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IMPLICATION OF FINANCIAL BEHAVIOR OF ENTREPRENEURS IN BRAZIL

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ABSTRACT

This study analyzed the effect of financial behavior on compulsive buying, indebtedness, and materialism among entrepreneurs in Brazil. The research, of a descriptive nature, employed a data survey with 149 Brazilian entrepreneurs, applying confirmatory factor analysis, correlation, and linear regression techniques using SPSS software. The term "entrepreneur" was used broadly, without distinguishing between specific types such as individual microentrepreneurs (MEI), startups, or executives, in order to encompass a wider range of entrepreneurs who identify as such, particularly on social networks like LinkedIn. The results indicated that entrepreneurs' financial behavior does not significantly impact indebtedness or materialism, but there is a relationship between financial behavior and compulsive buying. Entrepreneurs with higher financial literacy tend to be less prone to this behavior. Compulsive buying, in turn, was found to be related to both indebtedness and materialism. The study suggests that financial literacy programs for entrepreneurs should adopt a holistic approach, integrating technical, behavioral, and psychological aspects, with a focus on reducing compulsive buying. This could help decrease indebtedness and materialism, promoting more balanced and sustainable financial management. The findings also provide a foundation for the development of public policies aimed at the financial well-being of entrepreneurs in Brazil. The contribution of this study lies in integrating different factors that affect entrepreneurs' financial behavior, offering a broader and more contextualized understanding of this group.

Keywords: Financial behavior. Materialism. Indebtedness. Compulsive buying.

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1 INTRODCTION

Brazil is a developing country, and increasingly, individuals have been seeking financial institutions to carry out financial transactions, raise funds through loans, or invest in financial instruments (Potrich & Vieira, 2018). According to Kühl et al. (2016), the lack of adequate information on financial matters can contribute to the emergence of undesirable scenarios, such as indebtedness beyond one's income capacity. In this context, financial knowledge proves vital for successful resource management. According to Potrich et al. (2016), contemporary society increasingly emphasizes the need for self-sufficiency and responsibility, making financial behavior an essential element for achieving success in adulthood. Potrich et al. (2016) also highlight that the cultural context in which we are immersed demands these skills intensively.

For Kadoya and Khan (2020), financial literacy enables individuals to understand the nature and behavior of economic matters. As Anderloni and Vandone (2011) note, financial education is a strategy that provides individuals with the ability to understand and manage their finances effectively, preventing the accumulation of undesired debt. In this regard, Potrich et al. (2016) emphasize the importance of expanding knowledge about financial practices so that decisions yield the desired results, avoiding user frustration due to losses or excessive indebtedness. According to Kühl et al. (2016), as financial products become more accessible, there is a significant increase in personal indebtedness. This situation generates problems both for individuals and financial institutions, since defaults also rise (Potrich et al., 2016). In this context, financial education would provide individuals with greater skills for making assertive decisions and using resources more efficiently (Burchi et al., 2021).

The business environment is no different. For entrepreneurs, challenges are daily, which underscores the importance of financial knowledge for managing organizational resources (Burchi et al., 2021). According to Raupp and Beuren (2009), not everyone possesses the skills necessary to start a business from scratch. Raupp and Beuren (2009) further argue that some characteristics are inherent to the individual, while others can be developed over time.

In addition to the challenges of entrepreneurship in Brazil, the lack of preparation among new entrepreneurs may be a determining factor in the fate of new businesses (Burchi et al., 2021). Raupp and Beuren (2009) state that micro and small enterprises are not always prepared for the effects of increased competitiveness, as they have a less sophisticated business structure compared to medium and large enterprises. Raupp and Beuren (2009) also note that organizations are not always managed by individuals with experience or training for this role, yet they represent an important segment within the market.

This study aims to analyze the effect of financial behavior on compulsive buying, indebtedness, and materialism among entrepreneurs in Brazil. The present study examines the construct of financial behavior derived from the work of Potrich et al. (2016) and Potrich and Vieira (2018) to measure the level of financial literacy.

The research is justified because it is necessary to assess whether entrepreneurs possess low or high levels of financial literacy, in order to determine how prepared these managers are to make informed decisions and manage their financial resources without incurring losses, optimizing the use of resources to maximize outcomes. These organizations are responsible for creating numerous job opportunities in the labor market and, consequently, contribute to driving the economy and the development of the environment in which they operate.

Furthermore, the study is justified by its integrative approach, analyzing the interaction between financial behavior, compulsive buying, indebtedness, and materialism specifically within the context of Brazilian entrepreneurs. Many existing studies address these aspects in isolation or in different contexts, such as general consumers or distinct demographic groups, but they do not extensively explore how these factors intertwine to form a financial behavioral profile of entrepreneurs. In addition, the use of a sample of 149 Brazilian entrepreneurs, based on selfidentification as "entrepreneurs" on LinkedIn, provides a more holistic and comprehensive view of this population. The research focuses on identifying behavioral patterns rather than solely the isolated effects of the analyzed factors, making it broader and more contextually grounded.

The term "entrepreneur" was adopted broadly, without making specific distinctions between types of entrepreneurs, such as individual microentrepreneurs (MEI), startups, or executives, due to the nature of the survey conducted. The sample consisted of individuals who self-identify as entrepreneurs, regardless of the formalization of their businesses or the scale of their operations. This choice of terminology was based on how these individuals present themselves on professional networks, such as LinkedIn, where the classification of "entrepreneur" serves as a form of identification, encompassing small business owners as well as startup executives. Therefore, the focus of the study was to understand the financial behavior of these individuals as entrepreneurs, without specific segmentation, aiming to provide a broader depiction of this population.

As a contribution, this study may offer insights for the development of public policies and financial education programs aimed at improving the financial well-being and decision-making of entrepreneurs in Brazil.

2 THEORETICAL FRAMEWORK AND HYPOTHESES

2.1 Financial Literacy (Financial Behavior)

The Organisation for Economic Co-operation and Development (OECD, 2013) defines financial literacy as a combination of awareness, knowledge, skills, attitudes, and motivated behaviors that enable individuals to make financial decisions and achieve financial well-being. Potrich et al. (2016) emphasize that effective learning of personal finance plays a central role in shaping attitudes and behaviors related to the management of personal finances.

According to Marco Canton and Barichello (2019), it is common in the literature to use the term "financial education" to denote a concept similar to the one adopted here, "financial literacy." Huston (2010) notes that 47% of the studies reviewed use the terms financial literacy and financial education interchangeably. Atkinson and Messy (2012) argue that individuals with low financial literacy face greater challenges in managing their personal finances and making logical and informed financial decisions. In contrast, Lusardi and Mitchell (2011) state that consumers with a high level of financial knowledge demonstrate greater ability to create personal budgets, save, and plan for the future, reinforcing the importance of financial education.

Campbell (2006) asserts that individuals with financial education make fewer errors and are better positioned to engage in dynamic, flexible, and profitable investments. According to Atkinson and Messy (2012), financial literacy provides positive behavior-driven outcomes, such as spending planning and building financial security. However, certain behaviors, such as credit misuse, have the potential to reduce financial well-being. Financial attitudes, in turn, are shaped by beliefs and influence decisions regarding specific behaviors, consequently significantly affecting the personal decision-making process (Potrich & Vieira, 2018).

Potrich and Vieira (2018) address three behavioral factors related to financial literacy: materialism, compulsive buying, and indebtedness propensity. Materialism has been extensively studied from different perspectives, including marketing, psychology, education, and social anthropology. Within the context of behavioral finance, it has been observed that individuals with higher materialistic values exhibit greater financial concerns and higher levels of debt (Gardarsdottir & Dittmar, 2012). Pradhan et al. (2018) further explained that materialism influences credit card usage, thereby increasing the propensity for impulsive buying.

Research conducted by Richins (2011) identified that materialism, through attitudes related to borrowing money, can influence excessive credit use and, consequently, lead to indebtedness. This occurs because materialistic individuals are more likely than others to believe that borrowing money for certain types of purchases is appropriate and acceptable. This led the author to conclude that another way to reduce the propensity for indebtedness would be a change in financial attitudes, which is one of the elements linked to financial literacy.

Pham et al. (2012) also found that financial management practices significantly predicted compulsive buying behavior after controlling for materialism, and these practices also reduced the influence of materialistic values on compulsive buying behavior. These results support the inclusion of money management components, achievable through financial literacy, in current psychosocial interventions and indicate that highly materialistic individuals with inadequate financial management practices are more likely to experience compulsive buying problems.

Confirming this evidence, Donnelly et al. (2012) found that money management is significantly positively related to increased savings and negatively related to compulsive buying, even after controlling for numerous sociodemographic variables. Alemis and Yap (2013) also found that compulsive buying is negatively correlated with money management practices among financially literate individuals, where the role of financial literacy, by mediating money management practices with compulsive buying, supports the development of money management skills to prevent and address compulsive buying. Furthermore, previous studies have successfully demonstrated the effectiveness of group-based cognitive-behavioral interventions, which include cash management instruction, in reducing compulsive buying behavior (Mitchell et al., 2006).

The study by Potrich and Vieira (2018) indicated that financial literacy had an inverse impact on the propensity for indebtedness, specifically regarding financial literacy. Additionally, Gardarsdottir and Dittmar (2012) point out that materialism is a strong predictor of money management skills, making a comprehensive understanding of financial literacy necessary. In this sense, financial literacy is much broader than merely developing money management skills and is essential for an individual to be considered financially literate. Specifically, Gardarsdottir and Dittmar (2012) highlight the importance of financial literacy courses, particularly for young people who are frequently exposed to materialistic messages from commercial media, conveying the idea that happiness, beauty, and popularity can be purchased. Furthermore, materialistic individuals may experience the “pain of knowing” about their financial situation, as money management can highlight the discouraging implications of their purchasing behaviors (Donnelly et al., 2012).

Based on these aspects, the following relationship is proposed: the higher the level of financial knowledge, the lower the propensity for indebtedness. This leads to the first hypothesis of this study: **H1: Financial behavior negatively impacts the propensity for indebtedness among entrepreneurs**.

The expansion of money and financial services has resulted in easier access to funds, which, in turn, has increased individuals’ propensity for indebtedness (Falahati & Sabri, 2015). Related to this, an individual’s devotion to material desires, the urge to possess more material goods, and attachment to possessions to achieve desired conditions ultimately determine and foster materialism in individuals (Omar et al., 2014). In light of this, the second hypothesis is proposed, which posits that more materialistic individuals are more likely to incur consumer credit, with stronger positive attitudes toward indebtedness. In other words, the higher the level of materialism, the greater the propensity for indebtedness (Ponchio, 2006).

In this regard, Gardarsdottir and Dittmar (2012) found that materialism is a determining factor for an individual’s propensity for indebtedness, and that more materialistic individuals tend to have a more favorable attitude toward acquiring debt than non-materialistic individuals. In the Brazilian context, Ponchio (2006) concluded that materialistic people exhibit a more favorable attitude toward credit use and are more prone to accumulating debt. Cakarnis and D'Alessandro (2015) confirm this by stating that individuals with higher levels of materialism are likely to misallocate their resources and, consequently, have a greater propensity for indebtedness.

According to Richins (2011), highly materialistic individuals often reference those from higher socioeconomic levels, which indicates that, in order to meet consumption demands, they are more likely to engage in behaviors conducive to indebtedness. Based on this, it is expected that this study will support this relationship, in which materialism impacts the propensity for indebtedness through a positive association. In other words, the higher the level of materialism, the greater the propensity for indebtedness. Therefore, we have: **H2: Materialism positively impacts the propensity for indebtedness among entrepreneurs.**

The main consequence of compulsive buying behavior is a higher propensity to accumulate debt (Achtziger et al., 2015). Purchasing material goods is a normal and routine process (O'Guinn & Faber, 1989); however, in specific situations, purchases can be sudden, unplanned, and associated with an uncontrollable desire to buy, accompanied by feelings of pleasure and excitement. In these cases, there is a particular type of buying behavior called compulsive buying (Lejoyeux & Weinstein, 2010).

The study by Potrich and Vieira (2018) concluded that compulsive buying positively impacts the propensity for indebtedness. Achtziger et al. (2015) argue that the primary consequence of compulsive buying behavior is a greater likelihood of becoming indebted. Compulsive acquisition of products, often unnecessary, creates budgetary constraints; consequently, future financial obligations may not be met, which exacerbates debt problems, as the individual may continue to consume compulsively without the financial means to do so (Carvalho & Alves, 2010). Kunkel et al. (2015) confirmed that compulsive buying behavior leads individuals to incur a substantial amount of debt. Based on this, we propose the following hypothesis: **H3: Compulsive buying positively impacts the propensity for indebtedness among entrepreneurs.**

Materialism has also been associated with compulsive buying, which is considered a psychiatric disorder in which individuals lose control over their buying impulses and continue to purchase excessively despite adverse consequences (Dittmar, 2004). Compulsive buyers, considered more emotional and particularly prone to experiencing negative emotions, tend to adopt materialistic values to the extent that their identity and self-esteem become dependent on the quantity and type of material goods they possess. From this perspective, materialistic individuals who perceive themselves as having low self-esteem and have not found their ideal personal identity are more likely to exhibit compulsive buying behavior as a way to reduce negative feelings and achieve greater personal well-being (Dittmar, 2004).

The study by Potrich and Vieira (2018) concluded that materialism has a positive impact on compulsive buying. Thus, many studies have found a correlation between materialism and compulsive buying (Dittmar, 2004; Gardarsdottir & Dittmar, 2012; Omar et al., 2014). For example, Kunkel et al. (2015) found a positive relationship between compulsive buying and materialism, with the latter explaining 51% of the variance in the former. Similarly, Dittmar (2004), Gardarsdottir and Dittmar (2012), and Omar et al. (2014) found that materialism is positively correlated with compulsive buying, suggesting that the higher the level of materialism, the more likely an individual is to be a compulsive buyer. The association between materialism and compulsive buying is also supported by studies showing that individuals with strong materialistic values exhibit a higher frequency of attitudes favorable to spending and consumerism (Richins, 2004). Based on this, a positive relationship between materialism and compulsive buying is expected. **H4: Materialism positively impacts compulsive buying behavior.**

Financial literacy has been recognized as vital for individuals to develop appropriate financial practices, which can be influenced by other behaviors such as compulsive buying and materialism. In this regard, experts recommend adopting financial management practices as a precautionary measure to avoid excessive spending (Potrich & Vieira, 2018), so that individuals with adequate financial attitudes and behaviors are unlikely to develop materialistic tendencies. Pham et al. (2012) suggest that, in addition to reducing materialistic values, financial literacy can also have a considerable impact on preventing compulsive buying behavior.

The study by Potrich and Vieira (2018) concluded that financial literacy negatively impacts materialism and compulsive buying behavior. Specifically, financial literacy and training in basic financial practices, such as money management, budgeting, and saving, could be incorporated into practical teaching units in secondary schools to help prevent compulsive buying behaviors (Pham et al., 2012). Studies have supported the inclusion of financial education in school programs, and it is also expected that these programs may have an impact on compulsive buying (Russell et al., 2006):

H5: Financial behavior negatively impacts entrepreneurs' materialism.

H6: Financial behavior negatively impacts entrepreneurs' compulsive buying.

3 METHODOLOGICAL PROCEDURES

3.1 Population and Sample

The context of the research involves entrepreneurs in Brazil. Specifically, the population comprises 935 entrepreneurs who had an active LinkedIn account. Each individual received an invitation, and those who accepted (230) were sent a cover letter along with a link to access the digital questionnaire, resulting in a sample of 149 respondents. The term "entrepreneur" was used broadly, encompassing individuals who identify as such, regardless of their legal formalization, type of business, or specific activity. The sample was not limited to MEIs, registered companies, or startup partners, but included any individual who considered themselves an entrepreneur, as indicated on their professional social media profiles, such as LinkedIn. Therefore, the definition of entrepreneur was based on the participants' subjective identification, as they self-described as such in their professional profiles.

The sample was one of convenience, with participants recruited primarily through LinkedIn connections. For recruitment, a direct invitation approach was employed via private messages sent to entrepreneurs who identified themselves as such on their professional pages. Additionally, the research was disseminated in groups and forums related to entrepreneurship, which expanded the sample's reach. It is noteworthy that all participants were aware of the nature of the research and voluntarily agreed to participate through informed consent.

The research instrument was divided into three sections: the first addressed Financial Attitude (FA) and Financial Behavior, the second focused on Financial Knowledge, which included questions on Propensity to Indebtedness, Materialism, and Compulsive Buying, all measured on a seven-point Likert scale ranging from "1 – strongly disagree" to "7 – strongly agree," and the last section included questions regarding the respondent's profile. In the first section of the questionnaire, the research instrument by Potrich et al. (2016), adapted from Shockey (2002) and the OECD (2013a), was used as a basis. In the second section, the instrument by Potrich and Vieira (2018) was employed, adapted from the studies of Van Rooij et al. (2011), OECD (2013), Klapper et al. (2013), the National Financial Capability Study (NFCS, 2013), Leite et al. (2011), Richins (2004), and Lea et al. (1995).

3.2 Data Analysis Technique

The validate the scale in the first two blocks, Exploratory Factor Analysis (EFA) was applied, using principal components as the extraction method. This approach allows for the identification of common factors that represent groupings of indicators, facilitating the understanding of their relationships and interconnections (Fávero et al., 2009).

The assumptions of EFA were met as suggested by Hair, Black, Babin, Anderson, & Tatham (2009). Regarding the total variance explained for each factor, indices above 60% were accepted, which were met in this study. For factor loadings, the minimum recommended value is 0.60. resulting in the exclusion of items 1. 3. 4. 5. 7. and 9 from the Financial Behavior (FB) construct. In the second block, concerning Financial Knowledge, items 1. 3. and 6 of the Debt

Propensity (DP) questionnaire were excluded. Furthermore, in the Compulsive Buying (CB) questionnaire, items 1. 5. and 6 were removed due to factor loadings below 0.60.

Regarding communalities, the inter-item relationship values were above 0.50. meeting the minimum recommended parameter. Concerning the Kaiser-Meyer-Olkin (KMO) criterion, the results were: FB = 0.790; DP = 0.545; CB = 0.645; and Materialism (M) = 0.845. These values indicate the adequacy of the data for conducting EFA, considering that acceptable values range from 0.50 to 1.00. with values closer to 1 indicating better suitability. Bartlett's test of sphericity showed a significance level below 0.05 for all five constructs, indicating the absence of strong correlations among items, as suggested by Hair et al. (2009). Finally, internal consistency was evaluated using Cronbach's alpha (α), with a minimum recommended value of 0.70. The results were: FB = 0.876 and M = 0.891. indicating high internal consistency; PTI = 0.602. revealing moderate consistency; and CB = 0.442. indicating low internal consistency.

Thus, EFA was conducted for the items related to AT, FB, PTI, M, and CB. Table 1 presents information on the constructs, indicators, and their factor loadings.

Table 1
Construct Validation of the Study

Construct	N	Indicator	C. F.
Financial Behavior	2	I save part of the money I receive each month for a future need.	0.876
	6	I save money every month.	0.820
	8	I save regularly to achieve long-term financial goals.	0.809
	10	I have a financial reserve of at least three times my monthly income, which can be used in unexpected situations	0.686
	11	I save part of the money I receive each month for a future need.	0.734
Propensity to indebtedness	2	It is a good idea to have something now and pay for it later**.	0.750
	4	Borrowing money is sometimes a good thing**	0.646
	5	It is ok to borrow money to pay for children's clothes**.	0.622
Materialism	1	I like to own things that impress people**.	0.829
	2	I admire people who have expensive houses, cars, and clothes.	0.879
	3	Buying things gives me great pleasure.	0.693
	4	I like to have a lot of luxury in my life.	0.683
	5	My life would be better if I owned certain things I do not have.	0.750
	6	I would be happier if I could buy more things.	0.835
	7	Sometimes it bothers me a little not to be able to buy all the things I would like	0.766
Compulsive Buying	2	I buy things even when I cannot afford them.	0.633
	3	I write checks knowing I do not have sufficient funds in my bank account to cover them.	0.651
	4	I feel anxious or nervous when I go a day without buying something	0.828

Note. Legend: C.F.: Confirmatory Factor
Source: Research data.

For each dimension, a single factor was identified, as expected, and the assumptions indicated by Hair et al. (2009) were met. Through the application of EFA, the constructs and indicators were validated, and reliability was demonstrated, thus ensuring the credibility of the data.

The data analysis technique employed was Spearman's correlation, which is appropriate for non-parametric data. Statistical analyses were performed using IBM SPSS Statistics, version 25. To verify the assumptions, the Shapiro-Wilk test was applied to assess the normality of the data distribution. The results indicated significance values below 0.05, demonstrating a lack of normality; in other words, none of the indicators exhibited a normal distribution. Statistical inference was conducted considering significance levels of 1% and 5%. The following section presents the analysis and discussion of the results obtained.

4 DESCRIPTION AND DATA ANALYSIS

4.1 Sample Profile

The sample consists of 149 respondents, of which 58% are male and 42% are female. Regarding the predominant age group in the study, 70 respondents (47%) are between 31 and 40 years old, followed by 36 respondents (24%) aged 21 to 30, and 34 respondents (23%) aged 41 to 50. Concerning the respondents' educational background, 100% have completed high school, 81% have completed higher education, 4% have incomplete higher education, and 15% do not hold a higher education degree. These results are quite significant, confirming market trends reported by SEBRAE (2021). Furthermore, the majority of Brazilian entrepreneurs are male (54.4%) and fall within the 25 to 44 age range.

As highlighted by SEBRAE (2021) in its Global Entrepreneurship Monitor (GEM) report, entrepreneurs with higher levels of education tend to be more opportunity-driven and to engage in planning, resulting in a higher success rate. Advances in educational attainment play a key role in improving entrepreneurship in Brazil.

4.2 Discussion of the Results

The results of the Spearman Correlation Matrix for Financial Behavior (FB) and Financial Knowledge (PTI; CB and M) are presented, as shown in Table 2, which estimates the relationship between FB and Financial Knowledge, as well as intervening variables (Age, Education, and Gender).

Table 2
Correlation between Financial Behavior and Financial Knowledge

Variable	FB	PTI	CB	M	Age	Education	Gender
FB	1						
PTI	-.083	1					
CB	-.339**	.318**	1				
M	-.114	.428**	.521**	1			
Age	.027	.175*	-.170*	-.113	1		
Education	.003	.056	.184*	.257**	-.097	1	
Gender	.006	.332**	.029	.277**	.265**	.040	1

Note. Legend: FB: Financial Behavior; PTI: Propensity to Indebtedness; M: Materialism; CB: Compulsive Buying.
Legend: * Sig < 0.01; ** Sig < 0.05.
Source: Research data.

Analyzing Table 2, a significant negative correlation (-0.339**) was found between Financial Behavior (FB) and Compulsive Buying (CB), suggesting that as financial behavior improves, the tendency toward compulsive buying decreases. Furthermore, a significant positive correlation (0.318**) was observed between Compulsive Buying (CB) and Propensity to Indebtedness (PTI), indicating that the more consumerist the entrepreneur is, the higher their propensity to incur debt. No significant correlation was found between Financial Behavior (FB) and Materialism (M), suggesting that these two factors may be independent of each other.

4.3 Hypotheses Testing

The structural model examines the dependency relationships among the constructs to test the hypotheses. Table 3 presents the results of simple linear regression models, in which Financial Behavior (FB) is considered a predictor of Financial Knowledge: Materialism (M), Compulsive Buying (CB), and Propensity to Indebtedness (PTI). The evaluation metrics include the coefficient of determination (R^2), which indicates the proportion of variability in the dependent variable explained by the model (Fávero et al., 2009), and the standard error, which represents the dispersion of the points around the regression line.

Table 3

Regression Model Statistics

Model	R	R^2	Adjusted R^2	Standard Error	Durbin-Watson
(-) FB → PTI	0.109	0.12	0.005	0.99739665	1.914
(-) FB → M	0.105	0.11	0.004	0.99787468	1.942
(-) FB → CB	0.348	0.121	0.115	0.94071930	1.937
(+) CB → M	0.329	0.108	0.102	0.94751190	1.498
(+) CB → PTI	0.435	0.190	0.184	0.90331122	1.469
(+) M → PTI	0.335	0.112	0.106	0.94527143	2.060

Note. Legend: FB: Financial Behavior; PTI: Propensity to Indebtedness; M: Materialism; CB: Compulsive Buying; (-) Negative Relationship; (+) Positive Relationship.
Source: Research data

Analyzing the adjusted R^2 for the FB → PTI relationship, a very low value (0.005) is observed, indicating that only 0.5% of the variability in debt propensity is explained by financial behavior. The low regression coefficient (R = 0.109) also suggests a weak relationship between these variables. In this sense, financial behavior may not be a strong predictor of entrepreneurs' materialism.

For the FB → M relationship, the adjusted R^2 is also low (0.004), indicating that only 0.4% of the variability in materialism is explained by financial behavior, and the regression coefficient (R = 0.105) suggests a weak relationship between these variables. In this context, financial behavior may also not be a strong predictor of entrepreneurs' materialism.

For the FB → CB relationship, a slightly higher adjusted R^2 (0.115) was observed, indicating that approximately 11.5% of the variability in compulsive buying is explained by financial behavior, and a moderate regression coefficient (R = 0.348), suggesting a moderately significant relationship between these variables. Here, financial behavior appears to have a stronger influence on entrepreneurs' compulsive buying. This can be explained by the relationship between saving habits and impulsive spending. Entrepreneurs with more disciplined financial behavior may be less prone to compulsive purchases (De Marco & Barichello, 2019; Potrich & Vieira, 2018).

The positive relationships between CB → M, CB → PTI, and M → PTI indicate that compulsive buying is positively associated with both materialism and the propensity to incur debt. Furthermore, materialism is also positively associated with the propensity to incur debt, with moderate regression coefficients for each (0.329, 0.435, and 0.335, respectively). This suggests that entrepreneurs who engage in more compulsive buying tend to be more materialistic and more prone to debt. This may indicate a tendency toward uncontrolled consumerism among these entrepreneurs, which could negatively affect their financial stability and their businesses.

Table 4
Analysis of Variance Test - ANOVA

Modelo		Sum of Squares	df	Mean Square	Z	Sig.
FB → PTI	Regression	1.764	1	1.764	1.774	0.185
	Residual	146.236	147	0.995		
	Total	148.000	148			
FB → M	Regression	1.624	1	1.624	1.631	0.204
	Residual	146.376	147	0.996		
	Total	148.00	147			
FB → CB	Regression	17.912	1	17.912	20.241	0.000
	Residual	130.088	147	0.885		
	Total	148.00	148			
CB → M	Regression	16.027	1	16.027	17.851	0.000
	Residual	131.973	147	0.898		
	Total	148.000	148			
CB → PTI	Regression	28.052	1	28.052	34.379	0.000
	Residual	119.948	147	0.816		
	Total	148.00	148			
M → PTI	Regression	16.650	1	16.650	18.634	0.000
	Residual	131.350	147	0.894		
	Total	148.00	148			

Note. FB: Financial Behavior; PTI: Propensity to Indebtedness; M: Materialism; CB: Compulsive Buying.
Source: Research data.

The analysis of variance (ANOVA) is used to compare the variation between the means of different groups and to assess the significance of the model (Hair et al., 2019). The results regarding the significance of the models are partially accepted. Concerning Hypothesis 1, there is no significant evidence to reject the null hypothesis. This indicates that there is no support for H1, which posits that financial behavior (CF) negatively influences the indebtedness propensity (PE) of entrepreneurs. As discussed by Potrich and Vieira (2018), these results may be surprising, as it is commonly expected that stronger financial behavior would be associated with lower propensity to incur debt. However, other factors, such as the economic situation of entrepreneurs and the availability of credit, may also influence indebtedness propensity (De Marco & Barichello, 2019; Potrich & Vieira, 2018).

Regarding H5, which examines the negative influence of FB on M, there is evidence indicating that the null hypothesis cannot be rejected. This shows that there is no support for H5, suggesting that financial literacy negatively affects the materialism of entrepreneurs. These findings may indicate that financial literacy is not directly linked to entrepreneurs' material values but may instead influence other aspects of their financial decision-making. Such results are in contrast with previous studies, such as Potrich and Vieira (2018) and Pham et al. (2012).

The relationship between financial literacy (FL) and compulsive buying (CB) is significant, meaning that the null hypothesis is not rejected. This provides support for Hypothesis H6, which posits that financial literacy is negatively associated with entrepreneurs' compulsive buying. This suggests that entrepreneurs with higher financial literacy tend to exhibit a lower propensity for impulsive and compulsive purchases (Potrich & Vieira, 2018). Entrepreneurs who demonstrate more disciplined financial behavior are likely to have a reduced tendency toward compulsive buying (De Marco & Barichello, 2019; Potrich & Vieira, 2018).

he relationship between compulsive buying (CB) and materialism (M) is significant. This provides support for Hypothesis H4, which posits that compulsive buying is related to entrepreneurs' materialism. These results suggest that individuals with a propensity for compulsive purchases also tend to hold a materialistic view of life. Such findings are consistent with previous studies, including Dittmar (2004), Gardarsdottir and Dittmar (2012), Omar et al. (2014), Potrich and Vieira (2018), and Kunkel et al. (2015), which also concluded that materialism positively impacts compulsive buying.

The relationship between compulsive buying (CB) and propensity to indebtedness (PE) is also significant. This provides support for Hypothesis H3, which posits that compulsive buying is associated with a higher propensity for indebtedness among entrepreneurs. These results align with previous studies, such as Achtziger et al. (2015) and Potrich and Vieira (2018), which show that individuals with compulsive consumption tendencies are more likely to incur debt.

The relationship between materialism (M) and propensity to indebtedness (PTI) is also significant. This provides support for Hypothesis H2, which posits that materialism is related to entrepreneurs' propensity to incur debt. These results are in line with previous research that found a direct relationship between materialism and indebtedness (Cakarnis & D'Alessandro, 2015; Gardarsdottir & Dittmar, 2012). According to authors such as Cakarnis and D'Alessandro (2015), more materialistic individuals tend to have a more positive attitude toward acquiring debt than non-materialistic individuals, that is, they are more prone to indebtedness.

Table 5
Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Standard Error	Beta		
FB → PTI	(Constant)	1.44	0.082		0.000	1.000
	J_Total	-0.109	0.082	0.109	-0.132	0.185
FB → M	(Constant)	1.41	0.082		0.000	1.000
	J_Total	-0.105	0.082	0.105	-1.277	0.204
FB → CB	(Constant)	1.66	0.077		0.000	1.000
	J_Total	-0.348	0.077	-0.348	-4.499	0.00
CB→ M	(Constant)	-7.13	0.078		0.000	1.000
	J_Total	0.329	0.078	0.329	4.225	0.00
CB→ PTI	(Constant)	-5.89	0.074		0.000	1.000
	J_Total	0.435	0.074	0.435	5.863	0.00
M→ PTI	(Constant)	2.31	0.077		0.000	1.000
	J_Total	0.335	0.077	0.335	4.317	0.00

Note. FB: Financial Behavior; PTI: Propensity to Indebtedness; M: Materialism; CB: Compulsive Buying.
Source: Research data.

Based on the results in Table 4, it can be observed that for the relationship FB → PTI, the unstandardized coefficient (B) is -0.109 and the standardized coefficient (Beta) is -0.109. Both values are negative, indicating a negative relationship between financial behavior and the propensity to incur debt. The t-value (significance test) is -0.132, with a p-value of 0.185, suggesting that the relationship is not statistically significant at a 5% significance level. Thus, the results indicate a possible association between the variables, but not a statistically significant relationship.

n the relationship between FB → M, the unstandardized coefficient (B) is -0.105 and the standardized coefficient (Beta) is 0.105. Both values are negative, indicating a negative relationship between financial behavior and materialism. The t-value is -1.277, with a p-value of 0.204, indicating that the relationship is not statistically significant at a 5% significance level. Thus, the results also suggest a possible association between the variables, but not a statistically significant relationship between the.

In the relationship FB → CB, the unstandardized coefficient (B) is -0.348 and the standardized coefficient (Beta) is -0.348. Both values are negative, indicating a negative relationship between financial behavior and compulsive buying. The t-value is -4.499, with a p-value of 0.00, indicating that the relationship is statistically significant at a 1% significance level.

Thus, the results suggest a clear association between the variables and a statistically significant relationship between them.

The positive relationships between CB → M, CB → PTI, and M → PTI show that the coefficients are positive, indicating positive relationships between the variables CB and M, CB and PTI and M and PTI. All t-values are statistically significant at the 1% significance level. Thus, the results suggest a clear association between the variables and a statistically significant relationship among them.

5 FINAL CONSIDERATIONS

Based on the presented results, this study concludes that the financial behavior of entrepreneurs in Brazil does not have a direct impact on either their propensity to incur debt or their materialism. However, it is evident that compulsive buying plays a significant role, affecting both the propensity to incur debt and the materialism of entrepreneurs.

These findings highlight the importance of addressing compulsive buying behavior when developing financial literacy programs for entrepreneurs. When providing guidance and financial education, it is crucial to consider not only the technical and knowledge-based aspects of financial management but also the behavioral and emotional factors related to compulsive purchasing.

Furthermore, the results emphasize the complexity of influences on entrepreneurs' financial behavior. Other factors, such as personal economic conditions, credit availability, and social influences, may play a significant role in debt propensity and the development of a materialistic mindset.

The conclusion indicates the need for a holistic approach to addressing entrepreneurs' financial behavior, taking into account not only technical aspects but also behavioral and psychological dimensions. These findings may also provide valuable insights for the design of public policies and financial education programs aimed at improving the financial well-being and decision-making of entrepreneurs in Brazil.

The analysis of the results reveals significant practical and managerial implications for entrepreneurs' financial behavior. First, the negative correlation between financial behavior (FB) and compulsive buying (CB) suggests that as financial behavior improves, the tendency toward compulsive buying decreases. This finding implies that entrepreneurs with more disciplined financial behavior may reduce impulsive consumption, promoting healthier financial management. Therefore, implementing financial education programs focused on sound management practices and financial control may be essential to mitigating impulsive purchases among entrepreneurs, contributing to the financial stability of their businesses.

Furthermore, the positive relationship between compulsive buying (CB) and propensity to indebtedness (PTI) indicates that entrepreneurs exhibiting compulsive buying behaviors tend to be more prone to incurring debt. From a managerial perspective, organizations that support entrepreneurs can use this information to develop risk mitigation strategies, such as promoting financial awareness and supporting responsible financial decision-making. Policies that encourage the conscious use of credit and education on the importance of financial planning can help prevent entrepreneurs from becoming excessively indebted.

Policy makers can draw several conclusions from the obtained results. First, given the significant relationship between compulsive buying and indebtedness, public policies aimed at incorporating financial education programs into school curricula and entrepreneurship courses could better prepare future entrepreneurs to handle financial pressures. Moreover, since debt propensity was observed among entrepreneurs with compulsive buying behaviors, policy makers might consider stricter regulation of credit offers, fostering a safer and more responsible financial environment for entrepreneurs.

The analysis also suggests that financial literacy is not directly related to materialism, implying that increased financial knowledge alone may not be sufficient to change materialistic attitudes. This indicates that, in addition to financial education strategies, policies promoting cultural shifts in consumption and materialism may also be necessary for a broader impact on entrepreneurs' attitudes.

It is important to acknowledge, as a limitation of the study, the use of a specific sample and a particular structural model. Therefore, further research is needed to confirm and expand these findings, as well as to explore other variables and contexts that may influence the relationship between financial literacy and financial behavior among students.

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CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest regarding this submitted work.

AUTHOR CONTRIBUTIONS

Roles	1ª author	2º author
Conceptualization	♦	
Data curation	♦	
Formal analysis	♦	♦
Funding acquisition		
Investigation	♦	
Methodology	♦	♦
Project administration	♦	
Resources		
Software	♦	
Supervision		♦
Validation		♦
Visualization	♦	
Writing – original draft	♦	♦
Writing – review and editing	♦	♦