banks should increase their marketing efforts for credit cards which can change the behavior and acceptance of individuals towards credit cards adoption.

1. Introduction

Many factors and tools change the customer purchasing behavior within the business environment. It started with the appearance of banks, which supported individuals' financial behavior. Followed by tools, which came along with the existence of banking such as saving accounts, deposits, liquidity and other services presented for individuals through banks (Omarova & Tahyar, 2011). The banking services shifted into a higher level when Henry Ford presented to the world a mass production of car; after that, banks started to look for ways in which individuals can spend their money without the need to carry out cash money with huge numbers all around their movement from a place to another (Khare et al., 2012). According to Limbu (2017) USA presented in 1920 the idea of 'Plastic Money' known today as credit cards. The initiative of these cards took place among oil companies and hotel chains which issued them to their favored customers. With the course of time and the appearance of mass production the idea of credit cards was well received and appeared in its peak in 1950 when the 'Bank of America' realized that issuing and using credit cards can be seen as a type of mass-market business.

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Now people depend on credit cards as an approach to avoid carrying real cash money around, or as an approach to control and limit their spending. With the ongoing technological booming and the increase in the financial transactions over the internet, a space for fraud and theft was generated, which enabled some techs to hack into cards and steal money. Therefore, the need increased for additional control over credit cards usage and individuals' awareness towards this type of financial transactions (Papadopoulos and Brooks, 2011).

1.1 Credit Cards and Online Banking

The Credit Card industry is growing by the day with increasing clientele. Along with the rise of credit cards, the online banking industry was also growing in parallel. The major factor that has contributed to this growth is rapid expansion of the information and communication technologies. The development and their penetration into the society have made it into a new form of banking and exchange across the globe where transactions occur across borders in a matter of few seconds (Mercatanti and Li, 2014).

A Credit Card is a widely used payment instrument wherein there are two parties involved: the issuer and the holder. A Credit Card can be defined as "a payment card that is issued to that users and which can be used for making payments during the purchase of goods and services from merchants in exchange for a promise of future repayment to the issuer of the credit card" (O'Sullivan and Sheffrin, 2013, p. 261). The idea here is that the issuer provides the holder with the credit to make purchases at present with a future promise of repayment.

While 'Online Banking' or 'Internet Banking' can be defined as the internet portal through which users can use various kinds of banking services starting with bill payments to making investments (Al-Rfou, 2013). The emergence of this facility is associated with the emergence of information and communication technology worldwide. This phenomenon has enabled wireless transactions across the world where it is possible to make instantaneous transactions globally. Individuals are now able to make transactions on the go with just a device with an internet connection, making banking services accessible from almost anywhere.

The idea of internet banking did not emerge in vacuum. It provided banks with competitive advantage and increased the flexibility of operations by reducing the costs (Al-Rfou, 2013). In today's world, it has become a very essential feature of the banking industry, revolutionizing payments and exchange. However, these benefits come with their own set of challenges and technology is expected to resolve these encounters in the future.

2. Literature Review

Wang (2017) study explored the factors influencing credit card usage in China. Quantitative approach was employed and 309 questionnaires were distributed. Results of the study indicated that many factors play a role in defining how individuals see the usage of credit cards. These factors were (age, educational degree, income, and consumption) as demographic variables, in addition to other factors that played a role in supporting the use of credit cards among individuals which included (safety and security, regulations, awareness, fees and the acceptance of cards in different places). The study recommended increasing the acceptance of credit cards among stores and shopping malls as this would increase the adoption of credit cards among customers. Furletti and Smith (2005) noted that when arguing how a bank system can protect the security of their clients based on regulations and standards that guarantee the rights of clients in case of security malfunction or theft. Another study by Alfred et al. (2016) aimed at studying the factors that influence the adoption of credit cards within the financial institutions in Rwanda. Using the quantitative approach, the researchers distributed a questionnaire to (62) individuals. The results of the study indicated the existence of many factors that have the ability to change how individuals foresee the usage and adoption of credit cards. Those factors included (income level, awareness, cost of using, the informed consents of the usage process and the knowledge of an individual of how to manage this type of purchase through credit cards). Otieno and Olweny (2013) tried to examine the role of fees and cost in changing the usage and acceptance of credit cards among individuals in Kenya. The researcher employed the quantitative methodology and distributed a questionnaire to (150) credit card holders within Nairobi County in Kenya. Results of study indicated that among the factors that seemed to have an influence on individuals' acceptance and usage of credit cards included (fees, cost of living, financial independence, shift in carrying real money and the degree of spread of card acceptance in different places). The study recommended that banks should increase the degree of clients' awareness in dealing with credit cards. Mayabi (2015) tried to examine the factors that play a role in defining the adoption of individuals of credit cards in Kenya. The researcher depended on the quantitative methodology in distributing a total of (300) questionnaires on card holders who dealt with commercial banks within Nairobi County. Results of the study indicated that individuals are mostly influenced by the markets and shopping parties which accept credit cards. That means that the more shops and stores accepting credit cards the more individuals are willing to use them. In addition to that, the study findings indicated that there is a tendency in Kenya that supports the shift from the regular hard cash money to the usage of credit cards. The study recommended the increase of credit card knowledge among individuals, which, consequently, will influence and increase the adoption of credit cards.

3. Theoretical Model

There are several theoretical frameworks that explain the adoption of credit cards. The first theoretical approach is the 'Transactions Cost Theory'. This theory considers the cost incurred for the consumer while making payments every time a purchase is being made. The process of making payment in cash during every single purchase may be a time-consuming process for many consumers. While providing a one-time payment option that reduces the transaction cost for the holders, it gives them the liberty to choose when they would want to make these payments. This sort of convenience, associated with these cards, makes it a viable option both psychologically, as well as economically. When consumers are making purchases, they are in a position of disadvantage, especially, because they do not have knowledge about the product in ways that the producer does. This puts customers in a rather vulnerable position wherein they are exposed to any form of cheating or dissatisfaction with the product. In this situation, the use of credit cards comes as a shield for the consumers by providing them some time and security with purchases. Customers can easily seek a refund if they are not satisfied with the services or the product. While doing so, the consumer will be having the support of the financial institution that issued the card, making it mandatory for the seller to make the refund. The use of credit cards can be based on highly utilitarian choices. As explained by the above factors, there are considerable costs that are involved in making general payments for consumers. They may take the form of transaction costs or costs of preventing risks, insuring purchases and so on. These costs vary for different kinds of consumers and when these costs are significantly higher than the interests being paid, individuals may consider the choice over other payment modes, encouraging the use of credit cards (Ibid, 2010).
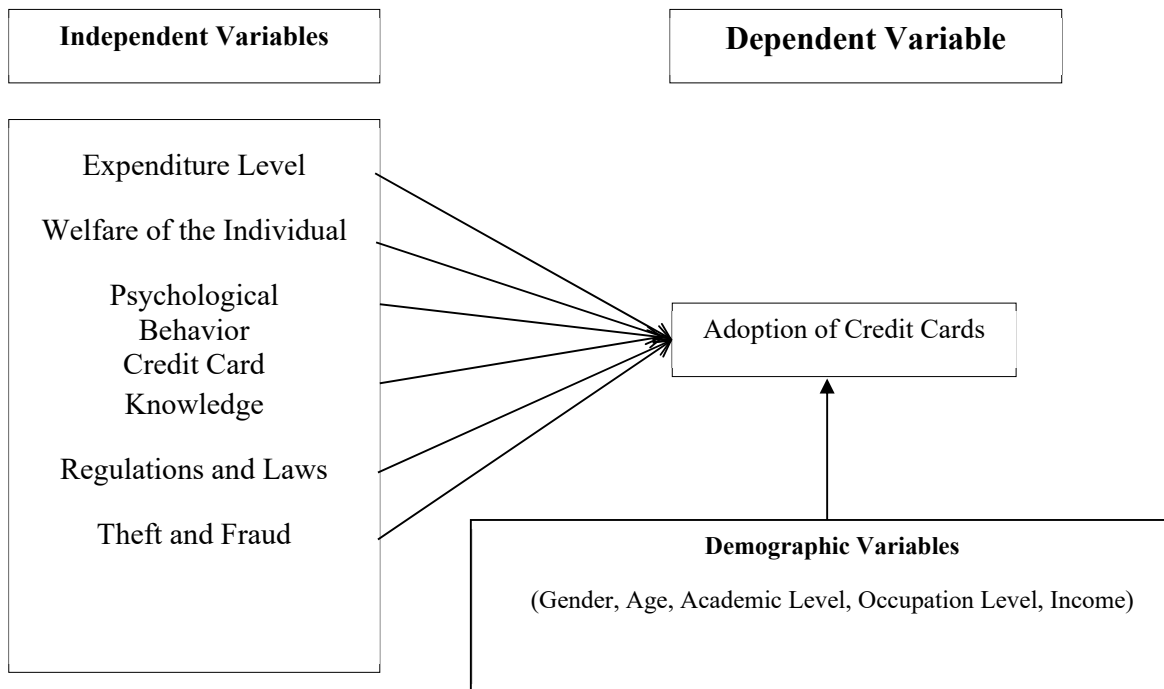
Model of Study

Fig. 1. Study Model (Semeraro, 2012; Kim, 2014; Van, 2014; Setiawan, 2015)

4. Research Method and Methodology

This research adopts quantitative methodology. A quantitative methodology according to Wiersma and Jurs (2005, p.15) is "a research method dealing with numbers and anything that is measurable in a systematic way of investigation of phenomena and their relationships". In the case of this research study, the quantitative methodology is used to measure the influence of dependent variables (Expenditure Level, Welfare of the Individual, Psychological Behavior, Credit Card Knowledge, Regulations and Laws, Theft and Fraud) on the independent variable (Adoption of Credit cards).

4.1 Population and Sample of Study

The research population as according to Asiamah et al. (2017) refers to all the human factors, which are involved in the main idea of the research and constitutes the problem's setting. Individuals within the study population have to enjoy shared and common aspects and characteristics which make them suitable to form the overall population of the study and withdraw the sample from. As for study samples, according to Alvi (2016, p.11) a sample is defined as a "group of relatively smaller numbers of people selected from a population for investigation purpose, the members of the sample are called as participants".

4.2 Population

According to the annual statistics report by the Central Bank of Jordan; the total number of credit cards users reached 3 million users until 2017 (Financial Stability Report CBJ, 2018). This means that the total number of study population according to the source - bearing in mind that the study only took into account users of credit card– was huge and it is impossible for the researcher to seek all users and apply the study on them.

4.3 Sample

In order to increase the validity of the research, a simple random sample was withdrawn from the total population. Simple Random Sample (SRS) was defined by Tongco (2007, p.147) as "a method of selection of a sample consisting of N number of sampling units out of the population having N number of sampling units such that every sampling unit has an equal chance of being chosen". The final sample of this current research was chosen to be (300) individuals from credit card users withdrawn from the population of 3 million. The sample was determined based on Sekaran (2003) who argued that the sample of (300) is suitable when the population is in millions.

4.4 Data Collection

The data collection process depends on the instrument used in the research to gain data from in addition to the sources which were adopted to form the theoretical framework of research (Shareia, 2016). In the current research; there are two main sources from where the data was retrieved; the first is the sources of information while the second was the instrument used in the research.

4.5 Data Sourcing

Current research depended on two main sources for data which are:

The primary data, which is reached using the instrument (tool) of study after applying it on the sample. The secondary data, which is the total articles, previous studies, books and journals which were used to form the theoretical background of this research.

4.6 Research Instrument (Tool)

Questionnaire is the main instrument used to collect this research's data. This research's questionnaire consisted of two main parts. The first part included five questions and took into perspective the demographics of the study sample including (Gender, Age, Qualification, Income and Type of Work). While the second consisted of statements related to the dependent variables of the study including (Expenditure Level, Welfare of the Individual, Psychological Behavior, Credit Card Knowledge, Regulations and Laws, Theft and Fraud). The number of this part's questions was twenty-nine.

4.7 Scale of Instrument

Instrument of study was based on 5 Likert-Scale items, with scores ranging from 1 'Strongly Disagree' to 5 'Strongly Agree'. Based on the chosen scale of the instrument; statistically there was three levels of importance to the questionnaire statements. The following table highlighted these levels according to the formula:

The length category = (The upper limit of the alternative - the minimum of the alternative) / Number of levels. = (5 - 1) / 3 = 1.33. The level importance was used as follow (1.00 – 2.33/Low, 2.34 – 3.66/Medium, and 3.67 – 500/High.

The level of importance regarding each statement which was taken into consideration through the process of analysis; the table highlighted the range in which the statements will be ranked between (low- medium – high) in importance. The range was taken as within the mean of the scale, which is 3.00, based on that, statements which scores higher than the mean of the scale were high, those which sored within the mean range were seen to be medium, while statements' mean below the mean of the scale were seen to be low.

4.8 Data Screening and Processing

After gathering the data from the questionnaires; respondents' answers were downloaded on the main analysis software which was Statistical Package for Social Sciences (SPSS) in order for the data to be screened. After the screening; data were processed and calculated using statistical tests (Regression, Descriptive Statistics and ANOVA). Through the application process; a total of 384 questionnaires were distributed on the sample. 335 questionnaires were retrieved from respondents of three banks and 49 questionnaires were not handed out back by the respondents. During the data entry on SPSS; researcher found that only (300) were able to be entered as the remaining (35) weren't properly filled. So, based on the above table, it can be said that the response rate reached 87.1% of the original sample which is a statistically accepted rate.

4.9 Ethics of Research

Ethical code is among the most important factors that guarantee the best and most accurate data collection in social research. Ethics in research refer to the moral aspects which were taken into consideration through the process of carrying out a research

from the beginning till its end. The researcher in current research depended on the ethical guideline of the British Educational Research Association (BERA) of 2011. In that sense, the researcher followed two main ethical aspects:

- Ethics towards society of social research in terms of the authenticity of the research, there was no plagiarism and every aspect taken from an external source was properly cited and referenced.
- Ethics towards participants in the research. In that sense, participants had the needed awareness of their role in the research. Research participants were not pressured to take part and they had the freedom to withdraw from the research whenever they wanted. They weren't asked to present any sensitive information and they were told that any information they give will be used for academic purposes only, and that this information won't be shared with a third party.

4.10 Data Statistical Analysis

This section is divided into three sections; the first presents results of Demographic Variables analysis, second section presents analysis to participants' responses to questionnaire statements, while the third and last section presents testing of study hypotheses.

4.11 Distribution According to Sample Characteristics

This section provides general information regarding the sample of the study in terms of (Gender, Age, Academic Level, Income and Occupation/Job). Fig. 2 presents the respondents' demographic characteristics.
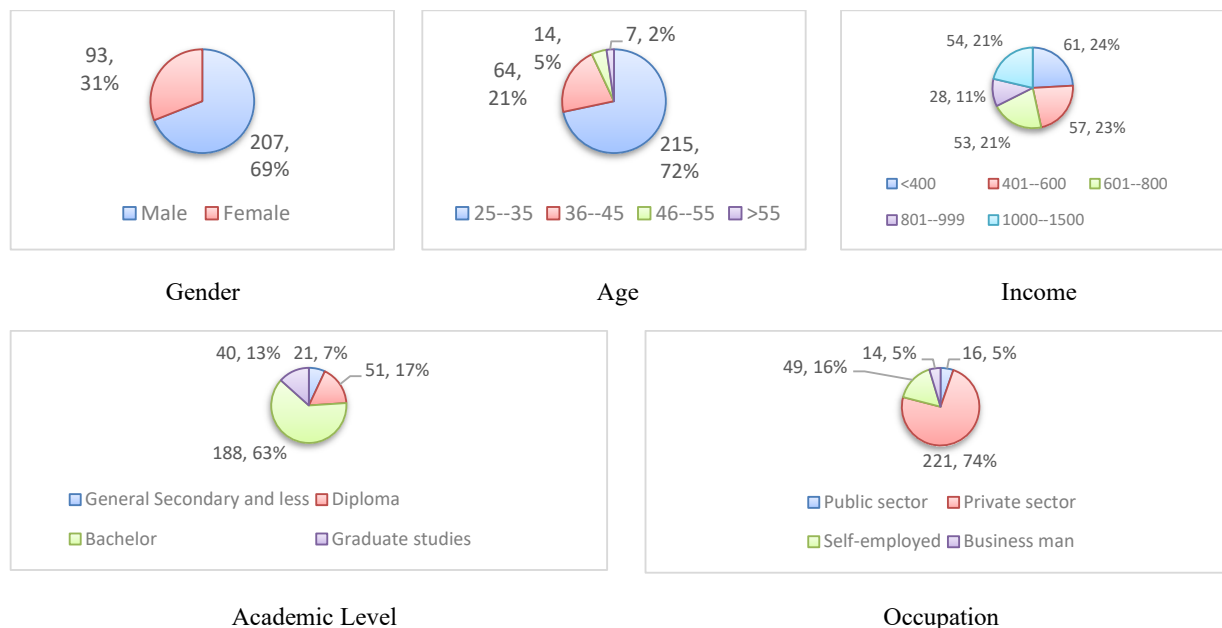

Fig. 2. Sample Distribution According to Gender, Age, Academic level, Income, and Occupation (300 Respondents)

According to Fig. 2, results indicate that the **Gender** of the majority of the sample answering the questionnaire were males, with frequency of (207) individuals forming 69% of the total sample compared to females who formed 31% of the sample with frequency of 93 females. This can indicate that given the nature of the Jordanian household; males are responsible for purchasing and running the finances in the house which explains the high percentage of males compared to females. It can be seen in Fig. 2, that 71.6% of the sample were within the **Age** range of 25-35 years with a frequency of 215 individuals. In the second rank came individuals within the age range of 36-45 forming 21.3% of the sample with a frequency of 64 individuals. The last rank within the sample was individuals within the age range of +56 forming 2.4% of the sample. This indicates that individuals within the younger age range appeared to be more convinced with the usage of credit cards compared to the older individuals who still deal with cash and believe only in carrying money around.

Fig. 2 above highlights the results of the sample according to **Academic Level**, it appears that the majority of the sample held bachelor degrees forming 62.7% with a frequency of 188 individuals. On the other hand, the lowest percentage was for individuals who had high school or less with a frequency of 21 individuals forming 7% of the sample. This indicates that the academic level has an influence on the awareness degree of individuals towards the idea of using credit cards. It appears in table (1) results, that the majority of the sample was within the **Income** range of (400) JOD, with 61 individuals forming 20.3% of the sample. In the lowest rank came individuals who had the income range of 801-999, with a frequency of 28 individuals forming 9.3% of the sample. Surprisingly; individuals within less than (400) JOD income appeared to use credit cards more than those with higher income range; this was attributed to the banks and their procedures in facilitating credit card loans for individuals who can't afford buying items and needs in cash. Results of **Occupation**, as shown in table (1)

above, it appears that the majority of the sample worked within the private sector with a frequency of 221 individuals forming 73.7% of the sample. This gives an indication that banks normally give facilities for private business in Jordan in order to increase liquidity and support the use of credit cards among individuals.

4.12 Questionnaire Analysis

This section presents the analysis of sample responses regarding the questionnaire statements. Mean, standard deviation and rate were used in order to show the range in the answers. The section was divided as according to the study variables; variables' results were shown in a separate table as follows:

Table 1
The Use of Credit Cards Among Individuals (Dependent Variable)

#	Credit Cards Adoption Statement	Mean	Std. Deviation
1	I prefer to use a credit card regularly.	2.863	1.206
2	I use my credit card in emergency.	3.100	1.140
3	I rarely like to use a credit card and prefer to make payment through cash.	3.274	1.180
4	I occasionally use a credit card for only specific purchases.	3.260	1.157
	Average	3.124	1.171

According to Table 1, it appears that individuals had a positive attitude towards the use of credit cards as statements scored higher than the mean of scale (3.00). The most influential statement was "I rarely like to use a credit card and prefer to make payment through cash" which indicates that the culture of Jordanian society still depends on cash in making purchase decisions rather than credit cards. This indicates that individuals still depend on paying cash money and use credit cards for emergencies only.

Table 2
Independent Variables Results

#	Expenditure Level of the Individual Statements	Mean	Std. Deviation	Rate
1	I find that a credit card controls my expenditure generally.	2.790	1.171	Moderate
2	It is possible through the use of a credit cards to set a relevant plan for my spending	3.090	1.134	Moderate
3	Using a credit card affects the level of my expenditure.	3.550	1.076	Moderate
4	Credit card works to improve my desire to increase saving.	2.620	0.819	Moderate
	Average	3.013	1.050	Moderate
#	Welfare of the Individual Statements	Mean	Std. Deviation	Rate
5	Using a credit card leads to financial crisis /difficulty to me.	3.324	1.247	Moderate
6	Using a credit card without control leads to great loan on users.	4.201	1.007	High
7	Users sometimes have to get loans to pay a credit cards amount.	3.863	1.025	High
	Average	3.796	1.093	High
#	Psychological Behavior Statements	Mean	Std. Deviation	Rate
8	Increasing the level of the provided services and benefit motivate users to use a credit card more	4.201	1.007	High
9	Having a credit card for users motivate to make purchases.	3.863	1.025	High
10	There is a desire to own a credit card because it allows me to shop even when I have no money	3.727	0.988	High
11	users of credit card realize the benefits of use credit card	3.805	0.976	High
12	I perceive dealing with providers of credit cards directly achieves better services.	3.679	1.183	High
13	I perceive the desired benefits when I use their the credit card.	3.275	1.086	Moderate
	Average	3.758	1.044	High

As it appeared in Table 2, all statements regarding **expenditure level of individuals** using credit cards are ranked as moderate. Although; not all of the statements were influential given that they didn't all score higher than 3.00 to be positive. The most influential statement appeared to be "Using a credit card affects the level of my expenditure." Scoring a mean of 3.55 with a Std of 1.076 marking the statement as positively received by individuals. This idea appeared by Soman and Cheema (2012) who argued that the use of credit cards can influence purchase and spending decisions among individuals leading to higher purchases and expenses which influences the individuals' ability to control their expenses. Also, Soman (2010) noted that the payment mechanism is the first and most influential factor that controls the individuals' spending behavior which leads to the fact that using credit cards can leave no control over individuals in their purchasing behavior and the decision making process to purchase.

It appears that the study sample had a positive attitude towards the above **Welfare of the Individual** statements as mentioned in Table 2, bearing in mind that all of them scored a mean above 3.00 of the scale. The most influential statement appeared to be "Using a credit card without control leads to great loans for users." With a mean of 4.201, this leads to the fact that the sample had the awareness that using credit cards can lead individuals to lose control over their spending and causing them debit and loans.

All of the statements regarding the **psychological behavior** as it appears in Table 2, came to be influential and positively received by individuals as they all scored higher than the mean of the scale 3.00. The most influential statement appeared to be "Increasing the level of the provided services and benefits motivates users to use a credit card more". This revealed that the system sometimes encourages individuals to use credit cards with all the facilities that are being given. In addition to that, going through the markets nowadays it can be seen that more than 95% of stores and shopping malls accept credit cards as a form of payment which also supports the individuals' decision to use a credit card for a certain purchase decision. This idea was noted through a study by Runnemark et al. (2015) who argued that individuals tend to spend more using credit cards due to the lack of cash money reality and the fact that they are paying without the need to carry on actual money.

On the other hand, Hershfield et al. (2015) argued that the psychology of human beings tends to leverage more when using a credit card compared to real money, in addition to that, using credit cards have the ability to decrease the responsible sense of humans in making purchase decisions leading to more spending.

Table 3
Independent Variables Results (Continue)

#	Credit Card Knowledge Statements	Mean	Std. Deviation	Rate
14	I use a credit card based on my previous experiences.	3.458	1.036	Moderate
15	Advertising repetition influence to the adoption of a credit card.	3.575	1.058	Moderate
16	It is possible through advertising to build a clear mental image about the mechanism of using credit card.	3.474	1.146	Moderate
17	Friends and relatives influence my decisions to use credit cards.	3.164	1.101	Moderate
18	I have many previous attitudes to adopt use credit cards.	3.132	1.104	Moderate
19	Using a credit card helping satisfying my needs and desires.	2.613	1.214	Moderate
20	Media has a significant influence in determining consumer attitudes toward credit card adoption	3.09	1.165	Moderate
	Average	3.215	1.118	Moderate
#	Laws and Legislations Statements	Mean	Std. Deviation	Rate
21	There are some lacking in legislations that organize using credit cards	3.333	1.112	Moderate
22	There are some complexity of laws, regulations, and policies that protect consumers when they experience a problem with credit card.	3.33	1.116	Moderate
	Average	3.332	1.114	Moderate
#	Theft and Fraud Statements	Mean	Std. Deviation	Rate
23	The fraud is the oldest form of credit cards problem.	3.428	1.028	Moderate
24	I decline to use a credit card because of the spread of theft and fraud phenomenon.	3.345	1	Moderate
25	Credit card loss may cause a fake card to be used for theft and fraud	3.631	1.063	Moderate
	Average	3.468	1.03	Moderate

In Table 3, results indicate that respondents had positive attitudes towards **Credit Card Knowledge** statements of variables as most of the statements scored higher than the mean of the scale 3.00. The most influential statement appeared to be "Advertising repetition influence to the adoption of a credit card" scoring a mean of 3.575. This means that marketing campaigns and promotion strategies have the power to encourage individuals to increase their use of credit cards. They are basically promoting the fine and positive aspects of credit cards without noting the negative influences of them.

The same idea was noted by Kamleitner and Erki (2013) who argued that the marketing campaigns can influence customers' behavior towards a certain purchase decision leading to more spending and increasing their knowledge regarding credit cards' benefits. Li, et al. (2010) noted the same idea of marketing influence on using credit cards. Authors argued that marketing strategies through commercial banks focuses on the lifestyle of individuals which impacts their purchase behavior and psychology leading to more spending and more relying on credit cards.

In examining Table 3, it can be seen that respondents had a positive attitude towards **Laws and Legislations**, as its statements scored higher than the mean of the scale 3.00. The most influential statement was "There are some lacking in legislations that organize using credit cards" with mean of 3.333 referring to the fact that individuals had the needed awareness regarding credit cards and the legal infrastructure of using them through highlighting that there is a lack in legislative structure in carrying out such service among banks. Results of **Theft and Fraud** as presented in Table 3, it appears that respondents had a positive attitude towards statements of variables as they all scored higher than the mean of the sale 3.00. The most influential statement appeared to be "Credit card loss may cause a fake card to be used for theft and fraud" with a mean of 3.631 referring to the statement as positive. Kosse (2013) noted the fact that individuals tend to be more careful in using credit cards due to the possibility of theft and fraud and the sensitivity of the money issue. Table 4 shows the relationship between the dependent and independent variables. It appears that the most influential factors that have the ability to influence the adoption of credit cards are (Welfare and Psychological Behavior) as they have ranked as high with means of 3.796 and 3.758 respectively. As for other variables (Theft and Fraud, Laws and Legislation, Credit Card Knowledge and Expenditure Level) they appeared to have a moderate influence. In an overall look, variables appeared to have a moderate influence on the adoption of credit cards among individuals within the Jordanian commercial banks.

Table 4

Relation Between Dependent and Independent Variables

Level of Importance	Variables	Mean	Std. Deviation	Rate
Independent Variable "Factors Influencing the Adoption of Credit Cards"				
1	The Level of Welfare	3.796	1.093	High
2	Psychological Behavior	3.758	1.044	High
3	Theft and Fraud	3.468	1.030	Moderate
4	Laws and Legislation	3.332	1.114	Moderate
5	Credit Card Knowledge	3.215	1.118	Moderate
6	Expenditure Level	3.013	1.050	Moderate
All Factors		3.348	1.106	Moderate
Dependent Variable				
Adoption of Credit Cards	3.124	1.171	Moderate	Adoption of Credit Cards

4.13 Hypotheses Testing

This section is divided into two main parts; the first part presents the testing of the main hypothesis, while the second part presents the testing of the sub-hypotheses.

4.13.1 Main Hypothesis

H₁: There is a significant impact of (Expenditure Level, Welfare of the Individual, Individual Psychological Behavior, Credit Card Knowledge, Regulations and Laws, Theft and Fraud) on the adoption of credit cards in the Jordanian commercial markets.

Table 5

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.465	0.216	0.200	0.79648

Table 6

ANOVA Independent Variables on the use of Credit Cards

Model		Sum of Squares	Df	Mean Square	F	Sig.	result
1	Regression	51.153	6	8.529	13.439	.000ᵇ	accepted
	Residual	185.238	292	0.643			
	Total	236.392	298				

Table 7

Coefficients Multivariate Regression Morality Sub Variables

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.101	0.480		2.292	0.023		
Expenditure Level	0.075	0.068	0.063	1.095	0.275	.799	1.252
Welfare	-.024-	0.057	-.023-	0.413	0.680	.882	1.134
Psychological Behavior	0.089	0.082	0.063	1.080	0.281	.783	1.278
Credit Card Knowledge	0.029	0.087	0.021	0.336	0.737	.656	1.525
Laws and Regulations	-.011-	0.055	-.012-	0.193	0.847	.675	1.481
Theft Fraud	0.429	0.062	0.416	6.896	0.000	.737	1.356

According to tables (5-6-7) the main hypothesis was accepted and there appeared to be an influence of the mentioned variables on the adoption of credit cards among individuals of commercial banks in Jordan. So, based on the above tables and the rest of the main hypothesis, and with an R value of (0.465) it appeared that the null hypothesis was rejected. This proves that there is a significant impact of (Expenditure Level, the Welfare of the Individual, the Individual Psychological Behavior, Credit Card Knowledge, Regulations and Laws, Theft and Fraud) on the adoption of credit cards in the Jordanian markets.

5. Discussion

This study worked on investigating the factors that affect the credit cards adoption for payments and purchasing behavior among consumers in Jordan. General findings of the statistical analysis were as follows:

-        Majority of respondents were males, which indicated that the financial manager of the Jordanian households is normally the male. Males in Jordan tend to control the finances and the ordinary purchases decisions.

-        Most respondents who responded to the questionnaire had an income level of less than 400 JOD. This revealed that individuals within this range of income depend on credit and debit cards for making the needed purchases for their household. This is due to the fact that they didn't enjoy a high level of income.

-        Individuals within the age range of 25-35 seemed to be more interested in using credit cards, compared to those with a higher age range. This can be attributed to the fact that youth tend to make impulsive purchase decisions depending on credit cards compared to older individuals who are known to be wiser in making the purchases.

-        The majority of the study sample held the bachelor degree; this can be attributed to the fact that for an individual to have an account and use a credit cards they have to be employed with a salary; this is attributed to the recruitment laws in Jordan which limits the employment of individuals who weren't exposed to proper education.

-        The majority of the sample seemed to be working within the private sector. This was attributed to the fact that commercial banks depend on the private sector in increasing their liquidity due to the flexibility of the private sector's regulations. For that point, most individuals within the private sector are granted facilities and support to gain profit from dealing with commercial banks.

-        Comparing variables taken into consideration (Expenditure Level, Welfare of the Individual, Psychological Behavior, Credit Card Knowledge, Regulations and Laws, Theft and Fraud) it appears that individuals' welfare and psychological behavior are the most influential factors that control the adoption of credit cards among individuals.

-        Theft and fraud, laws and legislation, credit card knowledge and expenditure level came to be in the 2nd rank of influence respectively. This indicated that all given variables appeared to have an influence over the adoption of credit cards among individuals.

-        All hypotheses of study were accepted referring to an existence of influence from mentioned variables over credit cards adoption.

It appeared from the analysis that all taken variables had an influence on credit card adoption among individuals. This revealed that the variables of choice were suitable to tackle the main problem of study and that there is an undeniable influence of those variables on the intention of an individual to use credit cards.

In that sense, welfare is influential in encouraging individuals to use credit cards; that idea appeared also with Rojas Breu (2013) who noted the fact that the welfare of individuals usually gives an access to credit cards' benefits. He also added that individual welfare can increase the margin of spending.

Similarly, Stegman and Faris (2015) mentioned that the more money an individual makes the more they are able to use a credit card given the nature of banks and banking regulation which gives a wider space for wealthy individuals to get the most credit cards. This adds to the idea that individuals with higher lifestyles are mostly dependent on credit cards as they are free from debit and loans compared to those who are bound to bank loans and have installments schedules that they need to cover.

Also, it appeared through the analysis that the expenditure level has an influence on individuals' adoption of credit cards. This was seen to be totally true given that almost all previous studies (e.g. Sprenger and Stavins, 2008; Fineberg, 2013; Agarwal and Zhang, 2015) noted the same idea. In that sense, Sprenger and Stavins (2008) said that the more the spending limit of an individual is, the more they are likely to use credit cards. Fineberg (2013) also noted that individuals who tend to spend a lot and have a heavy spending on daily bases are most likely to use credit cards due to their spending behavior and their inability to carry around massive amounts of cash everywhere they go. Agarwal and Zhang (2015) agreed on the same idea arguing that individuals with a high level spending behavior depend on credit cards due to the hardships of carrying around cash money. They also argued that most individuals who depend on credit cards may have a certain type of behavior that is more impulsive. This means that they make a lot of impulsive purchase decisions, which supports their intention and acceptance to use credit cards even sometimes on daily bases.

The psychological behavior appeared to be among the influential aspects that may have an impact over the intention of an individual to use a credit card. The idea of psychological behavior came out to be influential given the concepts of marketing and promotion which can change the behavior and acceptance of individuals towards credit cards adoption. Hunter and Heath (2017), in their study, found that the idea of psychological behavior can influence the customer behavior in terms of how they evaluate their purchase choices and make their purchase decisions. In addition to that, psychological behavior was found to be influential also on customers in terms of using credit cards for the sake of making payments. The authors noted the fact that the adoption of credit cards usually influences how individuals react towards a certain purchase decision (e.g. discount, impulsive buying decision, sale and holidays). Hershfield et al. (2015) saw the psychological effects of using credit cards as appealing to individuals to use them. Banks are mostly following a certain procedure in marketing for their services. Banks are totally aware that marketing has an impact on how an individual reacts to a certain service or item. Based on that, commercial banks usually depend on benefits, refunds and giveaways for individuals who use their credit cards (e.g. 2.5% refunds, gift cards with every purchase, premium cards). Through this approach banks attract more customers based on manipulating their psychology and convince them that they are basically making more profit when they use their cards. Mansfield et al. (2012) noted that many banks are using different approaches to influence the psyche of their clients and attract them for loans, financial facilities and credit benefits. On the other hand, Fineberg (2013) approved that these strategies are working well. Consequently, every year more individuals are becoming involved with banks for the sake of gaining the benefits that they look for on the basis of total contentment that they are the winning party, while in fact the opposite is the truth. Through the

analysis, results indicated that laws, legislations and regulations have influence on individuals' adoption of credit cards. This was agreed on by Acikalin (2015) who argued that banks were created in order to protect and make benefits of individuals' money, so banks are normally looking to make profit out of that based on attracting more and more clients into dealing with them. The idea of attracting more customers is based on making all the possibilities for them easy access and more detailed expectation of what they are dealing with. This can be seen as an approach for banks to get loose regulation so they can attract more customers and generate more profits.

6. Research Contribution and Recommendations:

The current study plays a role in defining the nature of customer behavior within a financial scheme. Individuals are sensitive when it comes to money and seek to find the best and most reliable bank to run their financial transactions based on trust and security. The adoption of credit cards has been in a lot of debate referring to the degree of security, specifically, with the ongoing developments in technology and the various ways that bank accounts are being cyber hacked. Based on that, this study argues on the most influential reasons and circumstances that may change a customer's behavior towards the idea of utilizing credit cards, what motivates them to use credit cards and what are the basics that may encourage clients to depend on credit cards for their daily purchases. Recommendations can be categorized in two levels: the practical level in terms of individuals using credit cards, and the theoretical level which focuses on future research.

As for the practical recommendations, the study recommends that banks should focus more on increasing their clients' awareness and knowledge regarding credit cards adoption in order to widen their awareness of how to behave in case of fraud and theft. Banks should put more effort when marketing for credit cards in making individuals more aware of the financial burdens, pitfalls, and tricks when using a credit card. In terms of the theoretical recommendations, the study recommends that researchers may conduct a research examining the role of points and rewards programs in banks in increasing individuals' desire to use credit cards. Moreover, carry out research that examines the relationship between using credit cards and health issues on the hypothesis that using credit cards can increase unhealthy food purchase.

References

Acikalin, S. (2015). Use of Credit Cards Before and After Bank and Credit Cards Law No.5464 in Turkey1. *Journal of Economics and Development Studies*, *3*(4), 13-18.

Agarwal, S., & Zhang, J. (2015). A review of Credit Card Literature: Perspectives from Consumers. https://www.fca.org.uk/publication/market-studies/review-credit-card-literature.pdf.

Alfred, K., Tobias, O., & Zenon, M. (2016). Factors Influencing the Adoption and Usage of Credit Cards in Financial Institutions of Rwanda: Case Study of I&M Bank (Rwanda). *International Journal of Thesis Projects and Dissertations (IJTPD), 4*(2),125-133.

Al-Rfou, A. N. (2013). The Usage of Internet Banking Evidence from Jordan. *Asian Economic and Financial Review, 3*(5), 614-623.

Alvi, M. (2016). A manual for Selecting Sampling Techniques in Research. MPRA Paper No. 70218, posted 25 March 2016. https://mpra.ub.uni-muenchen.de/id/eprint/70218.

Asiamah, N., Mensah, H. K., & Oteng-Abayie, E. F. (2017). General, Target, and Accessible Population: Demystifying the Concepts for Effective Sampling. *The Qualitative Report*, *22*(6), 1607-1621.

Central Bank of Jordan. (2018). Financial Stability Report. http://www.cbj.gov.jo/EchoBusv3.0/SystemAssets/PDFs/EN/Financial%20Stability%20Report%202017Final%203-1-2019.pdf.

Fineberg, G. (2013). Mobile Credit: The Effect of Credit Cards on Consumer Spending in the United States in the Second Half of the Twentieth Century. *Penn History Review*, *20*(1), 93-120.

Furletti, M., & Smith, S. (2005). The laws, Regulations, and Industry Practices that Protect Consumers who use Electronic Payment Systems: Credit and Debit Cards. *Federal Reserve Bank of Philadelphia Discussion Paper*, (05-01).

Hershfield, H. E., Sussman, A. B., O'Brien, R. L., & Bryan, C. J. (2015). Leveraging Psychological Insights to Encourage the Responsible Use of Consumer Debt. *Perspectives on Psychological Science*, *10*(6), 749-752.

Hunter, J. L., & Heath, C. J. (2017). The Relationship Between Credit Card Use Behavior and Household Well-Being During the Great Recession: Implications for the Ethics of Credit Use. *Journal of Financial Counseling and Planning*, *28*(2), 213-224.

Kamleitner, B., & Erki, B. (2013). Payment Method and Perceptions of Ownership. *Marketing Letters*, *24*(1), 57-69.

Khare, A., Khare, A., & Singh, S. (2012). Factors Affecting Credit Card use in India. *Asia Pacific Journal of Marketing and Logistics*, *24*(2), 236-256.

Kim, C. (2014). Credit cards: Weapons for Domestic Violence. *Duke J. Gender L. & Pol'y*, *22*, 281-309.

Kosse, A. (2013). Do Newspaper Articles on Card Fraud Affect Debit Card Usage?. *Journal of Banking & Finance*, *37*(12), 5382-5391.

Li, W., Wu, X., Sun, Y., & Zhang, Q. (2010). Credit Card Customer Segmentation and Target Marketing Based on Data Mining. *In Computational Intelligence and Security (CIS), 2010 International Conference on* IEEE (73-76).

Mansfield, P. Pinto, M., & Robb, C. (2012). Consumers and Credit Cards: A Review of the Empirical Literature. *Journal of Management and Marketing Research*, *12*, 1-26.

Mayabi, R. (2015) Factors Influencing use of Credit Cards in Kenyan Commercial Banks in Nairobi County, Kenya. *International Journal of Finance*, *5*(4), 345-349.

Mercatanti, A., & Li, F. (2014). Do Debit Cards Increase Household Spending? Evidence from a Semiparametric Causal Analysis of a Survey. *The Annals of Applied Statistics*, *8*(4), 2485-2508.

Omarova, S. T., & Margaret E. T. (2011). That which we Call a Bank: Revisiting the History of Bank Holding Company Regulations in the United States. *Rev. Banking & Fin. L.* 31: 113.

O'Sullivan, A., & Sheffrin, S. (2013). *Economics: Principles in Action.* New Jersey: Pearson Prentice Hall.

Otieno, C., & Olweny, T. (2013). How Cost Influences Uptake of Credit Cards in Kenya. *International Journal of Science and Research*, *6*(14), 373-378.

Papadopoulos, A., & Graham, B. (2011). The Investigation of Credit Card Fraud in Cyprus: Reviewing Police "Effectiveness". *Journal of Financial Crime*, *18*(3), 222-234.

Rojas B., M. (2013). The Welfare Effect of Access to Credit. *Economic Inquiry*, 51(1), 235-247.

Runnemark, E., Hedman, J., & Xiao, X. (2015). Do Consumers Pay More Using Debit Cards than Cash?. *Electronic Commerce Research and Applications*, *14*(5), 285-291.

Sekaran, U. (2003). *Research Methods for Business: A skill-building Approach* (4th ed.), Danvers, MA: *John* Wiley & Sons, New York**.**

Semeraro, S. (2012). Assessing the Costs & Benefits of Credit Card Rewards: A Response to Who Gains and Who Loses from Credit Card Payments-Theory and Calibrations. *Loyola Consumer Law* Review, *25*(1), 30-85.

Setiawan, I. (2015). Regulation of Unauthorized ATM/Debit Card Transactions and Consumer Protection in Indonesia: a Critical Analysis of Law and Practice. Doctor of Philosophy thesis, School of Law, University of Wollongong. https://ro.uow.edu.au/theses/4836.

Shareia, B. F. (2016). Qualitative and Quantitative Case Study Research Method on Social Science. *International Journal of Economics and Management Engineering, 10*(12), 3839- 3844.

Soman, D. (2010). Effects of Payment Mechanism on Spending Behavior: The Role of Rehearsal and Immediacy of Payments. *Journal of Consumer Research*, *27*(4), 460-474.

Soman, D., & Cheema, A. (2012). The Effect of Credit on Spending Decisions: The Role of the Credit Limit and Credibility, *Marketing Science*, *21*(1), 32-53.

Sprenger, C., & Stavins, J. (2008). Credit card debt and payment use. Working Papers 08-2, Federal Reserve Bank of Boston.

Stegman, M. A., & Faris, R. (2015). Welfare, work and banking: The Use of Consumer Credit by Current and Former TANF Recipients in Charlotte, North Carolina. *Journal of Urban Affairs*, *27*(4), 379-402.

Tongco, M. D. C. (2017). Purposive Sampling as a Tool for Informant Selection, *Ethnobotany Research and applications*, *5*, 147-158.

Van R. W. (2014). Consumer Financial Behavior. *Foundations and Trends in Marketing*, 7(4), 231-351.

Wang, Y. (2017). Consumer Credit Card Use Intention and Influence Factors Analysis. In MATEC Web of Conferences, vol. 100, p. 05073. EDP Sciences.

Wiersma, W., & Jurs, S. G. (2005). *Research methods in education: An introduction*. Boston, MA: Ally and Bacon.

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