



Revista de Administração da Universidade Federal de Santa Maria

ISSN: 1983-4659

rea@smail.ufsm.br

Universidade Federal de Santa Maria
Brasil

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Revista de Administração da Universidade Federal de Santa Maria, vol. 12, no. 1, 2019, January-March, pp. 142-158
Universidade Federal de Santa Maria
Brasil

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STYLE CONSUMPTION AND PROPENSITY TO INDEBTEDNESS: EVIDENCE ON THE PEACE BORDER

Submission: 21/04/2015

Accept: 30/06/2017

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ABSTRACT

This research has investigated behavioral factors and demographic variables in the propensity for debt in Santana do Livramento, Brazil and Rivera, Uruguay. The data was collected through a structured questionnaire with quantitative scales for the debt, materialism, perception and risk behavior and other profile issues. In relation to the debt, the central theme of the research, it is perceived that the respondents have submitted a more conservative behavior as it pertains to propensity to incur debts, presenting a high risk perception and a more conservative behavior risk. In relation to materialism, the respondents demonstrated a tendency to purchase goods to satisfy their wishes. This result can be associated with the profile of the Peace Border that occurs due to the diversity of imported products aligned to shopping tourism incentive. We also emphasize that aspects that can influence individuals in the propensity for debt are the 'perception of risk' and the demographic variable 'age'.

Keywords: Personal Finances, Propensity to Indebtedness, Behavioral Factors, Demographic Variables.

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1 INTRODUCTION

The contemporaneity has made the offer market diversify, allowing the customer to choose the product that best suits their needs and desires. The decision to acquire a certain product is influenced by personal experiences by every individual (KOTLER, 2008), as well as the factors that shape the client's perception, the characteristics of the stimulus and knowledge (SHETH; MITTAL; NEWMAN, 2001).

Thus, buying habits are changing over the years, characterizing a new way of life, which is called by Slomp (2008) as the consumer society. This new behavior can be attributed to the increase in credit and the search for satisfaction of personal needs and desires, which are often satiated by the acquisition of products.

However, it should be emphasized that the transformations that take place in the consumer environment can have consequences for individuals and for the economy. An example of this is non-payment and consumer indebtedness. In Brazil, some research is being carried out aiming at mapping the profile of indebtedness and guiding individuals, government, companies, among others, from information on debts. The Consumer Indebtedness and Non-payment Survey (PEIC) is an example. Elaborated since January 2010 by the National Confederation of Commerce (CNC), PEIC indicates monthly information on the use of credit and indebtedness in the country.

The PEIC results of March 2016 indicated that the percentage of families with debt reached 84.4% of the individuals interviewed. Of these, 27% are overdue accounts and 10.3% have assumed they are unable to pay off debts. The credit card was pointed out by 69.4% of the indebted families as one of the main types of debt, followed by the financing of house and car, both with the same percentage (10.1%).

With the increase in the purchasing power of citizens and the great development of the existing offerings in the market, consumers' buying habits have become a current research topic in the academic environment, in the field of economic psychology and behavioral finance (MACEDO JR; KOLINSKY; MORAES, 2011). In this sense, the present research sought to analyze the habits of consumption and propensity for indebtedness in Santana do Livramento/Brazil and Rivera/Uruguay, these two cities being known as the Peace Border, due to the existing cultural integration. It should be empathizing that, since these are two distinct countries, the analysis of consumption and propensity to debt is a relevant topic, of interest to individuals, companies and governments.

As an example of this importance, McCarty (2007) conducted a study in three countries in Europe and the United States to try to understand the behavior and attitudes of consumers. This study analyzed the consumer style, that is, the variables that are related to the people within their consumption activities and had as a result that depending on each country there are rather differences in style of consumption.

To achieve the proposed objectives, this research is structured, in addition to this introduction, in four sections. In the second section, the relevant bibliographic review is presented and responsible for the support to the analysis of the research and, in the following section, the methodology of the research. In the fourth section, the results are analyzed and discussed and, finally, the final considerations are presented.

2 THEORETICAL BASIS

Despite being considered a recent event in the reality of society, the significant increase in the number of indebted individuals has resulted in a greater interest of the academy in stud-

ying it. “[...] Debts are part of a general economic context and depend on various international, national, regional and even family actions” (TOLOTTI, 2014). Corroborating in this sense, Vieira et al. (2014) affirmed that the issue of indebtedness and the propensity for indebtedness has represented the focus of many researches and that are often related to several factors, for example, socioeconomic, demographic and psychological factors.

According to Silva (2014), people who do not carry out financial planning can become indebted. It should be noted that debt causes problems in other spheres, such as health and psychological, and may even affect the social and professional relationships of the indebted individual. On the other hand, Barros (2009) emphasizes that there is no principle that determines the adequate degree of indebtedness of a person or organization. However, the author believes that it is a prudent attitude to maintain a proportionality between equity and third-party capital.

In this scenario, there is an increase in credit levels that facilitate consumption and encourage individuals to seek material goods in order to satisfy their desires and needs. At times, this consumption is not planned and may result in a situation of over-indebtedness that Zerrenner (2007) classified in two types: active and passive. In the first, the individual actively contributes to the situation of impossibility of payment, while the second is the result of circumstances not controllable by the same, such as a situation of unemployment, for example. Thus, it is important to evaluate the factors that can influence individuals in the buying process and the possible propensity to debt.

Vitt (2004) points out that consumer financial decisions involve a range of psychological, physical, and social values, often rooted in feelings and emotions. To assess these issues, some behavioral factors have been considered by research, such as materialism and risk, which will be addressed in the subsection below.

2.1 Materialism and Risk

Materialism was diffused from two concepts and two scales formulated by Belk (1984, 1985) and by Richins and Dawson (1992). Belk (1984) characterized materialism as the importance given by the consumer to their possessions and that they occupy the place of centrality in the lives of consumers and may even lead to satisfaction or dissatisfaction. The scale proposed by the author highlights the measurement of materialism through three theoretical dimensions: (I) possessiveness; (II) non-generosity; and (III) envy. Subsequently, in a new study, Belk (1985) added the dimension (IV) preservation.

On the other hand, Richins and Dawson (1992) conceptualized materialism as the importance that the consumers attribute to their possessions, but the latter with the purpose of life or still in the intention to reach some previously desired state. Materialism, according to the authors, is assimilated as a cultural value. The measurement scale of materialism proposed and defended by Richins and Dawson (1992) comprises three dimensions: (I) centrality; (II) happiness; and (III) success.

Ponchio, Aranha and Todd (2007) pointed out that materialistic consumers are those who make a comparison with the goods that others possess and seek the acquisition of these or new goods with superior characteristics. It is emphasized that these goods will provide individual success and happiness, because goods play a central role in the lives of materialistic consumers. The authors tested some relationships and came to confirmation, for example, that the ‘age’ demographic variable can significantly influence the level of materialism, noting that young adults are more materialistic than older adults.

In general, materialism can be explained as an importance that the consumer considers to his material goods, that is, to the extent that the consumer makes new purchases, the material goods will assume an essential role in his life, and they will be sources of satisfaction or of dissatisfaction. Goods can be used by individuals as a means of exposing their individual values to other individuals, since materialism, in this case, is tied to possession and acquisition of material goods. However, it is emphasized that high levels of materialism can result in negative consequences such as indebtedness.

Another factor evidenced in the literature that addresses aspects of propensity for indebtedness is risk. Paulino (2009) pointed out that risk is the probability of danger in an uncertain but predictable way, where the man and/or the environment is exposed on various threat situations. The aforementioned author also shows that the human being is immersed in various risks based on moral and social values, which originate from his own experiences and from reasons, which distinguish them from each other.

Regarding the studies that address the risk, some individual factors of the respondents cannot be ignored in the search for answers to the study: age, gender, educational level, income, religious orientation, political preferences, culture, risky attitude, experiences social beliefs, anxiety, self-efficacy, locus of control, environmental beliefs and personality factors (CHAUVIN; HERMAND; MULLET, 2007).

There are a number of reasons for individuals to engage in risky behavior until it becomes vicious, i.e. the risk covered by the individual would generate actions that would promote a certain relief from the symptoms that are undesirable to them, but would result in negative aspects, the individual sought again the risk in order to relieve himself. It can be said that there are several factors that trigger risk behavior in the individual, so that each one will react differently from the other. These factors cannot be considered as a focus to be studied through the individual, but rather be studied from the context in which the latter is inserted (PAULINO, 2009). In the following section the methodology adopted in the present research is presented.

3 METHODS

The research has a descriptive character, with a quantitative approach. Descriptive research was used to analyze and describe the specific characteristics of the sample and the problem of propensity to debt (COLLIS; HUSSEY, 2005). A survey was conducted using a structured questionnaire to collect specific information from respondents (MALHOTRA, 2011) from Santana do Livramento/Brazil and Rivera/Uruguay.

The data collection technique used was the questionnaire, structured in 5 sections. In the first section we sought to know the use of credit and debt aspects of the individuals through 5 questions, checking the behavior against the credit card and the profile of the expenses in order to identify if the respondents are paying their bills on time or not. These questions were elaborated according to the study of Disney and Gathergood (2011). The second and third blocks dealt with issues related to propensity to debt and behavioral factors. To analyze the propensity for indebtedness, the scale composed of 9 questions proposed by Moura (2005) was adopted; and in relation to materialism the scale composed of 9 questions that cover three dimensions (centrality, happiness and success), also proposed by Moura (2005).

In the fourth block, we opted to analyze the risk in two dimensions: risk perception and risk behavior. For this analysis was adopted the scale formulated by Weber et al. (2002), which was adapted and validated in Brazil by Paulino (2009). In this way, only a part of the scale was

used, that is, that corresponded to the financial risk, composed of 10 questions (5 questions for the perception dimension and 5 for the dimension risk behavior). Finally, in the last block of the questionnaire, the profile of respondents was sought through demographic and cultural variables, such as age, gender, marital status, number of dependents, educational level, ancestry, occupation, income monthly and family.

Regarding population and sample, the individuals residing in Santana do Livramento/ Brazil and Rivera/Uruguay were considered. The city of Santana do Livramento, according to data from the IBGE (2014), has an estimated population of 83.324 inhabitants, has an area of 6.950 km² and an economy based mainly on agriculture. The city of Rivera, according to the 2011 Census of the Governmental Government of Rivera, has an estimated population of 103.493 inhabitants, covers an area of 9.370 km² and is in the northwest of the Eastern Republic of Uruguay (MOREIRA, 2012).

According to Sánchez (2002), the characteristics present in the Peace Border are singular, which promote a new conception of integration, union and bonding of the cities. He also points out that:

Rivera and Livramento are sisters and united by an imaginary line, they demonstrate to the world that peace is possible, so they are known as the *Peace Border* or *The Most Sisters of all the borders of the world*. The political limit is an imaginary boundary, and instead of dividing the cities, unites them, united by an imaginary line (SÁNCHEZ, 2002, 149).

Considering the cultural integration presented by cities and the importance of analyzing consumer behavior and propensity for indebtedness, the present research opted for the sampling process. The structured questionnaire was applied to a sample for convenience, distributed in the districts of Santana do Livramento/Brasil and Rivera/Uruguay, and for the residents of the latter the questionnaire was translated into Spanish. The period of application of the questionnaire in both cities was from October to December 2014, totaling 208 questionnaires answered and valid.

Regarding the techniques of data analysis, we chose descriptive statistics and multivariate analysis techniques, for which SPSS Statistics 20.0® software was used. Table 1 summarizes the research phases and data analysis techniques used.

Table 1 – Research phase, technique and analysis objective

Phase	Technique	Objective
1	Descriptive statistics	*Describe the profile of the individuals and the profile of the debt;
2	Cronbach's alpha	*Reliability of Indebtedness, Risk and Materialism scales;
3	Mean of the Variables	*Factor Formation;
4	Non-Parametric Tests and Exploratory Data Analysis	*Median Difference; *Mann Whitney Test and Kruskal Wallis Test; *OLAP Cubes (On-line Analytic Processing);
5	Multiple Linear Regression	* Relationship between propensity to indebtedness and behavioral factors and demographic variables.

Source: Elaborated by the authors.

Based on Table 1, it is observed that for the reliability of the scales Cronbach's alpha was adopted, which should have a value higher than 0.7 (BISQUERRA; SARRIERA; MARTINEZ, 2004; HAIR et al., 2005). In the sequence, the factors were formed from the means of the answers for each question of the scale. Afterwards, non-parametric hypothesis tests were applied to assess the influence of the profile variables in order to verify if there was a median difference in the groups. In a multidimensional comparison of the indebtedness factor, the OLAP Cubes tool was

applied in order to compare Brazilians and Uruguayans in terms of expenditures, gender and level of indebtedness. According to Turban et al. (2009), the OLAP Cubes provide decision support information by combining data with measures of interest to the analyst.

Also, a multiple linear regression analysis was carried out using the Ordinary Least Squares (OLS) method, seeking to verify which behavioral factors may influence the propensity to indebtedness (dependent variable). Profile variables were considered as independent variables, such as age, income, gender and educational level. Some of these variables were considered binary and therefore followed the following criterion: dummy gender (0 male, 1 female) and dummy educational level (0 has no university education, 1 has university education). The choice of independent variables is justified by theoretical questions, since studies have demonstrated the influence of these variables on the indebtedness (VIEIRA; FLORES; CAMPARA, 2014; VIEIRA; KUNKEL; PARABONI, 2015). Thus, to verify if the dependent variable (propensity to indebtedness) is related to the independent variables, we used Equation 1.

$$Y_i = \alpha_0 + \beta_1 \text{Materialism}_i + \beta_2 \text{Risk}_i + \beta_3 \text{Age}_i + \beta_4 \text{Income}_i + \beta_5 \text{Gender}_i + \beta_6 \text{Educational}_i + \beta_7 \text{MaritalStatus}_i + \beta_8 \text{CreditCard}_i + \varepsilon_i \quad [1]$$

After multiple linear regression analysis, the value of the multiple determination coefficient (R^2) was found, which is between the limit of $0 < R^2 < 1$ (HAIR et al., 2005). The Kolmogorov-Smirnov (KS), Durbin Watson (DW), Variance Inflation Factor (VIF) and Pesaran-Pesarán tests were used to verify the normality, autocorrelation, multicollinearity and homoscedasticity assumptions of the model equation. In the following section the results and discussions are presented.

4 RESULTS AND DISCUSSION

Regarding the sociodemographic profile, the mean age of the respondents was 32 years old, the majority of which belonged to the female gender (62%), 52% are single, which, in the majority (56.8%), do not have any dependents (they do not have children, husbands/ wives or other individuals that are subject to the income of this individual).

Afterwards, the level of schooling was evaluated, which may be related to the individual's financial education. Most of the respondents have completed secondary education (47.5%), followed by those with higher education (25.8%) and elementary education (16.7%). These results demonstrate an intermediate educational level, since the applied questionnaire allowed the respondents to register up to the postgraduate level (specialization, masters, doctorate, postdoctoral).

Regarding ancestry, most of the respondents declared themselves to be Brazilian (70.5%), followed by those who declared themselves Uruguayan (24.6%). Mention is also made of respondents who declared themselves Italians (4.3%), Portuguese (3.9%), Germans and Spanish (both 1.9%), and American, Croatian, Indigenous, Bugres and Paraguayans (together account for 2% of the total number of respondents).

Regarding the occupation, 38.6% of the respondents are salaried employees. However, a considerable number of individuals who did not engage in any kind of paid activity (22.2%) were identified. There are also self-employed workers (12.1%), civil servants (8.2%), those who carry out other occupations (8.2%), professionals and retirees (both 4.3%) and the farmers (1%).

Considering the average monthly income range, it was noticed that the largest number of respondents (41.8%) earn up to 1 minimum wage per month. Those who earn between 1 and 2 monthly minimum salaries correspond to 30.2% of the respondents; between 2 and 3 minimum wages, 16.5%; between 3 and 5 minimum wages, 7.1%; between 5 and 10 minimum wages, 3.8%. Likewise, the average monthly family income range is also at lower levels (25.8% of respondents

with income between 1 and 2 minimum wages). Those with average monthly family income between 2 and 3 minimum wages and between 3 and 5 are both 22.7%; up to 1 minimum wage, 12.9%; between 5 and 10 minimum wages, 11.9%; above 10 minimum wages, 3.9%. With these results, we can see the presence of a lower level of income, both self and family, which can cause budget constraints and modify the purchasing process of individuals.

After the knowledge of the sociodemographic profile of the respondents, we analyzed the use of credit and the debt aspect, with 5 questions related to the use of credit card and expenses proposed by Disney and Gathergood (2011). Table 2 shows the profile of income and expenses of the respondents.

Table 2 – Characterization of the expenses

Variable	Alternatives	Frequency	%
Do you use a credit card? How many?	No	81	39.7
	Yes	123	60.3
	1 credit card	61	52.6
	2 credit cards	35	30.2
	3 credit cards	11	9.5
	4 credit cards	02	1.7
	5 credit cards	02	1.7
	Up of 5 credit cards	05	4.3
Credit Dependency	All the time	11	5.6
	Sometimes	58	29.3
	Rarely	53	26.8
	Never	76	38.4
Expenses	I spend more than I earn	32	16.2
	I spend equal than I earn	68	34.3
	I spend less than I earn	98	49.5

Source: Elaborated by the authors.

Regarding the use of credit cards, most of the respondents use it (60.3%), the use of which varies from one (52.6%) to two (30.2%) credit cards. There are also respondents who use more than five credit cards (4.3%), although they constitute a small part of the respondents. This aspect becomes important on the assumption that credit cards can influence consumers' lifestyles and their purchases, and that many credit cards may lead to an increase in household debts due to the established commitment (DYNAN; KOHN, 2007; KUNKEL et al., 2013).

On credit dependency, that is, how often respondents depend on the use of credit, such as overdraft, to pay for their daily living expenses. It was observed that the respondents have a conservative behavior, since they never indicated that they depended on credit to pay their expenses (38.4%). However, there are those that rely on credit to pay off their debts, some of which depend all the time (5.6%); others sometimes (29.3%); and some rarely (26.8%).

Finding the questions about credit, the respondents' expenses were evaluated. Again, conservative behavior was observed, since 49.5% of the respondents said they were spending less than they earn. This type of behavior signals the fact that individuals are controlling their spending more and, consequently, will have a lower level of propensity for indebtedness. It is interesting to note that there are individuals who spend equal to what they earn (34.3%) and others who spend more than they earn (16.2%). Thus, it is noted that their expenditures are not being controlled or are out of control, which can cause the individual a higher level of propensity to indebtedness, since the expenses exceed the revenues, resulting in a negative balance.

In the questions related to the propensity to indebtedness, materialism, risk perception and risk behavior of the respondents (Table 3), the means of the answers are considered. It should be emphasized that the issues presented in Table 3 already configure the factors forming factors, a step that will be discussed soon.

Table 3 – Scales used, variables, and respondent means.

Scale	Variable	Mean
Indebtedness	1. It is not correct to spend more money than I make.	4.43
	2. It is better to gather money first and then spend it.	3.88
	3. I know exactly how much I owe in stores, in credit cards, or to the bank.	4.15
	4. I think it is normal for people to be in debt to pay their bills.	2.27
	5. I would rather buy in installments than to wait to gather money to buy in cash.	2.85
	6. It is important to know how to control the expenses in my house.	4.52
	7. I would rather pay in installments even if the total is more expensive.	2.31
	8. People would be disappointed with me if they knew I had a debt.	2.55
	9. There is no problem to have a debt if I know I can pay it.	3.52
Materialism	10. I admire people who possess expensive houses, cars, and clothes.	2.89
	11. I like to spend money on expensive things.	3.55
	12. My life would be much better if I had things I actually do not have.	3.16
	13. Buying gives me pleasure.	3.17
	14. I would be happier if I could buy more things.	3.33
	15. I like to possess things to impress other people.	2.20
	16. I like to have a lot of luxury in my life.	2.50
	17. It bothers me when I cannot buy everything I want.	2.86
Risk Perception	18. Spending much money is among the most important things in my life.	1.71
	19. Spending a great amount of money on the lottery.	3.71
	20. Accepting being a guarantor for someone.	3.94
	21. Spending money impulsively, without thinking of the consequences.	4.34
	22. Investing in businesses that have great chances of not working well.	4.13
Risk Behavior	23. Lending a great proportion of personal income to a friend or relative.	3.92
	24. Spending a great amount of money on the lottery.	1.60
	25. Accepting being a guarantor for someone.	2.02
	26. Spending money impulsively, without thinking of the consequences.	1.91
	27. Investing in businesses that have great chances of not working well.	1.82
	28. Lending a great proportion of personal income to a friend or relative.	2.12

Source: Elaborated by the authors.

It should be considered that the scales presented in Table 3 have oscillations from one to five (one = strongly disagree, five = completely agree). It is observed that in the propensity for indebtedness the average of respondents' answers was 2.06, that is, the respondents pointed out the options between disagree and indifferent. This value represents that the respondents have, a priori, a lower propensity to indebtedness for the fact that they disagree with the issue of number 4, that is, to consider normal the indebtedness of the people to pay their things (average of 2.26). In addition, respondents agree that it is important to know how to control household spending (average of 4.52).

In relation to materialism, the average found was 2.81. Specifically, questions 11 and 18 can be highlighted. In question 11, it was asked whether the individual likes to buy new and different things, obtaining an average of 3.55, which shows that respondents agree with this al-

ternative. In question 18, respondents disagree that spending a lot of money is among the most important things in life, since the average question was 1.71. By doing so, they exhibit more materialistic behavior, even agreeing that they like to buy new and different things. Thus, one can relate the low level of materialism to consumption and the possible propensity to debt. In the presented results, the level of propensity to indebtedness is low, as well as the level of materialism, corroborating with the results of the research of Kilbourne and LaForge (2010), which pointed out as negative social consequences of materialism the excessive consumerism.

Finally, risk perception and behavior averaged 4.00 and 1.90, respectively. Regarding the perception of risk, issues 19 and 21 stand out. The respondents pointed out the options of moderate risk and a lot of risk in terms of spending large amounts of money in lotteries, which can be perceived with an average of 3.71 of question 19. On the other hand, question 21 addressed how much risk the respondents perceived when they were spending money impulsively, that is, without thinking about the consequences. The result was an average of 4.34, demonstrating that they perceived a lot of risk and extreme risk.

Regarding risk behavior, questions 24 and 28 stand out. Spending large amounts of money on lotteries was a question that was not very likely to be performed by the respondents (average of 1.60), as well as an issue of the respondents lend most of their salary or monthly income to friend (s) and / or family member, being considered an unlikely alternative (average of 2.12).

The verification of the reliability of the scales was the subsequent step of the research in order to construct factors to analyze the propensity for indebtedness, materialism, perception and risk behavior. Internal consistency (Cronbach's alpha) was used to verify the reliability of the scales, which, according to Hair et al. (2005) and Bisquerra, Sarriera and Martinez (2004) should have values higher than 0.7, but in exploratory research there is a decrease in value, being acceptable 0.6.

It should be noted that in the debt-propensity scale, which originally consisted of nine questions proposed by Moura (2005), two questions (8 and 9) were excluded through the Cronbach's criterion for the final construction of the factor, which obtained an alpha of 0.60. It should also be noted that these questions have been recoded because their presentation is inversely proportional. Conversely, in the materialism scale all nine questions proposed by Ponchio and Aranha (2008) were used, obtaining an alpha of 0.84; and in the scales of perception and risk behavior all ten questions suggested by Paulino (2009) were used, obtaining an alpha of 0.83 and 0.60, respectively. According to Hair et al. (2005), the variation of the alpha coefficient between 0.6 and 0.7 represents a moderate intensity of association, whereas the variations between 0.8 and 0.9 represent a very good association intensity.

For the formation of the factors, the propensity factor for indebtedness was calculated for each respondent, based on the average of the answers attributed to questions 1 to 7 (Table 3). The same procedure was adopted for the scales of materialism, perception and risk behavior. The results of the creation of the factors based on the reliability of the scales showed that respondents from Santana do Livramento/Brazil and Rivera/Uruguay presented a level of intermediate materialism, disagreeing with alternatives or being indifferent (factor mean: 2.81). For the perception of risk, an average of 4.00 is observed, indicating that within the five points of the scale the respondents agree with the alternatives, and the higher the level of agreement, the greater the risk perception.

In the risk questions, it was verified that the risk behavior factor indicated a conservative profile (mean of the factor: 1.90), corroborating with the high perception of risk found. Regarding the propensity to indebtedness, a higher mean of the factor (2.06) was identified, indicating that the respondents were between disagree and indifferent in the scale score. As the debt scale presents affirmative issues for debt, the lower the score, the best. In other words, the individual will present lower propensity to indebtedness.

After the creation of the factors, the differences between the socio-demographic and cultural variables were analyzed. Before the tests were carried out, the data were normal through the Kolmogorov-Smirnov test (KS) and it was verified that the sample was not normal, since it presented a value inferior to 0.05, being indicated the accomplishment of not parametric tests. The application of non-parametric tests verified the possible relations between propensity to debt, materialism, perception and risk behavior. Tables 4 and 5 present the Mann Whitney test (1) for up to two groups and the Kruskal Wallis test (2) for more than two groups.

Table 4 – Mann Whitney Test (1) and Kruskal Wallis Test (2)

Indebtedness		Materialism	
Variable	*Sig.	Variable	*Sig.
Gender (1)	0.747	Gender (1)	0.454
Credit card (1)	0.563	Credit card (1)	0.612
Dependents (1)	0.026	Dependents (1)	0.006
Marital status (2)	0.246	Marital status (2)	0.028
Educational level (2)	0.044	Educational level (2)	0.436
Own income (2)	0.077	Own income (2)	0.100
Family income (2)	0.150	Family income (2)	0.561
Credit frequency (2)	0.436	Credit frequency (2)	0.055
Expenses (2)	0.001	Expenses (2)	0.019
Purchase and Credit (2)	0.019	Purchase and Credit (2)	0.074

Source: Elaborated by the authors.

*Significant at 5%

Regarding the results of the factor indebtedness, we can see that there is a difference in the level of propensity to indebtedness in the variables: dependents, schooling, expenses and accounts and credit commitments. These results show that individuals who have a higher level of schooling tend to be less prone to debt (GATHERGOOD, 2012; KEESE, 2012). Matta (2007) emphasizes that financial education is essential in the life of the individual, since it acts by allowing a greater understanding of financial problems and how to organize personal finances, thus minimizing the probability of indebtedness.

In the other results, it was observed that individuals who tend to be less likely to be indebted are those who do not have dependents, who spend less than they earn and who pay all their accounts and credit commitments. In terms of spending, the results corroborate Vieira, Flores and Campara (2014), which showed that individuals who spend more than they earn have a higher level of propensity to debt than those who spend the same or less than they earn.

In the materialism factor the difference is present in the relationship with the dependents, the marital status and the expenses, the less materialistic individuals being those who do not have dependents, who are single and who spend less than they earn. The results approximate the differences identified in the indebtedness factor, demonstrating that materialism can be an important aspect in the financial decision of individuals. Risk factors were then assessed.

Table 5 – Mann Whitney Test (1) and Kruskal Wallis Test (2)

Risk Perception		Risk Behavior	
Variable	*Sig.	Variable	*Sig.
Gender (1)	0.425	Gender (1)	0.006
Credit card (1)	0.137	Credit card (1)	0.078
Dependents (1)	0.004	Dependents (1)	0.493

Marital status (2)	0.016	Marital status (2)	0.379
Educational level (2)	0.184	Educational level (2)	0.423
Own income (2)	0.167	Own income (2)	0.353
Family income (2)	0.089	Family income (2)	0.280
Credit frequency (2)	0.938	Credit frequency (2)	0.230
Expenses (2)	0.179	Expenses (2)	0.026
Purchase and Credit (2)	0.087	Purchase and Credit (2)	0.671

Source: Elaborated by the authors.

*Significant at 5%

In the perception of risk, it was evidenced that there is difference according to the dependents and the marital status. When checking the means of the groups, it was verified that the individuals who have dependents had the highest mean (4.25). On marital status, the largest averages were concentrated on married, separated and widowed individuals. Single individuals presented the lowest mean (3.86), which tend to have a lower perception of risk. Nogueira (2009) points out that the relationship between marital status and risk perception presents different results, but that most studies found that married individuals can obtain higher levels of perception of risk due to the commitment they have with their family, thus avoiding, take on debt.

The risk behavior factor showed that there is a significant difference in relation to gender and expenditures. When evaluating the presented differences, it was noticed that the highest average was attributed to the female gender (2.01), demonstrating that there may be a higher risk behavior than the male gender. This result is in line with the study by Faber and O'Guinn (1992), who argued that women may be more indebted than men because they are more predisposed to compulsive buying behavior, which does not assess the inherent risk of the decision. Regarding the spending profile, those who spend more than they earned had the highest average (2.15) in the risk behavior factor.

The data were analyzed jointly to compare the behavior of Brazilians and Uruguayans (gender and expenses) regarding the propensity to indebtedness. The measures selected for this evaluation comprised the mean, median and standard deviation. The results are expressed in Table 6, created from OLAP Cubes in SPSS®.

Table 6 – Comparison of the propensity to debt according to city, gender and expenses.

About your expenses, you would say that:		Mean			Median			Standard Deviation			
		City*			City*			City*			
		Livra- mento	Rive- ra	Total	Livra- mento	Rive- ra	Total	Livra- mento	Rive- ra	Total	
Indebtedness	I spend more than I earn	Male	2.26	2.21	2.25	2.43	2.21	2.43	0.46	0.71	0.47
		Female	2.21	2.30	2.23	2.14	2.14	2.14	0.48	0.51	0.47
		Total	2.22	2.27	2.24	2.29	2.14	2.21	0.46	0.51	0.46
	I spend equal than I earn	Male	2.20	2.21	2.20	2.29	2.29	2.29	0.43	0.53	0.43
		Female	2.11	2.22	2.13	2.14	2.23	2.14	0.45	0.65	0.50
		Total	2.14	2.22	2.16	2.14	2.23	2.14	0.44	0.60	0.47
	I spend less than I earns	Male	1.91	1.92	1.91	1.93	1.86	1.86	0.52	0.59	0.53
		Female	1.93	1.89	1.92	1.93	1.79	1.86	0.53	0.44	0.51
		Total	1.92	1.91	1.92	1.93	1.86	1.86	0.52	0.52	0.52
	Total	Male	2.05	2.03	2.04	2.00	2.00	2.00	0.50	0.57	0.51
		Female	2.04	2.12	2.06	2.00	2.00	2.00	0.50	0.56	0.51
		Total	2.04	2.08	2.05	2.00	2.00	2.00	0.50	0.56	0.51

Source: Elaborated by the authors.

*The term Livramento was used as an abbreviation of the city of Santana do Livramento, Brazil.

It is evident that the average and median indebtedness of the respondents is in the range of 2 to 3, which represents a more conservative attitude, a result already discussed previously. However, it is also relevant to evaluate in terms of expenditure, gender and municipality. The highest propensity for indebtedness is in individuals who spend more than they earn, who live in Santana do Livramento and who belong to the male gender. In terms of gender, the result corroborates Keese (2012). In view of those who spend less than they earn, consequently, the propensity for indebtedness is reduced. However, it should be noted that, according to the mean (1.93), the female gender surpassed the male in the residents of Santana do Livramento. Thus, the influence of gender on indebtedness is noted, and it is relevant to identify the specific characteristics of men and women in financial terms. In general, the behavior of Brazilians and Uruguayans was similar in the propensity for indebtedness, a fact that may be related to the proximity (geographical, cultural, economic, social) that individuals possess in the Peace Border.

The next and last step was the multiple linear regression analysis, that is, the relationship between indebtedness (dependent variable) and behavioral and demographic variables (independent variables). After the estimation of the model, it was perceived, considering a level of significance of 5%, that the indebtedness is influenced by the risk perception factor and the age variable. Table 7 shows the variables used in the multiple linear regression and the results found.

Table 7 – Multiple Linear Regression Results

Variables	Standardized coefficients	Test t		VIF
		Value	Sig.	
Materialism	0.03	0.39	0.69	1.20
Risk Perception	-0.14	-1.93	0.05	1.08
Risk Behavior	0.14	1.76	0.07	1.20
Gender	0.02	0.23	0.81	1.05
Marital status	0.10	1.25	0.21	1.24
Educational level	-0.04	-0.48	0.62	1.07
Credit card	-0.00	-0.07	0.94	1.11
Age	0.19	2.40	0.01	1.24

Source: Elaborated by the authors.

*Significant at 5%

As for the multiple linear regression, we obtained an adjusted R^2 of 0.054, representing that the independent variables explain 5.4% of the dependent variable (propensity to indebtedness). In general, the model proved to be significant, from Test F (sig. 0.021). Thus, before analyzing the coefficients, the assumptions of the model were verified.

Regarding serial autocorrelation, a coefficient of 1.863 was found, according to the Durbin Watson (DW) test. This coefficient is within the range considered adequate ($1.7557 < d < 2.243$). Also, multicollinearity was verified using the VIF indexes (Table 7), which showed that the variables were close to 1, confirming the absence of multicollinearity.

The last tests performed were the Kolmogorov-Smirnov (KS) test and the Weigh-Weigh test. The KS test had a significance of 0.258, indicating the normality of the residues; and the Pesarán-Pesarán test showed a significance of 0.384, proving that the residues have a homoscedastic distribution. It can be stated, after performing the tests, that the multiple linear regression model is adequate. Considering the validity of the model, it is possible to observe the independent variables that present significant coefficients, being the risk perception factor and the variable age.

In the perception of risk, a coefficient of -0.14 was observed, representing that the individuals with the highest risk perception are less prone to indebtedness due to the negative relation presented. This result is in line with the study by Caetano, Palacios and Patrinos (2011), who pointed out that risk-averse individuals have a better perception of uncertainties in the financial environment and are less likely to take loans, with lower propensity to debt.

Regarding the age variable, a positive coefficient (0.19) was observed, indicating a direct impact on the propensity to indebtedness, that is, the higher the age, the greater the propensity to debt. In this sense, the study of Keese (2012) heads of household over the age of 45 years are more prone to higher burdens and, consequently, the higher the propensity to debt. The literature has empirically demonstrated that age is a variable of significant influence on various financial issues. However, the sense of the relationship may be different, since in some cases the younger ones are more impulsive and debt tolerant and in other cases the older ones exhibit this behavior. In the model presented here, age is the variable that most contributed to explain the propensity to indebtedness, and it is important to consider it in financial credit assessments.

It should also be noted that the variable risk behavior also has an impact on the propensity to debt at the level of significance of 10%. It can be related to the perception of risk, being that from this construct, the individuals will define their behaviors before the indebtedness. Perhaps, therefore, only the perception of risk has presented a more representative significance.

5 FINAL CONSIDERATIONS

This research sought to analyze some issues of consumption and credit, behavioral factors and propensity to indebtedness in the cities of Santana do Livramento/Brazil and Rivera/Uruguay. The proposed objectives were reached, and from the theoretical perspective is a topic of general interest of the society, due to the change in buying habits and specifically the increase of levels of indebtedness. In the case of the present study, a study was applied to individuals living in two cities, from different countries, based on the assumption of possible differences in propensity to debt.

The results showed a sample composed mostly of women, with single individuals, without dependents, with full secondary education, salaried employees, with a limited personal income of up to a minimum wage and with Brazilian and Uruguayan ancestry. In this sense, it should be emphasized that the sample had homogeneous characteristics in the questions investigated in the two cities. Possibly, this profile is linked to the cultural issues of the Peace Border, which implies that due to the geographical approximation of the cities these can become the same.

In credit issues, it was found that respondents use credit cards as a form of payment of their financial obligations. Most respondents suggest using one to two credit cards, which can facilitate the management of commitments and ease of payment. In this scenario, it was observed that in terms of credit dependence to pay off obligations, a portion of respondents (Brazilians and Uruguayans) presented a conservative behavior, while a more aggressive profile was also observed, where respondents rarely or sometimes depended of credit.

Regarding indebtedness, the central theme of the study, it was noticed that the respondents presented a more conservative behavior regarding the propensity to acquire debt. This result can be observed by the factor mean (2.06) and the aspects already mentioned in the credit and consumption behavior. Expanding the analysis of the factors, the participants of the study in Santana do Livramento/Brazil and Rivera/Uruguay demonstrated a higher level of perception of risk and, consequently, a less risky risk behavior. Based on the assumption that financial risk can help in decision making, the propensity to the indebtedness of these individuals is lower.

However, it should be noted that the materialism factor has shown to be slightly higher than the other factors, indicating a tendency of the consumers to acquire material goods in order to supply their needs and desires. This result can be aligned with the diversity of consumption that the Peace Border offers through shopping in the free shops. With this, the incentive to the materialism can, at high levels, cause consumer indebtedness, being this a relevant aspect.

Also evaluating the indebtedness and possible issues that may influence personal financial decisions, regression analysis showed that risk perception and the age variable are factors that may explain the propensity for indebtedness. Although the impact on the dependent variable is small, the relevance of the topic and the importance of analyzing factors that can influence the consumption, credit and indebtedness process are verified, since better decisions can contribute to the economic balance, making families, businesses, governments and other institutions to carry out financial exchanges efficiently. It is possible to conjecture that the variables present in the model that had no influence can have an indirect effect, suggesting for future studies the application of a structural equations modeling to verify the relationships.

As limitations, we highlight the application of the research to an intentional sample, which does not allow the generalization of the results found. Despite the highlighted limitations, indebtedness is an extremely important issue. Recent economic crises have shaped a new consumer profile, which becomes more consumeristic and willing to take more risks, such as debt.

The credit supply has provided consumption to social classes that were previously excluded. The main contribution of this research is the attempt to compare the consumption and indebtedness habits of individuals residing in Brazil and Uruguay. In this way, one can know the profile of the consumer of the Peace Border, being able to develop actions to prevent indebtedness and to assist the individuals who are already in default. Also, awareness in terms of conscious consumption and financial risk assessment.

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