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# The Effects of Loss Aversion on Online Betting: A Study in Cuiabá, Brazil

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#### **Abstract**

The main purpose of this research is to analyze the profile of gamblers in the municipality of Cuiabá, Mato Grosso, and their tendencies toward loss aversion. Data collection was conducted using structured questionnaires, resulting in 135 responses. The findings indicate that most participants place bets frequently, often driven by the expectation of quick gains, in contrast to traditional investment methods. Additionally, biases such as loss aversion were identified, revealing that individuals exhibit greater sensitivity to losses, which may suggest impulsive financial behavior.

**Keywords**: Online Betting; Prospect Theory; Loss Aversion.





#### Introduction

Financial difficulty affects a significant portion of the Brazilian population, where approximately 78.1% of families have overdue or due debts, while 28.3% of families have overdue accounts and debts, according to the National Confederation of Commerce of Goods, Services, and Tourism (CNC, 2024). The search for better financial conditions has opened space for online betting, which has been attracting more and more adherents with expectations of quick wealth—even in the face of risks—and even as a form of investment, with high returns compared to alternatives (Santos et al., 2025).

This behavior has led to significant reductions in retail consumption. According to the Brazilian Society of Retail and Consumption (SBVC), in 2024, 63% of Brazilians who bet online compromised part of their income, resulting in a consequent reduction of 23% in clothing purchases, 19% in supermarket shopping, 14% in hygiene and beauty products, and 11% in spending on healthcare and medication (SBVC, 2024). Thus, it is possible to observe a trend of growing spending on betting that has affected basic needs such as health and food.

Regarding the regional context, it is possible to observe that in the state of Mato Grosso, 17% of the state's population aged 16 or older has already spent money on sports betting (DataSenado Institute, 2024). This rate shows that the impact of betting is not restricted to large urban centers and is particularly common among younger people—a group with less financial stability and greater access to digital content and a propensity for compulsive behavior.

Given this, an impact of online betting on the personal finances of Brazians, including young people, is observed, affecting personal budgets and gradually becoming a public health problem with betting addiction. Given the growth of online betting as a common practice, this study addresses the perception of bettors in the municipality of Cuiabá-MT, especially regarding their loss aversion. Furthermore, it seeks to identify the profile and habits of bettors in the municipality, as well as determine the reasons that make people choose to bet instead of investing and determine if online betting is considered an alternative to investments and savings.

This study analyzes financial behavior in online betting through the lens of Prospect Theory (1979), investigating how cognitive biases influence irrational



decisions. Given the growth of betting platforms in Brazil—a phenomenon still understudied—the research seeks to understand these patterns to support financial education strategies that improve personal resource management. Furthermore, it explores the socioeconomic consequences of the search for "quick gains" versus considered investments.

To fulfill this purpose, the work is divided into five sections, starting with the introduction. The second section presents prospect theory, which theoretically supports the research, as well as a brief context of online betting. The third section presents the methodological procedures used to obtain the results which are expressed in the fourth section. Finally, the fifth section presents the research's final considerations.

#### **Prospect Theory**

Prospect Theory, developed by researchers Daniel Kahneman and Amos Tversky in 1979, falls within the field of behavioral finance, which seeks to determine how cognitive biases influence economic decision-making. Behavioral finance analyzes both individual behavior in financial decisions and the collective effects resulting from these choices (Iglesias & Padovesi, 2024). In general, Prospect Theory aims to explain the cognitive biases (or heuristics) involved in the decision-making process.

It explores how sensory impulses are transformed, simplified, elaborated, stored, retrieved, and applied in decisions under risk conditions (Kahneman & Tversky, 1979). In this theory, the choice process occurs in two phases: editing and evaluation. The editing phase consists of a preliminary analysis of prospects, simplifying their representation to facilitate choice. Later, Kahneman and Tversky (1981) expanded this phase into the concept of framing, which can create barriers for normative decision theories. In the evaluation phase, the edited prospects are evaluated, and the one with the highest value is chosen (Kimura et al., 2006).

Kahneman and Tversky (1979) propose a new model for the risk-utility curve, as individuals evaluate the risk of an investment based not on total wealth, but on gains and losses. Daniel and Amos's model indicates that when gains and losses are plotted, it is possible to observe an "S"-shaped curve (see Figure 1), concave in the domain of gains and convex in the domain of losses, considerably steeper in the domain of losses



and less so in the domain of gains, demonstrating that individuals feel losses more intensely than gains (Tashiro & Capelato, 2017).

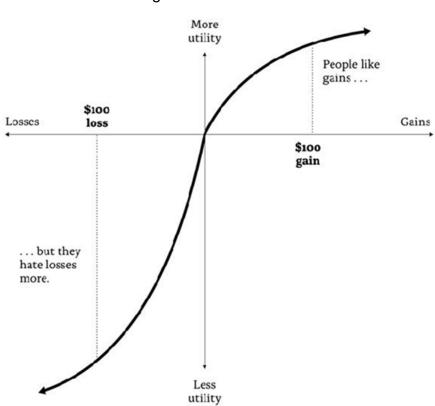


Figure 1. Value Function

Fonte: Thaler, 2019.

In Figure 1, the upper right quadrant, for gains, has the same shape as the usual wealth utility function, capturing the idea of decreasing sensitivity. However, note that the function in the domain of losses also captures this sensitivity. The difference between losing \$10.00 and losing \$20.00 causes a much greater feeling than the difference between losing \$1,300.00 and \$1,310.00. This point differs from the standard model because, from a certain state of wealth shown in Figure 1, losses are captured by moving down the wealth utility line, showing that each loss becomes increasingly painful (Thaler, 2019).

Furthermore, according to Kahneman and Tversky (1979), individuals tend to evaluate choices differently in contexts of gain and loss, revealing important biases in the decision-making process. In a gain situation, for example, two alternatives are offered: i) a 50% chance of winning R\$ 1,000.00 and a 50% chance of winning R\$ 0.00; and ii) a 100% chance of winning R\$ 500.00.



In this situation, people tend to choose the second option, which guarantees a certain gain of R\$ 500.00, even though the expected value of the first alternative is equivalent. This behavior reflects risk aversion in gain contexts, as people prefer the certainty of a smaller amount over the risk of a potentially higher but uncertain value. Thus, there is a preference for security and certainty over risk, which can have important implications for investments and other financial decisions (Kahneman & Tversky, 1979).

However, in a loss situation, the behavior changes. Two situations are offered: i) a 50% chance of losing R\$ 1,000.00 and a 50% chance of losing nothing; and ii) a 100% chance of losing R\$ 500.00. In this case, most people choose the first option, preferring to face the risk of a greater loss to avoid a certain loss of R\$ 500.00. This behavior demonstrates a risk-seeking tendency when it comes to avoiding losses, a phenomenon that Kahneman and Tversky (1979) described as loss aversion. By preferring a risky option that offers a chance of losing nothing, individuals show a resistance to accepting guaranteed losses, even if it implies a possible greater loss.

In this line, Shefrin and Statman (1985) found that, based on the loss aversion effect, investors tend to sell stocks that have appreciated to secure profits relative to the purchase price, while holding onto stocks that are declining, hoping to recover the invested value instead of accepting a partial investment loss. Carvalho (2024) recently found that, in sports betting, the perception of impact is more intense in loss situations, where most users prefer risky choices motivated by the idea that it is possible to recover money already lost and thus "erase" the previous loss. However, this behavior increases risk, because as losses accumulate, the probability of recovery decreases.

#### **Online Betting Context**

Games of chance and casinos were legalized in 1933 by Getúlio Vargas, with the premise that games were artistic spectacles, but the era of gambling lasted only 13 years, when then-President Eurico Gaspar Dutra, on April 30, 1946, signed Decree-Law 9.215, which prohibited the practice or exploitation of games of chance throughout the national territory. In 1969, the Federal Sports Lottery was created by Decree-Law No. 594, under the power of then-President Artur Costa e Silva, with the Brazilian State being the only entity permitted to exploit this activity.



In 2018, then-President of Brazil, Michel Temer, enacted Law No. 13,756/18, creating the lottery modality called fixed-odds betting, known as sports betting. Fixed-odds betting, which "consists of a system of bets related to real sporting events, in which the amount the bettor can win in case of a correct prediction is defined at the time the bet is placed." That is, one can bet not only on the score but also on other match data, such as the scorer of the first goal, the number of yellow cards, and various other match details in the case of field soccer. The same can be done for various other sports modalities available on the platforms (Póvoa et al., 2023).

Following the authorization of sports betting, there was an explosion of betting houses in Brazil, from 26 in 2021 to 217 in 2024, according to a survey by the data analysis platform Datahub, considering only registered companies, excluding those with irregular operations. The impact of this was an increase in betting and spending on these games, leading the government in 2023 to sanction Law No. 14,790, which regulates this sector, establishing rules, including licensing, taxation, and oversight of bets.

The following year, in 2024, a series of ordinances were issued to detail regulations, one of the most important being Ordinance No. 1,231/2024. Among some measures is the monitoring of behavior to prevent harm related to pathological gambling. Additionally, to prevent bettors from becoming indebted, companies were prohibited from accepting credit card payments, with payments restricted to debit cards.

Online betting includes both sports betting and online casinos, with relevant differences between these modalities. While sports betting, also called fixed-odds betting, have prizes defined at the time of the bet and consist of predicting the outcome of real sporting events—such as soccer, basketball, tennis matches, among others—online casinos offer a range of games, popularly known as games of chance.

According to the National Research Council (US) Committee on the Social and Economic Impact of Pathological Gambling, "the term 'gambling' refers to both games of chance that are truly random and involve little or no skill that could increase the chances of winning"—such as roulette, slot machines (like "tigrinho"), bingo—"and activities that require the use of skills that can increase the chance of winning," as is the case with poker.



An important point concerns the legality of these games in Brazil. Sports betting are regulated in the country, according to Ordinance No. 1,231/2024, which establishes rules and guidelines to be followed. On the other hand, online casinos still lack specific regulations. Only physical casinos are mentioned in the legislation and have been prohibited in Brazil since 1946. However, Bill No. 2234/2022 is currently being processed in the Chamber of Deputies, proposing the authorization of only physical casinos in the national territory. Due to the lack of regulation for online casinos, a legal loophole is created for operators to exploit this gap.

Based on Article 50 of the Misdemeanors Penal Law, Decree 3,688/41, "establishing or exploiting games of chance in a public place or one accessible to the public, with or without an entry fee" is considered a misdemeanor, applicable when practiced in national territory. Thus, as most online casinos operating in the country are based in foreign jurisdictions, a territoriality conflict arises, which removes the legitimacy and jurisdiction of the Brazilian State regarding gambling in these environments (Lima & Teixeira, 2021).

With the growth of online betting platforms, a concerning phenomenon is observed: the mistaken association between betting and investments. Many individuals, especially those with low levels of financial literacy, see betting as a legitimate way to increase their income, ignoring the risks involved and the fundamental differences between these practices.

According to Shefrin (2002), cognitive processes, such as overconfidence and the illusion of control, can lead individuals to erroneous investment decisions and excessive trading. This behavior is intensified by the desire for quick gains promised by betting, in contrast to traditional investments, which require long-term planning.

According to a survey by ANBIMA (Brazilian Association of Financial and Capital Market Entities), conducted in 2023, 22% of those who bet—or 2 in 10 people—qualify betting as a form of investment. Another finding from the survey is that 40% of people see betting as a way to earn money quickly in times of need (ANBIMA, 2023).

The qualification of betting as a form of investment is often related to how it is advertised to the public. Various betting platforms use advertising strategies that associate the practice with phrases like "safe investment" or "extra income," which can create confusion among the public and distort their perceptions of the risks involved.



From the perspective of behavioral finance, this improper association can be explained by the "framing" effect, which consists of the way information is presented and can influence decision-making (Kahneman & Tversky, 1981).

## Methodology

The research population consists of residents of Cuiabá. FIEMT (2025) highlights that online betting is becoming an "epidemic" in Mato Grosso, with workers committing a significant part of their income to betting platforms. Cuiabá, as the capital and main urban center of the state, concentrates a large part of this phenomenon, justifying the need for specific research in the region. Despite the severity of the problem, there are still few academic studies focused on Mato Grosso on the topic.

For data collection, a structured questionnaire was applied, composed of closed-ended questions with predefined alternatives, prepared using the *Google Forms* platform. The instruments totaled 24 questions, organized into six thematic blocks. The first block, with six questions, aimed to characterize the sociodemographic profile of the participants. The second block, composed of five questions, addressed the betting habits of the respondents. The third block, with two questions, sought to identify the main reasons that lead individuals to engage in online betting.

The fourth block, also with six questions, investigated participants' perceptions regarding gains and losses from betting. The fifth block, with five questions, focused on the financial impacts related to betting practices. Finally, the sixth block, consisting of six questions, examined participants' opinions on advertisements and existing regulations in the online betting sector.



Table 1. Questions and sources used for preparation

Question	Source
Block 1 – Participant Profile	
1. What is your age range?	Developed by the authors
What is your gender?	
3. What is your approximate monthly income?	
4. What is your level of education?	
5. How do you rate your knowledge of personal finances?	Carvalho (2024)
6. In your opinion, are online bets a form of investment?	ANBIMA, X-Ray of the Brazilian Investor (2024)
Block 2 – Betting Habits	
7. Since when have you been placing online bets?	
8. How often do you place online bets?	Adapted from d'Astous & Di Gaspero (2015)
9. What types of bets do you most frequently place? (You may select more than one option)	
10. What is the average monthly amount you allocate to betting?	
11. Have you ever used borrowed money (credit, loans, friends) to bet?	Developed by the authors
Block 3 – Motivations for Betting	
12. What motivates you to place online bets?	
(Select all that apply)	Adapted from d'Astous & Di Gaspero (2015).
13. Do you follow any strategy to minimize your	, tauptou mom un totodo di Bri Guoporo (2010).
losses?  Block 4 – Perception of Gains and Losses	
14. Suppose you have R\$300.00 today.	
	Tversky and Kahneman (1979)
15. Suppose you have R\$500.00 today.	
16. If you had to choose between investing R\$500.00 in a financial application (e.g., savings, CDB, stocks) or betting on a game, which option would you choose?	Developed by the author
17. When you win a bet, what is your most	
common reaction?	Carvalho (2024)
18. What is your most common reaction when losing a bet?	Carvanio (2027)
19. Do you feel that losses have a greater emotional impact than gains?	Tversky and Kahneman (1979)
Block 5 – Education and Financial Impact	
20. The impact of betting on your financial life	0    (0004)
and personal budget was:	Carvalho (2024)
21. Have you ever failed to pay or purchase an essential bill (rent, water, electricity, internet, food, health, etc.) to bet?	Developed by the authors
22. Do you have knowledge about types of financial investments? Do you have other financial investments? (e.g., savings, fixed income, stocks)?	Pires (2006)
Block 6 – Opinions and Regulation of	
Betting	



23. Do you believe there should be more restrictions or regulations for online betting?	Developed by the authors
24. Do you believe that betting advertisements encourage irresponsible behavior?	Tversky and Kahneman (1979)

Source: survey data, 2025.

The questionnaire was administered using two strategies. The first consisted of online dissemination, sharing the link on social media (Instagram and WhatsApp) and via email. The second form of application occurred in person, with the random selection of eight supermarkets located in the four regions of Cuiabá (north, south, east, and west), with two establishments per region. The sample consisted of bettors residing in the municipality of Cuiabá. At the end of the collection period, 135 responses were obtained, of which 120 were collected in person—15 in each supermarket—ensuring a balanced distribution among establishments and regions. The other 15 responses were obtained through the online form. Data collection began on February 18, 2025, and ended on March 28, 2025.

After data collection, data selection and tabulation were conducted. In the selection stage, data were checked to detect errors or flaws before proceeding to tabulation, arranging the data in tables, according to Lakatos (2001). Data analysis was conducted using Excel software, applying cross-tabulation techniques to find patterns in bettors' profiles and behaviors.

Thus, the methodological procedures adopted in this study were planned to ensure data reliability and alignment with the proposed objectives. The quantitative approach, combined with a structured questionnaire, allowed for the collection of information to understand individuals' behavior regarding online betting.

#### Results

#### Sociodemographic Profile

From the data collection, it was possible to observe that the majority of the 135 interviewees are male (77.8%), followed by female (22.2%). Regarding age, it is observed that most are young: the age group with the highest percentage is 18 to 24 years (35.6%), followed by 25 to 34 years (32.6%), 35 to 44 years (19.3%), and finally,



45 years or older (9.6%). Although betting is prohibited for those under 18, 3% of the survey participants stated they bet.

Regarding the respondents' education level, most have completed high school (43.0%), followed by completed higher education or more (24.4%), incomplete higher education (17.0%), incomplete high school (11.1%), incomplete elementary school (3.7%), and complete elementary school (0.7%).

Respondents were also asked about their monthly income (Table 1). The most representative group is those with an income of 1 to 2 minimum wages (R\$ 1,518.00 to R\$ 3,036.00) at 31.1%, followed by those with an income between 2 to 3 minimum wages (R\$ 3,036.00 to R\$ 4,554.00) at 18.5%, more than 5 minimum wages (15.6%), between 3 to 4 minimum wages (R\$ 4,554.00 to R\$ 6,072.00) at 14.8%, less than 1 minimum wage (14.1%), and between 4 to 5 minimum wages (R\$ 6,072.00 to R\$ 7,590.00) at 5.9%.

**Table 2**. Income by Education Level

	Education Level (Complete/Incomplete)				
Income (1 MW =	Elementary	High School	Higher Education or	Total	
R\$1,518.00)	School		More		
Less than 1 MW	0,0%	10,4%	3,7%	14,1%	
1 to 2 MW	2,2%	18,5%	10,4%	31,1%	
2 to 3 MW	0,7%	10,4%	7,4%	18,5%	
3 to 4 MW	0,7%	7,4%	6,7%	14,8%	
4 to 5 MW	0,7%	1,5%	3,7%	5,9%	
More than 5 MW	0,0%	5,9%	9,6%	15,6%	
Total	4,4%	54,1%	41,5%	100%	

Source: survey data, 2025.

It is noteworthy that 45.2% of the interviewees have an income of up to 2 minimum wages, and 58.5% of the participants have an education level of up to high school. Regarding the frequency of betting, most stated they bet more than three times a week (33.3%), followed by those who bet once a month or less (25.9%), one to two times a week (20.0%), two to three times a month (20.0%), and only 0.7% stated they never bet.

Regarding the duration of the practice (Table 3), most responded that they have been betting for more than three years (33.3%), followed by between 1 and 3 years (27.4%), between 6 months and 1 year (21.6%), and less than 6 months (17.8%). If we



consider people who have been betting for up to a year (39.3%), it reinforces the trend that there has been recent growth in this activity.

**Table 3**. Length of Time Betting

Time	% of Respondents			
Less than 6 months	17,8%			
Between 6 months and 1 year	21,5%			
Between 1 and 3 years	27,4%			
More than 3 years	33,3%			
Total	100,0%			

Source: Survey data, 2025.

Additionally, respondents were asked which types of bets they most frequently place (Table 3). Most declared sports betting (47.7%), such as soccer, basketball, horse racing, and E-sports. Next were online casinos (33.9%), lottery games (17.8%), and binary options (0.6%). When comparing genders, it is observed that among women, the preference is for online casinos (55.3%), followed by lottery games (28.9%) and sports betting (15.8%). Among men, the majority opt for sports betting (56.6%), followed by online casinos (27.9%), lottery games (14.7%), and binary options (0.7%).

The difference in preferences by gender may be related to the increase in the number of betting houses sponsoring soccer teams. According to a survey by Globo Esporte (2024), 68% of clubs in the A, B, and C series of the Brazilian Championship have betting sites as their main sponsors.

**Table 3.** Types of Bets Most Frequently Placed

What types of bets do you most frequently place?	%
Sports Betting (soccer, basketball, horse racing, E-sports, etc.)	47,7%
Online Casino (roulette, poker, slot machines, tigrinho)	33,9%
Lottery Games	17,8%
Binary Options	0,6%

Source: Survey data, 2025.

It is observed that most bettors are male, aged 18 to 24, with completed high school, and receiving 1 to 2 minimum wages—a profile outlined by the DataSenado Institute (2024), which reflects the identity of bettors in Cuiabá and Brazil. Young people are more prone to taking greater risks due to their overconfidence, and these findings corroborate what was pointed out by Barber and Odean (2021), where factors such as gender, marital status, and age influence behavior in games of risk.



### **Motivations for Betting in Opposition to Investments**

Regarding the motivations for engaging in online betting, as indicated by the data in Table 4, the main reason cited was entertainment (45.2%), followed by the attempt to improve financial situation (37.0%). Other motivations mentioned include curiosity (8.9%), influence from friends/family (3.0%), advertising (3.0%), and to a lesser extent (0.7% each): to focus more on finances, conducting my own analysis, as a sports trader, and addiction.

**Table 4.** Reasons for Placing Online Bets

Main reason for placing online bets	% of Respondents		
Curiosity	8,9%		
Entertainment	45,2%		
I enjoy conducting my own analysis	0.7%		
Influence from friends/family	3,0%		
To focus more on my finances	0,7%		
Advertising/publicity	3,0%		
Attempt to improve financial situation	37,0%		
Sports Trader	0.7%		
Addiction	0,7%		
Total	98,5%		

Source: Survey data, 2025.

Additionally, participants were asked what leads them to choose betting over investments. In this perspective, the possibility of quick gains (51.9%) was the main reason, followed by entertainment (37.8%), lack of knowledge about investments (4.4%), lack of patience for long-term investments (3.0%), ease of access and little bureaucracy (2.2%), and all of the above alternatives (0.7%).

When relating motivation and income range (Table 5), it is noted that financial motivation prevails among participants with lower incomes, especially among those earning less than 1 minimum wage (42.1%) and 1 to 2 minimum wages (50.0%), indicating that these groups see betting as a possible solution to improve their finances.



Table 5. Reasons by Income

	Income (1 MW = R\$ 1.518,00)					
Main reason for placing online	Less than 1	1 to 2	2 to 3	3 to 4	4 to 5	More than
bets	MW	MW	MW	MW	MW	5 MW
					12,5	
Curiosity	15,8%	9,5%	4,0%	5,0%	%	9,5%
		33,3	40,0	65,0	75,0	
Entertainment	36,8%	%	%	%	%	52,4%
I enjoy conducting my own analysis	0,0%	2,4%	0,0%	0,0%	0,0%	0,0%
Influence from friends/family	5,3%	2,4%	8,0%	0,0%	0,0%	0,0%
To focus more on my finances	0,0%	0,0%	0,0%	0,0%	0,0%	4,8%
			12,0			
Advertising/publicity	0,0%	0,0%	%	0,0%	0,0%	4,8%
		50,0	36,0	30,0	12,5	
Attempt to improve financial situation	42,1%	%	%	%	%	23,8%
Sports Trader	0,0%	0,0%	0,0%	0,0%	0,0%	4,8%
Addiction	0,0%	2,4%	0,0%	0,0%	0,0%	0,0%
		100,0	100,0	100,0	100,0	
Total	100,0%	%	%	%	%	100,0%

Source: Survey data, 2025.

Still in the field of influences, the research inquired participants about their perceptions regarding betting advertisements, questioning whether they believed that advertisements encouraged irresponsible behavior among bettors. The majority (76.3%) agreed with the question, which may indicate a critical perception of advertisements and that they are also one of the factors leading to this activity. Other respondents (17.0%) stated they do not believe advertisements influence behavior, and (6.7%) did not know how to respond.

In this sense, it is possible to observe that entertainment, lack of knowledge, and the possibility of quick gains end up making the careful analysis of investments unattractive. The impulsive search for "easy" rewards is reinforced by mass advertising, permissive regulation, and facilitated access to credit and the internet (Santos et al., 2025). Lamont and Ring (2020) list a series of motivations for betting, considering that reference group influences and socialization can make games a common leisure activity among friends. Excitement combined with escapism from routine and daily problems are also cited by the authors as important motivations.

#### **Financial Impacts of Online Betting**



Initially, participants were asked about their level of knowledge regarding personal finances. A large part considers themselves at an intermediate level, i.e., people who understand investments and how to plan their finances (43.7%); 38.5% consider themselves beginners who know a little about how to save and organize money. Only 14.8% classify themselves as advanced level with experience in investing and managing their money, while 3.0% claimed to be experts—understanding finances very well and applying advanced strategies.

When asked if they considered online betting a form of investment, 64.4% responded negatively, demonstrating a perception more consistent with the risk involved in this activity, corroborating the opinion of experts in the field (Boldrini, 2024). On the other hand, 30.4% stated yes, they treat betting as a form of investment, and 5.2% did not know how to answer the question, reinforcing the existence of financial misinformation among a portion of the respondents.

The research also addressed the average monthly amount allocated to betting. The majority of bettors, approximately 29.6%, responded that they spend less than R\$50.00; 23.7% spend between R\$50.00 and R\$100.00, and those who spend between R\$100.00 and R\$200.00 and between R\$200.00 and R\$400.00 represent 16.3% of respondents, respectively. Finally, a contingent of 14.1% stated they spend more than R\$400.00 monthly on betting.

Regarding the choice between investing or betting, proposing a scenario in which participants had to decide between applying R\$1,000.00 in a traditional financial application—Savings, CDB—or placing online bets, the majority, approximately 76.3%, chose to invest, demonstrating a more conservative profile. However, 18.5% prefer to bet online, and 5.2% did not know how to respond, indicating an association of betting with financial gain opportunities.

When asked about the impact of online betting on their financial life and personal budget, 36.3% responded that it does not impact the budget, and 27.4% had a neutral impact, which did not significantly affect finances. A total of 23.7% stated that betting brought a positive impact, and 7.4% a negative impact, affecting the budget. A portion of 5.2% reported a negative impact but under control.

The research also addressed whether respondents had ever failed to pay or purchase an essential bill—rent, water, electricity, internet, food, health—with 88.1%



stating they had not, while 11.9% had failed to pay or purchase an essential bill. Another question answered by bettors was whether they had ever used borrowed money to place bets. Of these, 82.2% had not used borrowed money, while 17.8% responded that they had used borrowed money for betting.

When asked how they use winnings from betting, 30.4% of respondents reported that they withdraw the money and stop betting for a while. Others, 23.0%, stated that they save the amount won, while 20.0% use the amount for other personal purposes. A group of 14.1% reported that they reinvest the amount in another bet, and 7.4% use it to increase the amount of the next bet. A smaller portion, represented by 0.7%, did not present a specific pattern.

Regarding reactions to losses, 43.7% of bettors stated that they accept the loss and continue betting normally, while 40.7% said they stop betting for a while. A portion of 10.7% reported trying to recover the lost amount immediately in another bet, and 5.2% of respondents stated that they increase the bet amount to compensate for the loss.

# **Risk Aversion Analysis**

To identify behavioral patterns related to Kahneman and Tversky's Prospect Theory (1979), participants were subjected to simulations with choices in loss and gain contexts. In the first scenario, where respondents had an initial amount of R\$300.00 and had to choose between a safe alternative—gain R\$100.00—and a bet with a 50% chance of winning R\$200.00 or 50% of winning nothing. In this scenario, the great majority of respondents, about 75.6%, opted for the safe option, aligning with what was addressed by Kahneman and Tversky regarding risk aversion in the context of gain. As predicted by the theory, the certainty of receiving an amount, even if smaller, is valued compared to the risk of winning nothing. On the other hand, 24.4% of participants were willing to take the risk in search of a higher return.

Subsequently, the same problem was proposed, but in a loss situation, where interviewees had to choose between a certain loss of R\$100.00 or a bet with a 50% chance of losing R\$200.00 or a 50% chance of losing nothing. The choice was almost evenly divided, with about 50.4% opting for a safe loss of only R\$100.00, versus 49.6% who chose the second option. This result indicates a slightly more conservative



behavior than predicted by the theory, which states that in a loss context, individuals tend to take more risks to avoid certain losses. A plausible explanation for this difference may be related to the question asked to bettors about adopting strategies to reduce losses. Of the total, 47.4% stated they have a clear strategy to minimize their losses, while 38.5% said they do not use any strategy, and 14.1% reported using them occasionally.

The perception of the emotional impact of losses compared to gains was also analyzed (Table 6). The majority, 61.5%, of interviewees stated that losses have a greater emotional impact than gains, while 38.5% reported not feeling this difference. This perception in the research is aligned with the value function of Prospect Theory (1979), where the loss curve is steeper compared to the gain curve, indicating that losses tend to be felt more intensely than gains of the same magnitude. When analyzing this data by income range, it is notable that participants with an income between 1 and 2 minimum wages were those who most reported feeling this impact (76.2%), followed by those with an income between 2 to 3 minimum wages (72.0%) and less than 1 minimum wage (68.4%). Compared to those with higher incomes, sensitivity to losses was significantly lower.

**Table 6.** Emotional Impact of Losses Compared to Gains

Income	Do you feel that losses have a greater em impact than gains?		
	Yes	No	Total
Less than 1 MW	68,4%	31,6%	100,0%
1 to 2 MW	76,2%	23,8%	100,0%
2 to 3 MW	72,0%	28,0%	100,0%
3 to 4 MW	35,0%	65,0%	100,0%
4 to 5 MW	50,0%	50,0%	100,0%
More than 5 MW	42,9%	57,1%	100,0%

Source: Survey data, 2025.

The analysis of the collected data allowed for the identification of behavioral patterns among the research participants, revealing sociodemographic profiles, the motivations that attract them, in addition to identifying behaviors in the context of losses and gains. Based on the literature, it was possible to find relationships with the empirical studies of Kahneman and Tversky (1979), where the sensitivity to losses is greater compared to gains, and that being conservative is better than taking risks.



#### **Final Considerations**

This study aimed primarily to analyze the profile of bettors in the municipality of Cuiabá and their loss aversion, based on Prospect Theory (1979). From this, information was gathered on sociodemographic characteristics, betting habits, motivations for betting in contrast to investments, and participants' perceptions in contexts of gains and losses.

The results show that the majority of bettors are young, aged 18 to 24 (35.6%), male (77.8%), with completed high school (43.0%), and a monthly income between 1 to 2 minimum wages (31.1%). Regarding the frequency of betting, a large part stated they bet more than three times per week. Additionally, the majority declared having up to 1 year of practice (39.3%), which may indicate that there has been growth in the activity over time.

The predominant motivations for the practice of betting are related to entertainment (45.2%) and the attempt to improve financial situation (37.0%), with the latter motivation being present among interviewees with lower incomes especially, among those earning less than 1 minimum wage and 1 to 2 minimum wages, (42.1%) and (50.0%), respectively. Furthermore, it was observed that the possibility of gains (51.9%) is the main reason cited for choosing to bet over traditional investments. In a way, individuals turn to betting as a viable alternative for short-term financial relief, even though it is not considered a form of investment.

Regarding financial behavior, it was found that a large part of the participants consider themselves to have an intermediate level (43.7%) regarding knowledge about their personal finances. Moreover, the majority of participants (64.5%) do not consider betting as a form of investment, although a significant portion (30.4%) sees it as a form of financial return. Other points to highlight are that (17.8%) of bettors have already used borrowed money to allocate betting, and (11.9%) have already failed to pay or purchase an essential bill. But even considering these facts, most participants stated that they did not have an impact on their budget (36.3%); others (23.7%) stated that betting brought a positive result.

Regarding the perspective of loss aversion, the applied choice simulations demonstrated patterns compatible with the theory. In the context of gains, (75.6%) opted for a safer choice, while in losses, there was a slight tendency toward



conservatism, preferring a more certain loss (50.4%), partially contradicting the theory. However, sensitivity to losses was shown to be more intense than to gains for (61.5%) of the participants, corroborating the value function proposed by Kahneman and Tversky (1979), who stated that losses were felt twice as much as gains.

In summary, the present work contributes to the understanding of the factors that influence bettors' behavior, highlighting how various aspects impact the decision-making process. As limiting factors: the number of samples collected. Another point is the difficulty in obtaining the sample; even though the sample location had a diversity of people, difficulty was encountered in finding the sample group. For future studies, a qualitative approach is recommended to delve deeper into the investigation of emotional and subjective motivations, serving as a complement to the present research. Furthermore, the approach of financial education, the impact of educational initiatives on personal finances and in reducing betting activities.

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# The Effects of Loss Aversion on Online Betting: A Study in Cuiabá, Brazil



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