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Explanatory mechanisms of the decision to buy on credit: The role of materialism, impulsivity and financial knowledge

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ABSTRACT

The purpose of this research was to investigate the mechanisms that explain why people choose to buy on credit. The individual characteristics of materialism, impulsivity and financial knowledge were analysed in order to better understand the relationship that exists between payment conditions and the decision to purchase on credit. Two experiments with a total sample of 409 respondents were conducted. Our analyses reveal that the offer of a discount for payment in cash has a negative effect on the propensity to buy on credit, regardless of whether interest was charged or not. Personal characteristics also play an important moderating role: individuals with high levels of materialism and impulsivity tend to buy on credit more. When the type of product is hedonic as opposed to utilitarian, there are larger variations in the average intention to buy on credit.

1. Introduction

Suppose two people are visiting a shopping centre and come across the same shop window, in which there is an announcement for the sale of a new tablet offering various payment conditions ranging from a 10% discount for cash payment to 18 instalments without interest. These two individuals have the same level of financial knowledge and understanding of economics and have similar economic conditions. When they see the announcement, both decide to buy the product: the first one chooses to obtain the good by paying in instalments, because they believe that in doing so “more money” will be left over at the end of the month. The second individual, on the other hand, decides to take advantage of the discount offered by the shop for payment in cash and acquires the product by paying for it right away. What leads one individual to buy the product in instalments and the other to pay in cash?

The consumption decision using credit involves several individual variables, such as consumer knowledge, the perception of the duration of the debt, the charges involved in the operation and mental accounting. In addition to the situation in which the subject lives and their personality, the way in which the information is presented also has an influence on this process (Kamleitner et al., 2012; Achtziger et al., 2015; Kunkel et al., 2015; Vieira et al., 2016). Studies show that the exposure of individuals to advertising that encourages consumption by way of debt, such as interest-free instalments, reduces the perceived financial risk of the operation and increases the intention to buy on credit (Bolton et al., 2006, 2011; Gathergood and Weber, 2017).

Depending on the type of product, consumers differ in their decision-making processes in relation to consumption (Shiv and Fedorikhin, 1999). For example, Tong et al. (2013) showed that priming money increases the likelihood of consumers choosing more prudent alternatives when facing trade-offs between utilitarian and hedonic products. Along the same lines, Besharat et al. (2015) concluded that the type (utilitarian or hedonic) and the timing of debt influence consumers’ debt repayment when managing multiple debt accounts. Individual characteristics are relevant when it comes to understanding the choices involved in buying on credit; individuals who have more information do not always take the best decisions when choosing the form of payment

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(Krugman, 1965; Rothschild, 1979). Prelec and Loewenstein (1998) attribute an increase in spending to the decoupling effect, and identify the idea that paying in cash is more painful because the means of payment with a card reduces transaction costs, since the individual does not (physically) disburse the amount at the time of the purchase.

In this context, this research sought to analyse the individual decision-making process in relation to buying on credit based on manipulations involving different types of products, discounts and interest rates. We assumed that when individuals are presented with different types of products, they tend to have different propensities to buying on credit, mainly by identifying the need to purchase these products. This research, therefore, analysed the influence of individual differences (materialism, impulsivity and financial knowledge) on the relationship between product type and the decision to buy on credit. We discuss the role of marketing and economic psychology in the decision-making process involving consuming by way of credit, considering that consumption using credit is a cognitive process and so individual differences have an explanatory power in decision-making. The theoretical contribution of this research is an explanation of the decision to pay in instalments and the moderations to this effect based on economic psychology variables. The method we used was experimental, with two experiments being carried out to test the research hypotheses that were constructed from the theoretical model.

Because individual choices impact consumers' financial well-being (Brüggen et al., 2017; Netemeyer et al., 2018), studies that help better understand the financial decision-making of consumers have a potential to subsidize and better delineate public policies, promotional campaigns and financial education programs.

2. The decision-making process involved in buying on credit

The decision-making process to buy on credit is defined by Kamleitner et al. (2012) as being a cognitive process of choice to use credit. In their research model, the authors outlined this as being an action that begins with the choice to consume the product and ends when it is paid for, or a debt is incurred in acquiring it. More specifically, the authors separate this logic into three phases: (a) before acquiring the credit; (b) during use of the credit; and (c) during the period when the debt is being paid off. Our study focuses on the first phase, in other words, on the decision to incur debt for the purpose of consumption. Indebtedness here is treated as choosing the option to buy on credit and there is no association with debt default.

The individual decision-making process has its roots in the Neoclassical Theory, one of the basic assumptions of which is the rationality of individuals, who always seek to maximize the utility of their choices. Based on Simon (1957), individual limited rationality comes to the surface, indicating that choices are heuristic. From then on, the field of study tried to understand different choices for individuals who have similar characteristics. The individual decision-making process incorporates social and psychological demands which ends up guiding individuals in their choices.

One of the aspects that influences decision-making, the management of money and financial security is the perception of time (Netemeyer et al., 2018). When considering the trade-offs associated with the availability of present or future money, consumers tend to prefer the availability of present money. This might also influence their propensity to take on debt rather than opt for a cash payment. This is in line with what was proposed by Tversky and Kahneman (1981), who identified buying on credit as a manifestation of framing because individuals prefer to acquire a product and postpone paying for it, because this gives them the feeling of being in possession of money without any association with future payments and interest rates. The stimuli that exist in advertisements for buying products and the offer of credit illustrate the constant encouragement individuals receive to buy (Ponchio and Aranha, 2008; Gutiérrez-Nieto et al., 2017).

We assume there is an impact on the way in which information is presented in consumers' assessments of the content of communication (framing goals). This effect is attributed to the functioning of an intuitive process in which the insertion of small amounts of information in advertising would require the consumer's intuition to act quickly and associatively, enabling them to take a decision and avoid any greater cognitive effort for processing the information (Tonetto et al., 2010). Examples of persuasive communication that encourages payment in instalments are the presentation of payment terms, such as interest-free credit, or payment in cash but without any price discount.

It is known that the propensity to buy on credit is greater under conditions in which, for example, the consumer does not identify the possibility of receiving a cash discount to pay upfront, or does not perceive that any interest is being charged for payment in instalments (Tversky and Kahneman, 1981). Whether the type of product that is purchased is hedonic or utilitarian should not be ignored in this equation. Choosing to consume hedonic products is normally motivated by a desire for fun and pleasure, and usually involves non-essential products and services. In contrast, the purchase of a utilitarian good is motivated by basic needs and involves practical and necessary products and services (Hirschman and Holbrook, 1982).

Prelec and Loewenstein (1998) attribute an increase in spending on credit with paying for utilitarian products, since individuals perceive the benefit of them lasting longer than hedonic ones. Therefore, when a decision to purchase on credit that involves a greater commitment to future obligations is analysed, it is assumed that individuals tend to have greater intention to purchase on credit if it is a utilitarian item; in other words, they will commit to future payments that relate to products involving basic and essential needs. Individuals tend to buy on credit more if the product they acquire is utilitarian rather than hedonic. This gives us the first research hypothesis:

H1: The propensity to buy on credit will be greater/less when the type of product is utilitarian/hedonic.

Individual characteristics such as materialism, impulsivity and financial knowledge may also contribute to an understanding of why debt is chosen (Gutiérrez-Nieto et al., 2017). By materialism we mean the importance attributed to the possession and acquisition of material goods in achieving life's goals or desired states (Richins and Dawson, 1992). The construct is approached from this perspective as being a value for the consumer, evaluated by way of three dimensions: centrality, success and happiness. Highly materialistic individuals believe that the acquisition of material goods is a central objective of life. They also consider the possession of goods to be an indicator of success and of social status and, consequently, the key to happiness (Richins, 2004). Other studies suggest that materialism is not associated with an individual's income, in other words, an individual with a low-income may have materialistic characteristics (Belk et al., 2003); in this case, the availability of credit might increase their consumption levels (Ponchio and Aranha, 2008). Goldberg et al. (2003) also stated that young individuals with high levels of materialism are less capable of adequately managing their personal finances and perform worse financially than those who are not very materialistic.

In this sense it is to be expected that any credit payment conditions offered to a more materialistic individual will strengthen their intention to buy on credit, with their tendency to buy intuitively dominating their decision. On the other hand, we would expect to find less intention to buy on credit among individuals with low levels of materialism; in other words, the higher/lower the level of individual materialism, the greater/lesser will be the effect of the pro-credit conditions on the propensity to buy on credit. Within this context, we speculate that:

H2: The effect of the type of product (utilitarian/hedonic) on the propensity to buy on credit will be moderated by materialism.

Impulsivity in decision processes can result in a situation in which a consumer is obliged to buy something at that precise moment because they are ruled by a feeling of excitement and urgency. This act is different from unplanned purchases, because it involves an experiential desire and if it occurs frequently it may result in the consumer having financial problems, such as indebtedness, for example Baumeister (2002).

Brougham et al. (2011) stated that the use of a credit card, combined with an increase in consumption potential, would facilitate impulse buying. We can imagine, then, that highly immediatist individuals tend to buy on credit more; in other words, the higher/lower their level of individual impulsivity, the greater/lesser their propensity to buy on credit. Within this context, we state that:

H3: The effect of the type of product (utilitarian/hedonic) on the propensity to buy on credit will be moderated by impulsivity.

Another relevant variable in this context was identified by Gallery et al. (2011) and Gutiérrez-Nieto et al. (2017). They found a low level of financial literacy in the world's population and discussed the factors that influence it that have an impact on investment decisions. They perceived that risk preferences and financial choice characteristics have an impact on individual perceptions and choices.

It is believed that the accumulation of knowledge acquired by way of education and/or experience related to financial concepts and products has an influence at the moment the decision to buy on credit is being taken (Gathergood and Weber, 2017); if there are different payment conditions, such as variations in interest rates and/or a discount, the individual will take longer to decide on paying in instalments, so their decision-making will be more rational. It is also assumed that this scenario does not depend on the type of product or degree of involvement with it, since financial knowledge will prevail in the decision-making process.

Therefore, the higher/lower the level of financial knowledge of individuals, the lesser/greater will be their propensity to buy on credit. This reduction in the propensity to buy in instalments is likely to be more pronounced for hedonic products. Within this context, it is expected that:

H4: The effect of the type of product (utilitarian/hedonic) on the propensity to buy on credit will be moderated by financial knowledge.

Fig. 1 summarizes the theoretical model showing the relationships and research hypotheses tested in this study.

3. Experiment 1

3.1. Overview and procedure

The objective of the first study was to assess the main effect of the type of product (utilitarian or hedonic) on the propensity to purchase on credit, specifically hypothesis H_1. The experiment was applied using an online questionnaire and Qualtrics software, with respondents being recruited by means of groups on Facebook. The factorial design of Experiment 1 was of the 2x2 between subjects type, with cross-checking of two manipulated and independent variables: product (notebook or book) and product type (utilitarian or hedonic). A total of 130 respondents took part in this experiment, the conditions and situations of which were randomly distributed among them. The experimental cells are: (i) a notebook with utilitarian characteristics; (ii) a notebook with hedonic characteristics; (iii) a book with utilitarian characteristics; and (iv) a book with hedonic characteristics.

Scenarios were presented to the respondents. They were initially presented with a situation in which the individual was in a shopping centre. The characteristics of the notebook and the book were then described. The scenarios are available in Appendix A. The individual then turned to a page where they were asked to answer the following question: "If you were to acquire the previous product, which form of payment would you choose?" The response options were immediate payment or in instalments. Participants were also asked the following question: "If you had to define on a scale, where 1 represents 'not at all likely' and 7 'very likely', how inclined would you be to pay for this purchase in instalments?" This question aimed to measure the propensity to purchase on credit. Another question was then asked ("How would you define this product's use?") as a way of checking manipulation of a utilitarian or hedonic perception.

Control questions then followed that aimed to check how the 'gender', 'age' and 'income' variables interfere in the relationships studied. To ensure realism, all content was drawn from real notebook and book purchase situations, based on advertisements taken from leading e-commerce web portals in the Brazilian market.

3.2. Manipulation check

Two independent and manipulated variables were presented in this first experiment, each with two levels. We carried out comparison tests of the averages to show the perception of the type of product. The results for the notebook with a description suggesting hedonic ($M_{\text{hedon}} = 3.85$; $M_{\text{utilit}} = 2.43$; $F(1,128) = 6.48$; $p = 0.012$) and utilitarian ($M_{\text{hedon}} = 4.83$; $M_{\text{utilit}} = 6.31$; $F(1,128) = 5.78$; $p = 0.018$), and also for the book with a description suggesting hedonic ($M_{\text{hedon}} = 4.56$; $M_{\text{utilit}} = 2.65$; $F(1,128) = 36.93$; $p < 0.001$) and utilitarian ($M_{\text{hedon}} = 4.20$; $M_{\text{utilit}} = 5.40$; $F(1,128) = 13.28$; $p < 0.001$) confirm the effectiveness of the manipulation of the situations presented to the respondents.

3.3. Results and discussion

Initially we constructed a MANOVA (multivariate analysis of variance) model based on the data from Experiment 1, in which we used two independent variables: product (notebook and book) and product type (utilitarian and hedonic). We used type of payment (immediate or credit/in instalments) and the buying on credit propensity scale as dependent variables. The 'education', 'gender', 'age' and 'income' covariables had no significant effects on the results.

Buying on credit was chosen more for the notebook ($M_{\text{note}} = 0.65$; $s = 0.48$) than for the book ($M_{\text{book}} = 0.29$; $s = 0.45$). To measure the intention to buy on credit, the previous result was repeated, in which there was greater intention to buy the notebook ($M_{\text{note}} = 4.60$; $s = 2.15$) in this way than the book ($M_{\text{book}} = 3.21$; $s = 2.31$). We can imagine that part of this result is explained by the nominal purchase values of the notebook and book, the former being more expensive (as shown in Appendix A), which would encourage individuals to choose to pay larger amounts in instalments rather smaller amounts.

When we define the form of payment as a dummy variable for the 'credit' option, the MANOVA test for the product ($F(1, 243) = 7.86$; $p = 0.005$) shows a significant effect in which, when the notebook is compared with the book, there is a tendency to buy on credit more and when this product is utilitarian this choice increases. Research hypothesis H_1, therefore, can be accepted for this study (also see Fig. 2).

For the 'intention to buy on credit' dependent variable we obtained significant results for the product ($F(1, 243) = 123.11$; $p < 0.001$). When the same effect of the above tests is repeated

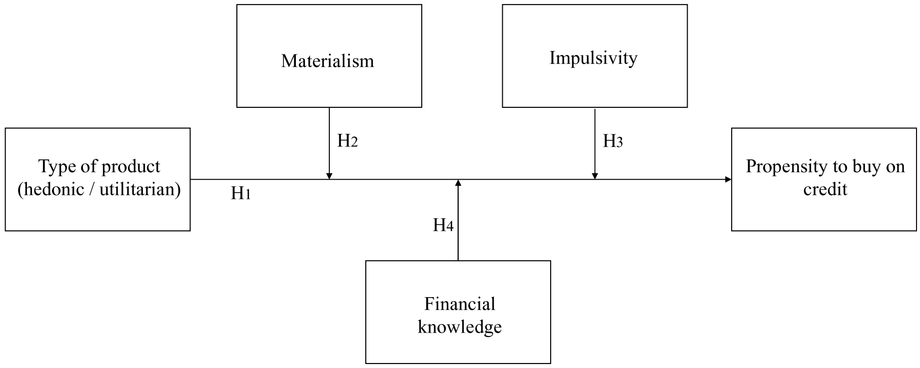

Fig. 1. Research model.
Source: Prepared by the authors.

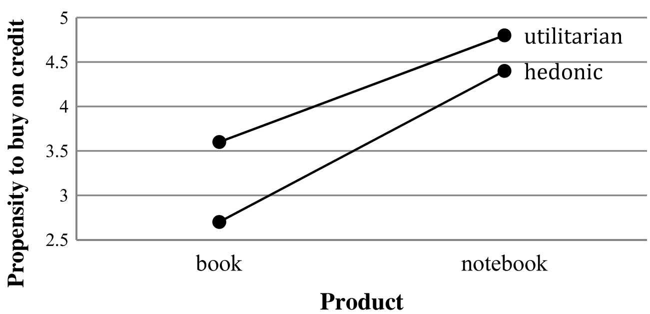

Fig. 2. A product by type of product effect—Experiment 1.
Source: Prepared by the authors.

and the product is a notebook, the individual's propensity to buy on credit tends to increase.

There is no significant main effect for the first type of product, the notebook, on the propensity to buy on credit ($F(1, 128) = 0.14$; $p = 0.709$). We adopted the ANCOVA analysis, therefore, for assessing the possibility that the covariables (gender, age and monthly family income) have an influence on the dependent variable (propensity to buy on credit). We also included the product type independent variable in the model. Once again, there was no significance in the variables measured for the first type of product, the notebook, in the propensity to by on credit ($F(1, 128) = 0.24$; $p = 0.625$), even when the covariables were included. The effects on the propensity to buy on credit for the second product, the book, are significant for the tests we carried out ($F(1, 128) = 40.99$; $p < 0.001$).

We then carried out the ANOVA analysis for the second independent variable of this model, the book, manipulated according to its characteristics between utilitarian and hedonic; the results were significant ($M_{\text{hedon}} = 2.86$; $M_{\text{utilit}} = 3.98$; $p < 0.05$). We noticed, therefore, that the individuals had more intention of buying the utilitarian book on credit than the hedonic book.

4. Experiment 2

4.1. Overview and procedure

The objective of the second study was to test hypotheses H_2, H_3 and H_4 with regard to the 'materialism', 'impulsivity' and 'financial knowledge' moderations on the relationship between product type and the propensity to purchase on credit. In Experiment 2 we used a 2x2x2 between subjects factorial design, with the independent variables being manipulated: product type (utilitarian or hedonic), payment condition (cash or credit) and discount (with or without). The planned form of the experiment aimed to present a situation that alternated between utilitarian or hedonic, in which the individual would be looking to buy a television. There were also situations with different payment conditions and the aim of checking the propensity of the subject to use one or the other. The scenarios (available in Appendix A) were randomly distributed every time a respondent started the survey, thus eliminating possible bias and reducing the limitations inherent in the method chosen (Wilson et al., 2010). The eight experimental cells had a total of 279 respondents who were recruited by way of Facebook social network groups and who completed the questionnaire online using the Qualtrics software.

To operationalize the study, each participant was shown a survey presentation screen and then the scales that were used to measure the moderators (the materialism, impulsivity and financial knowledge of the participants). Next, the respondents were presented with the scenario of buying a TV with manipulation (utilitarian or hedonic). The following message was displayed in the next block: "The cost of the TV you previously saw is R$ 3000. Its payment conditions are as follows ...". They were then shown the possible forms of payment.

To simulate reality, all content was prepared from the real, online TV purchase situations of leading stores in the Brazilian market. Both the product characteristics and the payment conditions corresponded to the individuals' possible purchase moments.

After setting out these options, each interviewee was asked about their propensity to buy the product on credit (Likert 7-point scale). To confirm their propensity, the following question was then asked: "If you bought the TV, what form of payment would you choose?" The reply possibilities were cash or on credit/in instalments. Then the manipulation checks and control variables were presented.

4.2. Measures

The 'materialism' construct was operationalized by way of five items on a 5-point Likert scale; the items had already been adapted to fit the Brazilian context by Ponchio and Aranha (2008), based on the instrument proposed by Richins (2004).

The 'impulsivity' moderator was operationalized on the basis of Rook and Fisher's (1995) buying impulsiveness scale, comprising nine items anchored by a 5-point Likert scale, ranging from "totally disagree" to "totally agree". We chose to use only three items in this study in order not to lengthen the time taken responding to the questionnaires.

Finally, the participants responded to two sets of multiple choice questions adapted from Rooij et al. (2011). Both the first set (basic knowledge), which was aimed at measuring basic financial

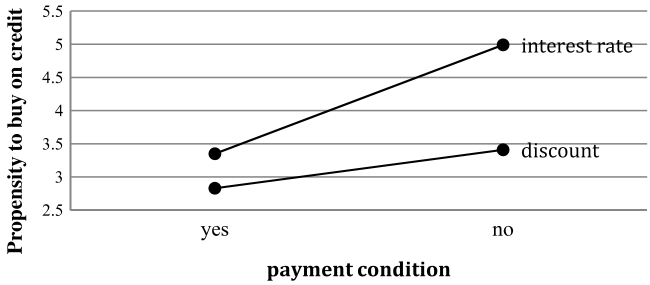

Fig. 3. A payment condition by type of communication effect—Experiment 2.
Source: Prepared by the authors.

skills, and the second (advanced knowledge), sought to explore their knowledge level of complex financial instruments. In this study we chose to verify only the respondents' basic level of financial knowledge. The financial knowledge construct was therefore operationalized as the number of basic knowledge questions (from a total of three) that were answered correctly.

The items for each of the three scales are available in Appendix B.

4.3. Manipulation check

Manipulation was checked by way of an ANOVA test in order to identify whether the respondent noticed it. Using an averages test as to the perception of product type (utilitarian or hedonic), the following possibilities were considered: when the type of product on the screen was hedonic ($M_{\text{hedon}} = 5.03$; $M_{\text{utilit}} = 4.33$; $F(1,277) = 14.61$; $p < 0.001$) and when it was utilitarian ($M_{\text{hedon}} = 3.76$; $M_{\text{utilit}} = 4.47$; $F(1,277) = 16.79$; $p < 0.001$). This confirmed the effectiveness of the manipulation. For the two other independent variables, when what changed was only the presentation of the information (with/without interest and with/without a discount), no manipulation check was carried out; after all, the scenarios changed with the information presented to the respondent.

4.4. Results and discussion

The results enabled us to identify that the main effect is significant; there is a main effect of the discount on the propensity to buy on credit ($F(1,271) = 15.92$; $p < 0.001$), and a main effect of the interest ($F(1, 271) = 18.12$, $p < 0.001$). We can also ascertain the significant effect of the interaction between the above factors ($F(1, 271) = 19.21$; $p < 0.001$), in other words, if there is a discount or interest in the conditions, the propensity to buy on credit is less. For the analyses related to product type, however, the results were not significant in this second experiment. We see, therefore, that there is a negative impact on the propensity to buy on credit when there is a discount for paying in cash; if there is no cash discount, the propensity to buy on credit increases. Fig. 3 illustrates some results.

The moderation analyses for the hypothesis tests in Experiment 2 were carried out using the PROCESS macro (Hayes, 2013) – Model 1, with 5000 bootstrap samples, bias correction and standard errors that are consistent with heteroscedasticity – where the independent variable was first identified as the discount condition, the interest condition was identified as a covariable and each moderating variable of the model was identified as a moderator, one at a time. The interest condition was then inverted as an independent variable and the discount as a covariable.

The moderator that was tested (materialism) first showed a significant negative effect for the discount condition ($\beta = -1.03$; $t = -3.91$; $p < 0.001$) and for the covariable as the interest rate ($\beta = -1.09$; $t = -4.14$; $p < 0.001$) and a positive result for materialism ($\beta = 0.43$; $t = 2.40$; $p < 0.001$) on the propensity to buy on credit. There is an effect ($\beta = -0.89$; $t = -2.30$; $p < 0.001$) for a high materialism value (+1 standard deviation), whereas for a medium value (average) there is another impact ($\beta = -1.03$; $t = -3.91$; $p < 0.001$). For a low materialism value (−1 standard deviation) a significant influence ($\beta = -1.17$; $t = -3.18$; $p < 0.001$) can still be observed. There is, therefore, a negative moderation effect, which is the result of the interaction between the materialism level and the discount condition, thus corroborating the studies of Ponchio and Aranha (2008).

In observing the conditional effect, the tests suggested significant negative effects for the level of impulsivity, due to the discount for cash condition on the dependent variable, between −1.44 ($\beta = -0.95$; $t = -1.97$; $p < 0.001$) and 2.16 ($\beta = -1.37$; $t = -1.97$; $p < 0.001$), with the maximum impulsivity value being 2.26 and the minimum −1.74. The second moderation test of impulsivity has a significant and negative effect for interest ($\beta = -1.11$; $t = -4.25$; $p < 0.001$) and for the discount covariable ($\beta = -1.08$; $t = -4.14$; $p < 0.001$) and a positive effect for impulsivity ($\beta = 0.36$; $t = 2.49$; $p < 0.001$).

Moderation analysis for the level of financial knowledge showed a significant negative effect of the discount ($\beta = -1.15$; $t = -4.36$; $p < 0.001$), the interest covariable ($\beta = -1.10$; $t = -4.22$; $p < 0.001$) and financial knowledge ($\beta = -0.37$; $t = -2.55$; $p < 0.001$) on the propensity to buy on credit.

We concluded, therefore, that individuals who exhibit high levels of materialism and impulsivity tend to buy on credit more. This effect is reversed for the financial knowledge variable, so that there is a reduction in the propensity to purchase on credit as financial knowledge increases. In the scenarios that present a discount for the payment in cash condition, the results are similar to those we saw in contexts without a discount, in other words, for materialism and impulsivity the propensity to buy on credit increases as the level of the moderator also increases. There is a reduction in the intention to buy on credit for financial knowledge. There is, therefore, evidence to support the H_2, H_3 and H_4 hypotheses based on the results of Experiment 2. These results converge with the studies of Brougham et al. (2011), which showed that highly materialistic and impulsive individuals tend to buy on credit more, unlike those who have a lot of financial knowledge, as suggested by Gathergood (2012).

5. Final discussion and conclusions

The present study contributes to the fields of economic psychology and consumer behaviour by broadening existing knowledge about financial decision-making in the context of purchases on credit, an emerging issue that still has gaps that require development. The results reported are evidence that the analysed antecedents of a psychological nature have a direct effect on the intention to buy on credit and in this sense, are in line with the model presented by Kamleitner et al. (2012). We specifically identified that payment terms, such as interest and a discount, and product type (utilitarian or hedonic), influence the intention to purchase on credit. It was also possible to check the positive influence of materialism and impulsivity in this relationship, and the negative influence of financial knowledge.

Previous studies have demonstrated the influence of campaigns and marketing on indebtedness, whether by analysing credit card purchases and considering different product types (Tong et al., 2013), or by checking message configuration effects (Tonetto et al., 2010). Based on the research findings, we can conclude that the interactions of factors related to individual characteristics (materialism, impulsivity and financial knowledge) have a greater influence on decisions to consume by way of credit, thus boosting the expected effects, than just manipulation of the payment conditions or product types; in other words, individual differences have the power to potentialize decisions to buy on credit. The payment terms presented to the consumer have a direct and positive effect on the propensity to purchase on credit, so that if the retail establishment offers a discount for cash (Experiment 2), or interest (Experiment 2) when paying in instalments, there tends to be less intention on the part of individuals to pay in instalments. We also managed to shown that if the product is of a utilitarian nature (Experiment 1), there is a greater intention to buy on credit and if it has a larger nominal value this effect is even bigger.

In addition to the main effects tested, we were able to see that the moderating effects that identified individual differences are significant; in other words, when assessing the more behavioural aspects of individuals, such as materialism and impulsivity, the intention to buy on credit tends to be greater. On the other hand, in situations that define a consumer who is more rational in their decision making and who has a lot of financial knowledge, the intention to purchase on credit is reduced. Finally, we can conclude that offering a discount or interest in the payment conditions reduces the propensity to purchase on credit. Once again, individual differences moderate this relationship.

Research that addresses behaviours and factors of indebtedness has proved to be essential, both from the theoretical and practical points of view (Brüggen et al., 2017). Considering the Brazilian context and given the high and increasing charges for levels of indebtedness and default, research that identifies the effect of different marketing campaign scenarios on the intention to buy on credit becomes important (Ponchio et al., 2015). This is why an analysis of the influence of product type and the payment conditions offered to the consumer in a situation of possible indebtedness, contributes directly to research in the consumer behaviour area, specifically in the consumption of financial products.

From the practical or managerial point of view, it is also possible to list some of the contributions made by the present research. We can see that the company only has partial influence over the option of the consumer for buying in instalments; in other words, presenting the consumer with a discount or not, which is an aspect that can be controlled by management, has a strong influence on intention to purchase on credit. But the study also pointed out that there are other individual variables that are outside corporate control and that influence buying on credit, such as high levels of materialism and impulsivity (which increase the propensity to buy on credit), and financial knowledge (that has the opposite effect). This finding is relevant because it allows organizations to consider other factors that are involved in the consumer decision-making process when devising their pricing and promotional strategies, for example.

Future studies can examine not only the same research hypotheses for different message configurations, other products and other prices that were not addressed in this research, but the inclusion of other control variables, such as the culture variable. We also suggest creating new stimuli on the effect of the discount on the propensity to purchase on credit (presented in H_1), in view of the significance that this stimulus demonstrated in Experiment 1. There could also be greater reflection on the results of Experiment 2 (presented in H_2), based on the effect of product type on the decision to pay for it in instalments. As limitations we can mention that in all the scenarios, the price was identical for each product, whether paid for in cash or by credit in instalments, and the capacity to pay in cash was not measured.

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Appendix A

Experiment 1

The product type in the scenarios was manipulated following attributes related to utilitarian and hedonic concepts. The utilitarian consumption situation involved a notebook, the purchase of which would be related to daily use and a real need of the individual:

Suppose you're starting a business and you're looking for computers to equip your sales room. So you decide to go to the shopping centre to look for some alternatives. When you get there, you see the following product in a shop window:
Notebook E5-573-347G Intel Core i3 4GB 1TB LED 15.6″ *Windows 10 – Graphite*
From R$ 2099.00 - (a 9% discount)
For: R$ 1899.00
10 monthly instalments of R$ 189.90 (interest free)
You then go into the shop prepared to buy this computer.

For the notebook for hedonic consumption, on the other hand, we tried to identify a purchase attributed more to a wish than a need:

Suppose you are out with your family on your day off and you decide to go to a shopping centre to get something to eat. When you get there you see the following product in a shop window:
Notebook E5-573-347G Intel Core i3 4GB 1TB LED 15.6″ *Windows 10 – Graphite*
From R$ 2099.00 - (a 9% discount)
For: R$ 1899.00
10 monthly instalments of R$ 189.90 (interest free)
This is when you remember that it might be a good idea to buy a new computer. After all, your old one is not as fast as it used to be and you'd like a more powerful notebook.

The same scenarios were then manipulated for a second product, a book, the purchase of which was associated with a utilitarian or hedonic use. We followed the same manipulation logic as before:

Suppose that you're a teacher on a technical course in the cookery area and you're preparing the material for a new subject you're going to teach, "Brazilian Cooking". One day you go to a bookshop to look for material for your work and you come across this book.
A Gastronomic Trip through Brazil - Caloca Fernandes
Reduced from R$ 245.90
to R$ 135.20. Save R$ 110.70
Or 6 monthly instalments of R$ 22.53
This is when you enter the shop prepared to buy this book.

Suppose you are doing a technical course in cooking, which you've always loved. One day you're in the shopping centre looking for a new TV when you come across this book.
A Gastronomic Trip through Brazil - Caloca Fernandes
Reduced from R$ 245.90
to R$ 135.20. Save R$ 110.70
Or 6 monthly instalments of R$ 22.53
This is when you enter the shop prepared to buy this book.

Experiment 2

The product type in the scenarios was manipulated following attributes related to utilitarian and hedonic concepts. The utilitarian consumption situation presented a more practical and basic product that would meet a basic needs situation related to the acquisition of the product, relating its purchase to an act in daily life:
Now, suppose you're looking for a new television to buy for your home because your old one has broken and you need this one. The salesperson offers you the following 29″ *LED TV with HD Resolution, built-in speakers, and HDMI and USB connections.*

For the group that was presented with a product for hedonic consumption, we tried to identify a bolder way of using the television, with more user facilities than just the basic ones:
Now suppose you're looking to buy a new television because you don't like your old one anymore because it doesn't have Internet access. The sales-person offers you the following 65″ LED TV with Smart TV, Smart Magic Remote Control, 4 3D Glasses and Wi-Fi.

Appendix B

Measure of the level of materialism (Richins, 2004, ***as adapted by*** Ponchio and Aranha, 2008)

I admire people who own homes, cars, and expensive clothes.

I would be much happier if I could buy more things.

It's very important to me that other people like the things I buy.

Having material things is one of the most important achievements in life.

When I buy something, I usually choose the brand that my friends/relatives will approve of.

Measure of the level of impulsivity (***adapted from*** Rook and Fisher, 1995)

I have a tendency to buy spontaneously and immediately, without thinking too much.

I've already regretted buying things I didn't really need.

I like being one of the first to try something new (e.g. new technology).

Measure of the level of financial knowledge (***adapted from*** Rooij et al., 2011)

Suppose you have R$ 100 in a savings account at an interest rate of 10% a year. After 5 years, how much will you have in your savings account? Consider that no money has been deposited in it or withdrawn from it. [more than R$ 150.00; less than R$ 150.00; exactly R $ 150.00; I don't now]

Imagine that the interest rate on your savings account is 6% a year and the inflation rate is 10% a year. After 1 year, how much will you be able to buy with the money from that account? Consider that no money has been deposited in it or withdrawn from it. [more than today; less than today; the same; I don't know]

Suppose that José inherits R$ 10,000.00 today and Pedro inherits R$ 10,000.00 in three years' time. Because of the inheritance, who will have most money? [Joseph; Pedro; both will have the same amount; I don't know]

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Erratum

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(5) "FDI response to political shocks: What can the Arab Spring tell us?" [Journal of Behavioral and Experimental Finance, 2019; 24: 100233] https://doi.org/10.1016/j.jbef.2019.07.005.

(6) "oTree: The Equality Equivalence Test" [Journal of Behavioral and Experimental Finance, 2019; 22: 214-222] https://doi.org/10.1016/j.jbef.2019.04.001.

(7) "A serial mediation model of financial knowledge on the intention to invest: The central role of risk perception and attitude" [Journal of Behavioral and Experimental Finance, 2018; 20: 74-79] https://doi.org/10.1016/j.jbef.2018.08.001.

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