PUBLISHING

Research Article

© 2020 Baño et.al. This is an open access article licensed under the Creative Commons Attribution-NonCommercial 4.0 International License (https://creativecommons.org/licenses/by-nc/4.0/)

Received: 11 January 2020 / Revised: 10 February 2020 / Accepted: 11 February 2020 / Published: 10 March 2020

The Intention of Indebtedness with a Credit Card, an Application of the Theory of Planned Behaviour

Maria Mercedes Baño

PhD(c), CENTRUM Católica Graduate Business School, Lima- Perú, Pontificia Universidad Católica del Perú, Lima, Perú; Universidad Católica de Santiago de Guayaquil, Guayaquil, Ecuador

Sergio J. Chión

PhD, CENTRUM Católica Graduate Business School, Lima-Perú; Pontificia Universidad Católica del Perú, Lima, Perú

Raúl H. Barriga

PhD, ESPOL Polytechnic University, Escuela Superior Politécnica del Litoral, ESPOL, Facultad de Ciencias Sociales y Humanísticas, Campus Gustavo Galindo Km. 30.5 Vía Perimetral, P.O. Box 09-01-5863, Guayaquil, Ecuador

Doi: 10.36941/mjss-2020-0019

Abstract

The goal of this research is to study the factors that determine the intention of unsecured personal debt with credit cards using the Ajzen Planned Behavior Theory model (1991). Using the data of 450 Ecuadorian professionals and a model of structural equations estimated by partial least squares, the attitudes, subjective norms and perceived control that guide people towards the intention of this debt were identified. The importance of this study is its contribution to understanding the factors that determine the intention of personal indebtedness in emerging economies, expanding the study population to the professional sector. The transversal study has a quantitative design and its purpose is explanatory correlative. The hypothesis evidence and the results show that the Ajzen Planned Behavior Theory model (1991) is a predictive model of the intention to borrow by credit card in Ecuadorian professionals. The proposed model contributes with new individual and contextual factors that demonstrate the particular importance of knowledge of credit cards (CONTC), lifestyle (ESTV) and past behaviour (CPAS) in predicting the intention of debt (INTEND). Furthermore, due to the cultural characteristics of each region of Ecuador, the results are compared between the cities: Guayaquil (Costa) and Quito (Sierra).

Keywords: Debt, Credit Cards, Personal Finance, Indebtedness

1. Introduction

Due to the proliferation and access to credit cards, people are more likely to buy on credit. However, although many consumers use their credit card correctly, others seem not to manage the expenses (Mansfield, Pinto & Robb, 2013). The indebtedness with a credit card means postponing the payment

ISSN 2039-2117 (online)	Mediterranean Journal of Social Sciences	Vol 11 No 2
ISSN 2039-9340 (print)	www.richtmann.org	March 2020

of the values consumed to future periods supported by bank fees for debt financing. The emphasis of this study was on unsecured debt because it usually results from unplanned consumption (Brown, Taylor and Wheatley, 2005).

This study demonstrated with empirical evidence the difference in the intention of indebtedness of credit cardholders of Guayaquil and Quito. The results supported experts' opinions about the behaviour of cardholders of these two cities, regarding the appropriate use of credit cards and the money. Also, this research aims to contribute with a dimension for measuring the attitude towards indebtedness with credit cards. This new dimension has not included in previous studies, and it is relevant for the proposed research.

The study aimed to determine the factors that explain the intention of unsecured personal indebtedness with credit cards in Ecuador using multivariate statistical analysis. The researchers used a second-order structural equations model to find causal relationships between attitudes, subjective norms, perceived control and intention of indebtedness. The sample consisted of 450 professionals resident in the two main cities of Ecuador.

2. Theoretical Framework and Hypothesis Development

The literature and studies related to the consumption of goods and services with credit cards highlight the importance of understanding the determinants for the use of this payment method in emerging economies (Mansfield et al., 2013). The irresponsible way of using credit cards based on irrational behaviour waiting future income higher than the current one (Soman & Cheema, 2002) facilitate individuals to make immediate purchases. These payments could be deferred increasing levels of personal indebtedness (Livingstone & Lunt, 1992). As time passed, the studies on credit cards aimed to know the determinants in the use of this payment method.

According to the Theory of Planned Behaviour (TBP) of Ajzen (1991), behavior and intention of individuals are a function of attitudes, subjective norms and perceived control over such behavior. In essence, TBP (Ajzen, 1991) deals with the prediction of intentions that make up the relationships between attitude, subjective rules and perceived control, support and explain behavioural intentions. Studies on credit card indebtedness have shown a variety of factors that influence this behaviour. However, they were not consistent in their results, so that Lea, Webley and Walker (1995) claimed that there is no association between debt and attitude, however, these results show that psychological and behavioural variables influence individuals in their decision to get a credit.

2.1 Attitude (ACT) and the intention of indebtedness (INTEND)

Brayfield and Crockett (1955) were the first to demonstrate the link between attitude and behaviour. Later this statement was empirically confirmed by the experiments of Ajzen and Fishbein (1977). These studies showed that the personal characteristics and mental attributes of individuals have a significant impact on how they act (Phan, Wong & Wang, 2002). In the area of credit card indebtedness, authors like Kim and Devaney (2001) have highlighted the importance of the general attitude and credit card indebtedness, concluding that there is a relationship between the attitude and the intention of indebtedness through this payment method. The authors contributed to the literature with the definition of measurement variables such as: (a) financial knowledge, (b) risk and (c) the individual's planning horizon. From this perspective, behavioural attitudes are activated automatically by the relationship with an object. Based on these antecedents, it is assumed that:

H1: The attitude towards the indebtedness positively influences the intention of personal indebtedness not guaranteed with credit card.

2.1.1 Financial knowledge (CONFIN) and the attitude towards the indebtedness (ACT)

Financial knowledge is an integral dimension of financial literacy (Huston, 2012) which comes from a

ISSN 2039-2117 (online)	Mediterranean Journal of Social Sciences	Vol 11 No 2
ISSN 2039-9340 (print)	www.richtmann.org	March 2020

wide source with varying levels of quality and reliability, including formal and informal education (Dick, Jaroszek et al., 2013; Glaser, 1984; Raju, Lonial & Mangold, 2015). It is divided into two components (a) objective and (b) subjective (Chisholm, 1989; Flynn & Goldsmith, 1999; Raju et al, 2015; Woodyard & Robb, 2012). According to Brucks (1985), objective financial knowledge is a real understanding that possesses the individual, which is measured by some type of evidence and previous experience, while subjective financial knowledge represents the perception of knowing that an individual has and how it relates to his experience. In the field of financial knowledge to predict the attitude of financial behaviour, we highlight the results of Flynn and Goldsmith (1999)which showed that subjective financial knowledge was significantly related to attitudes and opinions on a given fact.

As far as debt is concerned, Robb and Woodyard (2011) have stated that there is no strong positive effect between subjective financial knowledge and credit card use. Similarly, Woodyard and Robb (2012) have stated that subjective financial knowledge seems to be the most crucial factor in determining the financial capacity of the individual. Finally, Tang and Baker (2016) also contributed to the fact that subjective financial knowledge is closely related to product or service experience and consumer confidence in their ability to make effective decisions.

2.1.2 Risk tolerance (TR) and attitude towards the indebtedness (ACT)

Concerning risk tolerance, there is no consensus in the literature on the relationship with debt; so, Crook (2001) has established that there is an inverse relationship between risk tolerance and debt demand by individuals. On the other hand, Duke and Rosenthal (1993) demonstrated that families with a higher risk aversion consumed with a credit card. The authors stressed that this behaviour is the result of many people's fear of incurring formal debts with high-value or long-term financial institutions. In turn, prefer to borrow with credit cards even if the costs may be higher.

Finke and Huston (2003) explained the influence of risk on debt decision how the willingness to take risks rationally. Brown, Garino and Taylor (2013) explained that one of the reasons why risk tolerance affects attitudes is the lack of measurement about risk preference at home and individually.

2.1.3 Planning horizon (HPL) and attitude towards the indebtedness (ACT)

About planning horizons, Godwin (1998) stressed that people prefer to consume today rather than in the future, this discovery was also confirmed by Kim and Devaney (2001) who said that the longer planning horizons for saving or investing would be concerning the use of credit cards. On the other hand, Aizenman (1990) indicated that the planning horizon has an impact on consumption and, consequently, on the indebtedness caused by such consumption.

An extension of the time horizon will lead to higher current consumption, which will cause debt accumulate at a faster rate. Long and Siebert (1988) concluded that the amount of debt is independent over time. However, the decision to take or not a debt depends on the time horizon. Therefore, it is essential to consider the planning horizon as a dimension in measuring the attitude towards the indebtedness with a credit card.

2.1.4 Credit card knowledge (CONTC) and attitude towards the indebtedness (ACT)

Besides to the observable variables defined by the studies of Chien and Devaney (2001), Kim and Devaney (2001), the literature review has allowed recognizing a new variable related to credit card knowledge. According to the theory of knowledge (Chisholm, 1989), it is produced at the precise moment in which one individual believes to know something. However, the conviction that he has is not related to the fact that he knows. This theory bases its precepts on the relation with the object and argues that knowledge depends on a series of social relationships that show its unnatural character. In the debt studies, Danes and Hira (1980) showed that there is a positive relationship

between knowledge and attitude towards indebtedness. Other authors (Glaser, 1984; Kinsey & Mcalister, 1981) attributed this relationship to the confidence generated in the individual when he makes decisions based on information. Thus, while an individual believes to know more than one topic, he will have the ability to make an assertive decision

2.2 Subjective norms (NS) and the intention of indebtedness (INTEND)

Based on the TBP of Ajzen (1991) the behaviour of the individual is also influenced by subjective norms. These norms include the beliefs of individuals about themselves and others. These norms assess social pressures on individuals to perform a particular behaviour (Ajzen, 1985). Conner and Armitage (1998) indicated these norms established lifestyles of individuals and expectations about the people around affects their consumption decisions. From this point of view, people who want to maintain a lifestyle based on their environment are more likely to buy impulsively, an activity that is easier to do with credit cards (Khare, 2013).

In this sense, Katz (1997) distinguished between basic needs and those related to leisure needs and unnecessary expenses. He suggested that credit card indebtedness is associated with this type of expenses and they were the result of social pressures over the individual. According to Hayhoe, Leach, Allen and Edwards (2005); Kerr and Dunn (2008) and O'Neill (2012) the subjective norms can be measured by (a) influence of friends and family, (b) the lifestyle and (c) subjective moral. Based on these antecedents, it is assumed that:

H2: The subjective norms towards the indebtedness positively influence the intention of personal indebtedness not guaranteed with credit card.

2.2.1 Influence of friends and family (IFAF) and Subjective norms (NS)

Clyde (2008) studied the influence of friends and relatives in the use of credit cards. He demonstrated that the responsibility of the credit card user is shared with the environment in which he develops. This finding was also confirmed by Fraczek and Klimontowicz (2015) who demonstrated that individuals are aware of their financial decisions, in particular, those related to choosing banking products or services. In their research, they have shown that the choice follows non-economic criteria, highlighting the image and opinion of friends and family.

2.2.2 Lifestyle (ESTV) and Subjective norms (NS)

The role that the credit card plays for an individual to achieve a particular lifestyle through consumption is essential. In this sense, Conner and Armitage (1998) reported that lifestyle influences in credit card usage decision. The individual wishes to maintain a lifestyle comparable to the reference groups of his environment. On the other hand, Bernthal, Crockett and Rose (2005) stressed that the importance of lifestyle in the use of credit cards goes beyond its use as a tool to strengthen purchasing power, but besides, this can be a stimulus for the pathological behaviour of the consumer. Thus, credit cards are indicators of consumption obtained immediately; facilitating a level of participation in the culture of contemporary consumption, which is qualitatively different.

2.2.3 Subjective morality (MS) and Subjective norms (NS)

According to Hegel (2007) the morality is linked to social customs. Smith (2014) argued that subjective morality is a function the individual believes about circumstances of his possible acts and respective consequences. In the financial perspective, Buchanan (1985) has shown that subjective morality limited indebtedness. This author established that the individual creates restrictions because of his beliefs over the perception of the environment about consequences of improper use of his finances. This statement is also supported by MacKenzie, Lutz and Belch (1986) who concluded

that subjective morality is motivated by an awareness of social expectations. The individual tends to follow the norms, based on beliefs about what other people do or think the person should do.

2.3 Perceived control (CONPER) and the intention of indebtedness (INTEND)

From TBP (Ajzen, 1991), perceived control responds to the resources and opportunities to perform a specific behaviour. Perceived control reflects the individual's perception of its ability to perform the behaviour (Madden, Ellen & Ajzen, 1992). Tokunaga (1993) conducted a study that showed that credit card users who did not pay had higher perceived control. They saw money as a source of power and prestige, so it took less effort using the credit card. Also, they showed little risk aversion and expressed more considerable anxiety about the finances of those credit card users without payment problems. In this way, the author found positive relationships between the perceived control and the accumulation of credit card debt. The studies of Kidwell and Jewell (2008); Ouellette and Wood (1998) and Sutton (1994) showed that the observable variables such as (a) past behaviour, (b) sources of information and (c) self-control described the perceived control over the intention of credit card indebtedness. Consequently, it is assumed that:

H₃: The perceived control towards the indebtedness positively influences the intention of personal indebtedness not guaranteed with the credit card.

2.3.1 Past Behaviour (CPAS) and Perceived Control (CONPER)

Past behaviour can provide additional explanatory power to the intention prediction. Kidwell and Jewel (2008) indicated that people who have little or no experience in carrying out a particular behaviour might require more effort in processing information about the results or consequences of such action. In the field of credit card debt studies, previous research (Conner & Armitage, 1998; Sutton, 1994) concluded that past behaviour is the best predictor of future behaviour. On the other hand, Kim and Devaney (2001) found evidence that past payment habits were a significant predictive factor of the balance to be paid on the credit card. Therefore, it expected that past payment habits are related to the correct use of credit cards.

2.3.2 Sources of information (FI) and perceived control (CONPER)

Beatty and Smith (1987) have defined the search for explicit or implicit information, such as the degree of attention, perception and direct effort to obtain environmental data or information related to an action. Schmidt and Spreng (1996) claimed that the information collected through research is recorded in the consumer's memory and influences the subsequent purchase. On the other hand, the behaviour of seeking external information includes advice with friends, family members, experienced consumers, sellers and third parties.

In the field of credit cards, Elmerick, Montalto and Fox (2002) stressed that users of this payment method use information sources to obtain advice tend to have more confidence in their financial decisions. Moreover, the studies of Delamaire, Abdou and Pointon (2009) have shown that the information that the individual possesses before obtaining a credit allows him to make better decisions.

2.3.3 Self-control (AUTOC) and perceived control (CONPER)

Self-control has been addressed by various studies (Gal & Liu, 2011; Gale & Levine, 2014) as a personality trait associated with the ability to resist temptations and maintain self-discipline. This fact, of course, without breaking habits and falling into harmful behaviours. In the area of credit card indebtedness, Braun et al. (2016) stressed that users who maintain a higher level of self-control could handle their emotions correctly. So, they avoid the impulse in compulsive purchases that increase

their debt.

In light of the central theoretical and empirical relationships presented in this section, a model is proposed to explain the intention of unsecured personal indebtedness of cardholders in Ecuador. The studies undertaken suggested that indebtedness behaviour is the result of the interrelationship between (a) personal factors, (b) environmental factors and (c) how the individual responds to these factors. For this reason, the study of personal indebtedness becomes relevant in world literature by its social and economic effects

Additionally, to the hypotheses raised in the TBP (Ajzen, 1991), this study tries to confirm with empirical evidence the opinion of experts in the banking sector in Ecuador, who argued that the intention of indebtedness with credit cards in cardholders from the cities of Guayaquil and Quito is different, from this assertion that is assumed:

H4. The intention of personal indebtedness not guaranteed with a credit card in the credit cardholders of Guayaquil and Quito is different.

3. Methodology

The study was carried out on professionals from the cities with the highest representativeness of the population. A sample based on a population of 3,050,057 professionals with a registered academic degree was obtained (Ecuadorian Institute of Statistics and Censorships, 2018). On the other hand, the report published by the Superintendence of Banks and Insurance (2014) considered the professionals as one of the main interest groups for the reduction of personal debt. This report mentioned that 40% of professionals have at least one credit card. Therefore, the study population of this research consisted of 882,514 Ecuadorian professionals. To select the participants, it considered to professionals with a credit card who was living in the major cities of Ecuador. According to Carrillo (2017), 47% of the credit cardholders lived in Guayaquil and Quito, highlighting the importance of these cities for this research.

One of the contributions of this research was to study to profesionals, a different group of university students, as it was done in other studies (Bernthal et al., 2005; Hancock, Jorgensen & Swanson, 2013; Norvilitis, Szablicki & Wilson, 2013). For this survey, a sample of 450 professional credit cardholders was used, 225 lived in Guayaquil and 225 in Quito. Participants have expressed that they have at least one credit card. Also, they had a habit not paying the entire debt until the end of each period. In this way, the study focuses exclusively on cardholders who accumulate debt over time. The demographic characteristics of this sample have been evaluated based on: (a) city, (b) age, (c) civil status, (d) gender; (e) level of education; (f) how you live; (g) job type and (h) number of children.

The measurement of study variables was carried out using two validated questionnaires: Financial capability National Survey (2015) and Survey of Consumer Finance (2013) (Section E). The express approval of the authors of these instruments was asked. Data collection was held in universities and companies located in Guayaquil and Quito. A total of 450 questionnaires were collected (225 in Guayaquil and 225 in Quito). Only 421 were suitable for analysis, 211 in Guayaquil and 210 in Quito. The remaining 29 questionnaires were incomplete in more than 50% of the questions, so the researchers decided to eliminate them.

4. Results

To assess the behaviour of the data measured on a Likert scale, it used a frequency analysis. Respondents of the surveys were professionals men (44.20%) and women (55.80%) from Guayaquil and Quito. The descriptive results showed that 84.3% of respondents were between 25 and 44 years old, 44.18% were married, and 43.71% were single. Also, 49.60% had a university master's degree.

Among the results it emerged that 46.6% live with their partner and receive an average annual of incomes between \$15,000 and \$25,000; furthermore, the main source of incomes comes from job as

an employee and they have two children on average. The average of the answers obtained in the five elements of the variable INTEND was used to compare the intention of indebtedness with a credit card in Guayaquil and Quito. The results of the analysis of variance ANOVA corresponding to a factor are shown in the following table:

Table 1: ANOVA one factor

	Sum of squares	gl	Mean Square	F	Sig.
Inter-group	49.301	1	49.301	38.987	.000
Intra-group	529.849	419	1,265		
Total	579.150	420			

The results showed that there was a significant difference to variable INTEND between the cities of Guayaquil and Quito. This empirical evidence confirmed opinions of Ecuadorian banking experts who indicated that the behaviour of credit cardholders using this payment method in those cities were different. On the other hand, to evaluate the measurement model, a confirmatory factor analysis (CFA) was done. The discriminant validity was assessed using the criterion suggested by Fornell-Larker (1981) and the convergent validity by the analysis of the average variance extracted (AVE). Besides, the composite reliability and the Cronbach alpha coefficients were calculated to confirm the internal consistency of the scales. The evaluation of the model's variables is presented in the table below:

Table	2: Evalu	ation of	model's	variables
-------	----------	----------	---------	-----------

	Alpha of Cronbach	rho_A	Composite reliability	Average variance extracted (AVE)
ACT	0.8461	0.8976	0.8689	0.7043
AUTOC	0.8732	0.8808	0.9221	0.7978
CONPER	0.8729	0.9494	0.9041	0.5302
CONSUB	0.8143	0.8147	0.9150	0.8434
CONTC	0.8558	0.8562	0.9024	0.6981
CPAS	0.9371	0.9375	0.9503	0.7611
ESTV	0.9217	0.9222	0.9410	0.7615
FI	0.7396	0.7954	0.8449	0.6458
HPL	0.9113	1.0429	0.9423	0.8450
IFAF	0.9132	0.9146	0.9389	0.7935
INTEND	0.9042	0.9093	0.9292	0.7249
MS	0.9235	0.9243	0.9515	0.8674
NS	0.9421	0.9431	0.9497	0.6120
TR	0.8222	0.8237	0.8941	0.7380

Also, the factor loadings of the items were assessed. According to Dunn, Seaker y Waller (1994), factor loadings must be superior to 0.7. All factor loadings were above 0.70, except for four items (1 CONTC item, 2 IFAF items and 1 AUTOC item) which values were less 0.70 and therefore excluded for the final analysis. The alpha of Cronbach coefficient reported by all constructs is between 0.8143 and 0.9421, demonstrating high reliability (Hair & Anderson, 1999). Concerning composite reliability, all constructs were more significant than 0.7 (Fornell & Larcker, 1981), with a minimum of 0.8449 and a maximum of 0.9503. Besides, the values of the average variance extracted (AVE) were higher than 0.5, ensuring the convergent validity of the model. About the discriminant validity of constructs, none of the items had a value greater than the dimension that was evaluated (Barclay, Higgins and Thompson, 1995). Finally, the discretionary validity was measured by Heterotrait-Monotrait (HTMT)

correlations, verifying that all elements were less than 0.85 (Hair, Hult, Ringle and Sarstedt, 2016). The figure below specifies the results of the measurement model.



Figure 1. Validated measurement model

The above figure shows the alpha of Cronbach in the model's constructs, as well as the path coefficients in the internal structural model. For the assessment of the structural model, the collinearity of the variables was assessed using the variance inflation factor (VIF). According to Hair et al. (2012) if the value of the VIF is greater than five, there is evidence of collinearity between factors or variables. Then it can be considered to merge, create or delete a construct. In the following table, the VIF are presented among the factors of the model.

Table 3:	Variance	inflation	factor	(VIF)
----------	----------	-----------	--------	-------

	ACT	CONPER	INTEND	NS
АСТ			1.5287	
AUTOC		2.8180		
CONPER			3.1200	
CON SUB	2.1545		-	
CONTC	2.4647			
CPAS		2.8166		
ESTV				1.6974
FI		1.0072		
HPL	1.0102			
IFAF				3.0712
INTEND				
MS				2.5808
NS			3.7251	
TR	1.3924			

The results of the VIF analysis did not present problems of collinearity between the factors of the model. However, in the assessment of the collinearity of the items, it was demonstrated that the

Horizon Planning Horizon (HPL): hpl3 and hpl4 presented values of 5.6716 and 5.3387, respectively. These values were greater than the accepted critical value of five. According to the suggestions of Hair et al. (2014) in front of the evidence of collinearity problems, it can consider eliminating one of the variables to solve the problems. Given this situation, it decided to eliminate the element corresponding to Hpl4. This decision corrected the collinearity between the observable variables and the elements of the model. After the VIF analysis, the structural model was estimated using SmartPLS software, obtaining standardized regression coefficients with values between -1 and 1. The following figure shows the results of the structural model estimation after solving the collinearity problem.



Figura 2. Validated structural research model

The above figure shows the results of the validated structural model. It can see the correlation coefficients and the p-value. The significance of the relationsips between variables of the model was assessed through the p-value. With a level of significance of 0.05, the intention of indebtedness INTEND of the Ecuadorian professionals can be explained in a significant and positive way by the attitude ACT and subjective norms NS. At the same time, perceived control CONPER has a significant but negative relationship in the pattern.

Therefore, hypothesis H1 and H2 hypothesis were supported by the model, whereas, on the contrary, the hypothesis H3 was not supported. The results show that all relationships are meaningful, except for HPL with ACT and FI with CONPER that have a p-value> 0.05.

Similarly, the predictive quality of the proposed model was assessed using the coefficient of determination R2, which explains the capacity of variation of the dependent variable (Hair et al., 2014). The value of the coefficient of determination R2 of the intention of indebtedness INTEND is 0.7487; this result shows that 74.87% of the variance of the intention of indebtedness is explained by attitude, subjective norms and perceived control. Besides, the Stone Geisser Q2 indicators to all constructs were above zero. Then, according to Stone (1974) and Geisser (1974) the predictive relevance of the proposed model is accepted. For the model adjustment, the residual root mean quadratic index (MRSR) (Hu & Bentler, 1998) was used. The value as 0.0502, so, the model has an adequate adjustment.

	RMSE	MAE	Q ² _predict
АСТ	0.1796	0.1410	0.9703
CONPER	0.1783	0.1386	0.9706
INTEND	0.4705	0.3733	0.7240
NS	0.1850	0.1437	0.9688

Table 4: Predictive validity - Stone - Geisser Q2

5. Discussion

Based on the framework of the Theory of Planned Behaviour of Ajzen (1991), this study assessed the intention of indebtedness with credit cards in professional Ecuadorians. The proposed model showed an explanation capacity of 74.87% of the INTEND variance. The results showed that exist a significant positive relationship between ACT and INTEND. The most important predictor of ACT was CONTC. This result contributes to the studies of Glaser (1984); Kinsey and Mcalister (1981) who said that while more a topic is known, the user will have the capacity to take a more confident decision. Although previous studies, did not consider the CONTC in the measurement of the attitude towards indebtedness, this result confirmed that the individual's knowledge of this payment method is the most important predictor. This fact is consistent with the Theory of Knowledge proposed by Chisholm (1989).

However, this finding was opposite to the results reported in the financial field, where CONSUB was considered the main predictor of financial decisions (Ellen, 1994; Flynn & Goldsmith, 1999). Of course, this discovery is meaningful since previous studies did not consider the object knowledge (credit card), but only a subjective financial knowledge. Therefore, this research brings a new dimension to the measurement of ACT, which includes not only the financial knowledge of the individual but also the knowledge of the payment method. The NS showed a significant favourable influence on INTEND with the credit card. These findings confirm the previous studies conducted by Conner and Armitage (1998); Rimal and Real (2005) where ESTV stands out as the main predictor of moral and social norms NS.

Another contribution of this research is that in Latin American countries, the study of IFAF in NS has not been developed. Studies such as Hancock et al, (2013); Ismail, Amin, Shayeri and Hashim (2014) considered IFAF exclusively in eastern culture countries. Thus, this new dimension was included in the assessment of NS for western culture countries.

CONPER showed a significant negative relationship with INTEND. CPAS stands out as the leading predictor of CONPER. This finding confirmed studies such as Bamberg, Ajzen and Schmidt (2003); Conner and Armitage (1998); Kidwell and Jewell (2008); Ouellette and Wood (1998) and Sutton (1994) which argued that past habits and behaviours conditioned present and future individual's decision-making. Similarly, Kim and Devaney (2001) indicated that past payment habits were a significant predictive factor for outstanding credit card balances.

On the other hand, the results of the study show a lower value in the relationship between AUTOC and CONPER. AUTOC is a personality trait associated with the ability to resist temptation and maintain self-discipline without breaking habits and falling into harmful behaviours (Gal & Liu, 2011; Gale & Levine, 2014). In the credit card debt area, AUTOC is a predictive factor that contributes approximately half of what the CPAS does in the validated model.

Another contribution of this study is the empirical evidence confirming opinions stated by experts in Ecuador's banking sector. They indicated the existence of different behaviour in the intention of indebtedness with credit card between the professionals of Guayaquil (coast) and Quito (mountains). The ANOVA analysis corroborated the INTEND average between these two cities was not equal, extending the discussion for future research that explain the reasons for this difference.

6. Conclusions and Implications

The results of the study have implications for the academic and professional sector. First, for academics, the results of this research show that the model of the Theory of Planned Behaviour (Ajzen, 1971) is a good predictor for the intention of indebtedness with a credit card in professionals. Second, this study provides new individual and contextual factors that demonstrate the particular importance of CONTC, ESTV and CPAS in the prediction of INTEND. Also, these results bring new elements that can be included in the content of financial education provided by colleges and universities.

This research shows essential implications for financial, banking and public policy professionals. This study highlights the personal motivations that Ecuadorian professionals have in their intention of indebtedness. From this fact, authorities can develop strategies that allow the reduction of the risk of personal bankruptcy knowing the main predictors of INTEND.

This research has several limitations. First, the study was cross-sectional research because the information was collected at a single time. This does not allow to know the influence of attitudes, subjective norms and control perceived in the intention of indebtedness with a credit card at times of higher consumption such as Christmas. Second, not having full access to the professionals with a credit card, a non-probabilistic sample was used for convenience, which causes a limitation derived from selection bias.

Third, there is no secondary information to compare the results of this study with other emerging economies. It recommends realizing this study longitudinally, using other populations broader and more diversified. Therefore, a better sampling framework could be obtained that considers the impact of social variables such as gender and age on the relationships between variables of this study additionally.

References

- Aarts, H., & Dijksterhuis, A. (2000). Habits as knowledge structures: Automaticity in goaldirected behavior. Journal of Personality and Social Psychology, 78(1), 53-63. http://dx.doi.org/10.1037/0022-3514.78.1.53
- Adcock, W. O., Hirschman, E. C., & Goldstucker, J. L. (1977). Bank Credit Card Users: An Updated Profile. Advances in Consumer Research, 4(1), 236-241.
- Aizenman, J. (1990). External debt, planning horizon, and distorted credit markets. Journal of International Money and Finance, 9(2), 138–158.
- Ajzen, I., & Fishbein, M. (1970). The prediction of behavior from attitudinal and normative variables. Journal of experimental social Psychology, 6(4), 466–487. https://doi.org/10.1016/0022-1031(70)90057-0
- Bamberg, S., Ajzen, I., & Schmidt, P. (2003). Choice of Travel Mode in the Theory of Planned Behavior: The Roles of Past Behavior, Habit, and Reasoned Action. Basic and Applied Social Psychology, 25(3), 175-187. https://doi.org/10.1207/S15324834BASP2503_01
- Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration. Technology studies, 2(2), 285-309.
- Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the Process of Cross-Cultural Adaptation of Self-Report Measures: Spine, 25(24), 3186-3191. https://doi.org/10.1097/00007632-200012150-00014
- Bernthal, M. J., Crockett, D., & Rose, R. L. (2005). Credit Cards as Lifestyle Facilitators. Journal of Consumer Research, 32(1), 130-145. https://doi.org/10.1086/429605
- Brown, S., Garino, G., & Taylor, K. (2013). Household debt and attitudes toward risk. Review of Income and Wealth, 59(2), 283-304.
- Brucks, M. (1985). The effects of product class knowledge on information search behavior. Journal of consumer research, 1–16.
- Buchanan, J. M. (1985). The moral dimension of debt financing. Economic inquiry, 23(1), 1–6. https://doi.org/10.1111/j.1465-7295.1985.tb01748.x
- Chisholm, R. M. (1989). Theory of knowledge (3. ed., [1. Dr.]). Englewood Cliffs, NJ: Prentice-Hall International.
- Clyde, I. (2008). The impact of credit card advertising on consumer decision-making and behaviour. Consumer Affairs Victoria, 45.

- Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for further research. Journal of applied social psychology, 28(15), 1429–1464. https://doi.org/10.1111/j.1559-1816.1998.tb01685.x
- Crook, J. (2001). The demand for household debt in the USA: evidence from the 1995 Survey of Consumer Finance. Applied Financial Economics, 11(1), 83-91. https://doi.org/10.1080/09603100150210291
- Danes, S. M., & Hira, T. K. (1980). Knowledge, beliefs, and practices in the use of credit cards. Home Economics Research Journal, 18(3), 223–235. https://doi.org/10.1177/1077727X9001800304
- Deem, R. (1998). «New managerialism» and higher education: The management of performances and cultures in universities in the United Kingdom. International Studies in Sociology of Education, 8(1), 47-70. https://doi.org/10.1080/0962021980020014
- Delamaire, L., Abdou, H., & Pointon, J. (2009). Credit card fraud and detection techniques: a review. Banks and Bank Systems, 4(2), 13.
- Duca, J. V., & Rosenthal, S. S. (1993). Borrowing constraints, household debt, and racial discrimination in loan markets. Journal of Financial Intermediation, 3, 77-103.
- Dunn, S. C., Seaker, R. F., & Waller, M. A. (1994). Latent Variables in Business Logistics Research: Scale Development and Validation. Journal of Business Logistics, 15(2), 29.
- Durkin, T. A., Elliehausen, G., & Zywicki, T. J. (2014). An Assessment of Behavioral Law and Economics Contentions and What We Know Empirically About Credit Card Use by Consumers. Supreme Court Economic Review, 22(1), 1–54. https://doi.org/10.1086/682014
- Ellen, P. S. (1994). Do We Know What We Need to Know? Objective and Subjective Knowledge Effects on Pro-Ecological Behaviors, Journal of Business Research, 30(1), 43-52. https://doi.org/10.1016/0148-2963(94)90067-1
- Elmerick, S. A., Montalto, C. P., & Fox, J. J. (2002). Use of financial planners by U.S. households. Financial Services Review, 11(3), 217-231.
- Fazio, R. H. (1990). Multiple Processes by which Attitudes Guide Behavior: The Mode Model as an Integrative Framework. En M. P. Zanna (Ed.), Advances in Experimental Social Psychology (Vol. 23, pp. 75-109). https://doi.org/10.1016/S0065-2601(08)60318-4
- Feinberg, R. A. (1986). Credit Cards as Spending Facilitating Stimuli: A Conditioning Interpretation. Journal of Consumer Research, 13(3), 348-356. https://doi.org/10.1086/209074
- Finke, M. S., & Huston, S. J. (2003). The brighter side of financial risk: Financial risk tolerance and wealth. Journal of Family and Economic Issues, 24(3), 233–256.
- Fishbein, M., & Ajzen, I. (1974). Attitudes towards objects as predictors of single and multiple behavioral criteria. Psychological review, 81(1), 59. http://dx.doi.org/10.1037/h0035872
- Flynn, L. R., & Goldsmith, R. E. (1999). A Short, Reliable Measure of Subjective Knowledge. Journal of Business Research, 46(1), 57-66. https://doi.org/10.1016/S0148-2963(98)00057-5
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of Marketing Research, 18(1), 39-50. https://doi.org/10.1177/002224378101800104
- Frączek, B., & Klimontowicz, M. (2015). Financial literacy and its influence on young customers' decision factors. Journal of Innovation Management, 1(3), 62-84. https://doi.org/10.24840/2183-0606_003.001_0007
- Gal, D., & Liu, W. (2011). Grapes of Wrath: The Angry Effects of Self-Control. Journal of Consumer Research, 38(3), 445-458. https://doi.org/10.1086/659377
- Gale, W., & Levine, R. (2014). Financial literacy: what works? How could it be more effective? Financial Security Project. http://dx.doi.org/10.2139/ssrn.2316933
- Geisser, S. (1974). A predictive approach to the random effect model. Biometrika, 61(1), 101-107. https://doi.org/10.1093/biomet/61.1.101
- Godin, G., Valois, P., & Lepage, L. (1993). The pattern of influence of perceived behavioral control upon exercising behavior: An application of Ajzen's theory of planned behavior. Journal of behavioral medicine, 16(1), 81–102. https://doi.org/10.1007/BF00844756
- Godwin, D. D. (1998). Household debt quintiles: Explaining changes 1983–1989. Journal of Consumer Affairs, 32(2), 369–393.
- Hair, J., & Anderson, R. (1999). Análisis Multivariante (5ta.). Madrid: Pearson Educación.
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). SAGE Publications.
- Hancock, A. M., Jorgensen, B. L., & Swanson, M. S. (2013). College Students and Credit Card Use: The Role of Parents, Work Experience, Financial Knowledge, and Credit Card Attitudes. Journal of Family and Economic Issues, 34(4), 369-381. https://doi.org/10.1007/s10834-012-9338-8

- Hayhoe, C. R., Leach, L., & Turner, P. R. (1999). Discriminating the number of credit cards held by college students using credit and money attitudes. Journal of Economic Psychology, 20(6), 643-656. https://doi.org/10.1016/S0167-4870(99)00028-8
- Hegel, G. W. F. (2007). Georg Wilhelm Friedrich Hegel: Lectures on the Philosophy of Spirit 1827-8. Oxford University Press.
- Hira, T. K., & Mugenda, O. M. (1999). The Relationships between Self-Worth and Financial Beliefs, Behavior, and Satisfaction. Journal of Family and Consumer Sciences, 91(4), 76-82.
- Hirschman, E. C. (1979). Differences in Consumer Purchase Behavior by Credit Card Payment System. Journal of Consumer Research, 6(1), 58-66. https://doi.org/10.1086/208748
- Hu, L., & Bentler, P. M. (1998). Fit Indices in Covariance Structure Modeling: Sensitivity to Underparameterized Model Misspecification. Psychological Methods, 3(4), 424-453. http://dx.doi.org/10.1037/1082-989X.3.4.424
- Ismail, S., Amin, H., Shayeri, S. F., & Hashim, N. (2014). Determinants of Attitude towards Credit Card Usage. UKM Journal of Management, 41, 145–154.
- Ismail, S., Othman, R., Kamalrulzaman, S. N. H., Jahya, A., Idris, N. H., Zaitun, S., & Izren, F. (2012). Determinants of Personal Loans Borrowing: An Empirical Study. Symposium on Business, Engineering and Industrial Applications.
- Katz, J. (1997). The Joy of Consumption [Federal Reserve Bank of Boston]. Recuperado 28 de diciembre de 2016, de Federal Reserve Bank of Boston website: https://www.bostonfed.org/publications/regionalreview/1997/winter/the-joy-of-consumption.aspx
- Khare, A. (2013). Credit Card Use and Compulsive Buying Behavior. Journal of Global Marketing, 26(1), 28-40. https://doi.org/10.1080/08911762.2013.779406
- Kidwell, B., & Jewell, R. D. (2008). The influence of past behavior on behavioral intent: An information-processing explanation. Psychology and Marketing, 25(12), 1151-1166. https://doi.org/10.1002/mar.20258
- Kinsey, J. (1981). Determinants of Credit Card Accounts: An Application of Tobit Analysis. Journal of Consumer Research, 8(2), 172-182. https://doi.org/10.1086/208853
- Kinsey, J., & Mcalister, R. (1981). Consumer Knowledge of the Costs of Open-end Credit. Journal of Consumer Affairs, 15(2), 249-270. https://doi.org/10.1111/j.1745-6606.1981.tb00712.x
- Lee, J., & Kwon, K.-N. (2002). Consumers' Use of Credit Cards: Store Credit Card Usage as an Alternative Payment and Financing Medium. Journal of Consumer Affairs, 36(2), 239-262. https://doi.org/10.1111/j.1745-6606.2002.tb00432.x
- Littwin, A. K. (2007). Beyond Usury: A study of credit card use and preference among low-income consumers. Harvard Law School Faculty Scholarship Series, (8).
- Livshits, I. (2015). Recent developments in consumer credit and default literature. Journal of Economic Surveys, 29(4), 594-613. https://doi.org/10.1111/joes.12119
- Long, N. V., & Siebert, H. (1988). Optimal foreign borrowing: Sensitivity analysis with respect to the planning horizon. Recuperado de Diskussionsbeitr‰ ge: Serie II, Sonderforschungsbereich 178" Internationalisierung der Wirtschaft", Universit‰ t Konstanz website: https://www.econstor.eu/handle/10419/101505
- MacKenzie, S. B., Lutz, R. J., & Belch, G. E. (1986). The Role of Attitude toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations. Journal of Marketing Research, 23(2), 130. https://doi.org/10.2307/3151660
- Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A Comparison of the Theory of Planned Behavior and the Theory of Reasoned Action. Personality and Social Psychology Bulletin, 18(1), 3-9. https://doi.org/10.1177/0146167292181001
- Mansfield, P. M., Pinto, M. B., & Parente, D. H. (2003). Self-Control and credit card use among student. Psychological Reports, 92(1067-1078). https://doi.org/10.2466/pr0.2003.92.3c.1067
- Mansilla, L., Denegri, M., & Álvarez, B. (2016). Relationship between attitudes toward indebtedness and consumer locus of control in university students. Suma Psicológica, 23(1), 1–9. http://dx.doi.org/10.1016/j.sumpsi.2015.11.002
- McGrath, P. (2016). The Use of Credit Cards in Response to the Crisis of Serious Illness. Illness, Crisis & Loss, 24(1), 46-56. https://doi.org/10.1177/1054137315587633
- Norvilitis, J. M., Szablicki, P. B., & Wilson, S. D. (2013). Factors Influencing Levels of Credit-Card Debt in College Students. Journal of Applied Social Psychology, 33(5), 935–947. https://doi.org/10.1111/j.1559-1816.2003.tb01932.x
- Ouellette, J., & Wood, W. (1998). Habit and Intention in Everyday Life: The Multiple Processes by Which Past Behavior Predicts Future Behavior. Psychological Bulletin, 124(1), 54-74. http://dx.doi.org/10.1037/0033-2909.124.1.54

Parker, D., Manstead, A. S., & Stradling, S. G. (1995). Extending the theory of planned behaviour: The role of personal norm. British Journal of Social Psychology, 34(2), 127–138. https://doi.org/10.1111/j.2044-8309.1995.tb01053.x

Pinto, M. B., Mansfield, P. M., & Parente, D. H. (2004). Relationship of credit attitude and debt to self-esteem and locus of control in college-age consumers. Psychological Reports, 94(3 suppl), 1405–1418. https://doi.org/10.2466/pro.94.3c.1405-1418

Plummer, J. T. (1971). Life Style Patterns and Commercial Bank Credit Card Usage. Journal of Marketing, 35(2), 35-41. https://doi.org/10.1177/002224297103500207

- Rimal, R. N., & Real, K. (2005). How Behaviors are Influenced by Perceived Norms: A Test of the Theory of Normative Social Behavior. Communication Research, 32(3), 389-414. https://doi.org/10.1177/0093650205275385
- Robb, C. A. (2011). Financial Knowledge and Credit Card Behavior of College Students. Journal of Family and Economic Issues, 32(4), 690-698. https://doi.org/10.1007/s10834-011-9259-y
- Robb, C. A., & Woodyard, A. (2011). Financial knowledge and best practice behavior. Journal of Financial Counseling and Planning, 22(1). Recuperado de http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2061308
- Rosel, J., & Elosegui, E. (1991). Un modelo de ecuaciones estructurales para diseño de panel. Psicothema, 3(2), 433-442.
- Rubenstein, C. (1981). Money and Self-Esteem, Relationships, Secrecy, and Satisfaction. Psychology Today, 15(5), 29-44.
- Smith, H. M. (2014). The Subjective Moral Duty to Inform Oneself before Acting. Ethics, 125(1), 11-38. https://doi.org/10.1086/677024
- Stone, M. (1974). Cross-Validatory Choice and Assessment of Statistical Predictions. Journal of the Royal Statistical Society: Series B (Methodological), 36(2), 111-133. https://doi.org/10.111/j.2517-6161.1974.tb00994.x
- Superintendencia de Bancos y Seguros. (2014). Informe anual de coyuntura financiera del sector bancario en el Ecuador.
- Sutton, S. (1994). The past predicts the future: Interpreting behavior relationships in social psychological models of health behavior. Social psychology and health: European perspectives, 71-88.
- Tang, N., & Baker, A. (2016). Self-esteem, financial knowledge and financial behavior. Journal of Economic Psychology, 54, 164-176. https://doi.org/10.1016/j.joep.2016.04.005
- Tokunaga, H. (1993). The use and abuse of consumer credit: Application of psychological theory and research. Journal of Economic Psychology, 14(2), 285-316. https://doi.org/10.1016/0167-4870(93)90004-5
- Wang, L., Malhotra, N. K., & Lu, W. (2014). Determinants of credit card debt: Differentiating between revolving credit debt and petty installment loan in China: Determinants of credit card debt. Journal of Consumer Behaviour, n/a-n/a. https://doi.org/10.1002/cb.1474
- Wasberg, C. A., Hira, T. K., & Fanslow, A. M. (1992). Credit card usage and consumer debt burden of households. Journal of Consumer Studies & Home Economics, 16(1), 19-32. https://doi.org/10.1111/j.1470-6431.1992.tb00496.x
- Woodyard, A., & Robb, C. (2012). Financial Knowledge and the Gender Gap. Journal of Financial Therapy, 3(1). https://doi.org/10.4148/jft.v3i1.1453

63