

SELF-CONTROL, SOCIAL PRESSURE, AND THE PREVENTION OF ONLINE GAMBLING AMONG MUSLIM UNIVERSITY STUDENTS

Muhammad Arqam¹, Nenik Woyanti²

Diponegoro University

argamm@students.undip.ac.id , neniwoyanti346@gmail.com

Abstract

The development of digital technology has increased accessibility to online gambling and has transformed it into a serious socio-economic issue. Muslim university students in Jakarta are considered a relevant group, as they represented a population with high internet penetration while simultaneously being guided by Islamic teachings that prohibit gambling practices. This study aims to analyze the effect of self-control, Islamic financial literacy, income, and peer pressure on the prevention of online gambling behaviour among Muslims university students in Jakarta. This research adopt a quantitative approach with survey method involving 100 respondents. The results indicate that, simultaneously, self control, Islamic financial literact, income, and peer pressure have a significant effect on the prevention of online gambling behaviour. Partially, self control, income, and peer pressure show a significant and negative effect, while Islamic financial literacy does not demonstrate a significant effect. These findings suggest that the prevention of online gambling behaviour is influenced not only by internal factors but also by economic condition and social environment. This study emphasizes the importance of multidimensional preventive approach that incorporates both the strengthening of a healthy social environment and enhancement of individual awareness.

Keywords: Self-Control, Islamic Financial Literacy, Income, Peer pressure, Prevention Of Online Gambling Behaviour

Introduction

The development of digital technology has significantly transformed patterns of economic and social activities within society. The ease of internet access, the widespread use of mobile devices, and the integration of digital platforms into daily life have created new opportunities. In Indonesia, the level of internet penetration continues to increase. The Indonesian Internet Service Providers Association (APJII) reported that national internet penetration reached 79.50% in 2024, with students and university students constituting the largest group of users. Furthermore, at the regional level, DKI Jakarta recorded the highest internet penetration rate among provinces, reaching 87.51% (APJII, 2024). High internet usage among younger age groups creates opportunities for digital innovation, but at the same poses broad-scale social risks.

One of a phenomenon that has experienced massive growth alongside digitalization is gambling activity. Unlike conventional gambling, online gambling is more easily accessible, anonymous, available at all times, and supported by extensive promotion through digital media, thereby increasing the risk of participation among individuals, particularly younger generations, who tends to exhibit impulsive behaviour. The digitalization of gambling accelerates the expansion of online gambling industry through high accessibility, greater addictive potential compared to conventional gambling, and a tendency toward instant gratification (King et al., 2010).

In Indonesia, the scale of online gambling has reached an alarming level. Data from the Financial Transaction Reports and Analysis Center (PPATK) indicate that the number of online gambling participants continues to increase, accompanied by extremely large transaction values. In 2024, total online gambling transactions were recorded at hundreds of trillions of rupiah. Moreover, in the first quarter of 2025, approximately one million individuals were involved in online gambling activities, with total deposits reaching IDR 6 trillion. The 21–30 age group accounted for 37.6% of total participants, making it the second-largest age group after those aged 30–50. This condition demonstrates that online gambling has become a serious socio-economic problem. At the regional level, DKI Jakarta ranks as one of the areas with the highest levels of online gambling involvement, with approximately 600,000 participants, in line with its high internet penetration and the intensity of digital activity among its population.

The growth of online gambling cannot be separated from the massive promotion conducted through digital media. Gambling advertisements are often strategically designed to attract attention by portraying gambling as an enjoyable, low-risk, and casual activity (Rossi & Nairn, 2022). This representation may lead communities or social groups to normalize gambling practices in everyday life. The Ministry of Communication and Digital Affairs (Komdigi) reported that it handled more than one million pieces of online gambling content between late 2024 and 2025, the majority of which were promoted by fake social media accounts with large numbers of followers.

Gambling, both conventional and online, contradicts moral and social values as well as religious teachings, particularly Islam, which explicitly prohibits the practice of maysir (gambling). In addition, gambling generates negative economic and social consequences. Individuals with gambling problems tend to experience financial distress and often borrow money from family members or relatives to cover their losses (Davies et al., 2022). In the context of university students, involvement in online gambling may disrupt academic life, reduce learning performance, and increase the risk of mental health problems.

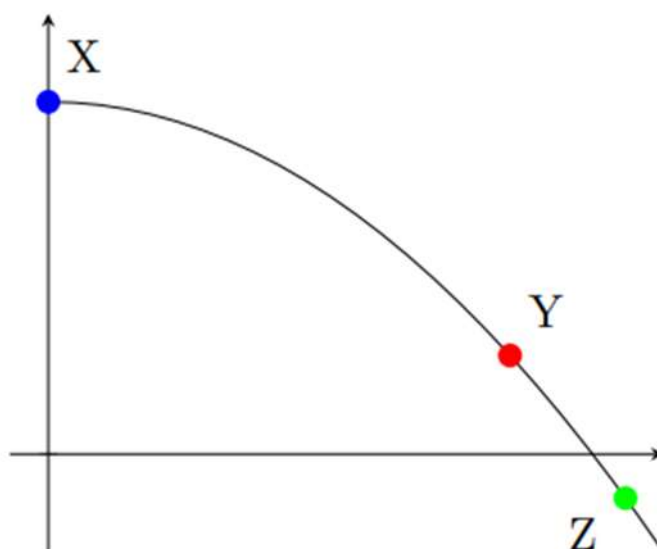
Muslim university students in Jakarta were selected as the focus of this study due to characteristics that are highly relevant to this phenomenon. This group is within a productive age range with a high level of internet penetration, while simultaneously adhering to Islamic teachings that explicitly prohibit gambling. A Populix report in 2024 noted that 82% of internet users in Indonesia had been exposed to online gambling advertisements. Furthermore, a segment analysis by Start.io entitled “Betting & Gambling Enthusiast in Jakarta” indicates that the majority of online gambling audiences fall within the 18–34 age range. This condition suggests that religious prohibitions against online gambling have not been fully reflected in the behavior of Muslim university students, thereby making this group particularly vulnerable to exposure to online gambling practices.

Literature Review

In classical economic theory, demand is assumed to follow the principles of rationality and risk aversion. However, in the context of gambling, this pattern cannot be fully explained by traditional models. The demand for gambling exhibits characteristics that differ from the classical demand curve. Gambling consumption is influenced not only by financial considerations but also by non-monetary utility such as entertainment, excitement, and the anticipation of winning (Cameron et al., 2024).

The gambling demand curve is illustrated with the horizontal axis representing the level of participation or intensity of gambling consumption, while the vertical axis represents the expected utility. At the initial stage (point X), individuals experience high positive utility driven by psychological factors such as curiosity and expectations of winning. As consumption increases, utility declines (point Y) due to financial losses and emotional pressure. At a more advanced stage (point Z), utility becomes negative, where additional consumption no longer generates enjoyment but instead leads to financial problems and addiction (Cameron et al., 2024).

Figure 1. Gambling Demand Curve



Furthermore, Cameron et al. (2024) developed a two-stage demand model to explain gambling behavior. The first stage refers to the participation decision, in which individuals choose whether to engage in gambling based on a comparison between anticipated psychological benefits and expected monetary losses. Cognitive biases in perceiving the probability of winning may increase the likelihood of participation, even when the activity is objectively disadvantageous. The second stage concerns the intensity decision, namely how frequently and how much individuals gamble. At this stage, prior gambling experience reinforces the urge to increase bets, thereby potentially leading to addictive behavior.

From a behavioral economics perspective, Herskowitz (2021) argues that gambling demand is influenced by liquidity constraints and low levels of savings, which may encourage individuals to increase their participation in gambling activities. In addition, Lind et al. (2021) find that online gambling increases both the frequency of participation and expenditure compared to offline gambling, primarily due to greater accessibility.

Consumer behavior theory explains how individuals allocate limited resources to satisfy needs and wants. Generally, consumer behavior is shaped by three key elements: preferences, budget constraints, and consumption choices. These elements describe how consumers attempt to maximize utility under conditions of limited resources. However, individuals differ in their attitudes toward risk. In the context of gambling, risk-loving individuals are more likely to be attracted to activities that offer low probabilities of winning but high potential returns.

In gambling consumption, decisions cannot be understood solely through expected financial value. Barberis (2012) explains that gambling provides non-monetary utility, such as

enjoyment and the thrill of risk, which makes it appealing despite its negative expected financial value. Drawing on prospect theory, individuals exhibit greater sensitivity to losses than to equivalent gains and tend to overweight small probabilities of winning.

Internal factors such as motivation, perception, attitudes, and self-control, as well as external factors such as peer influence and social environment, also shape consumption behavior (Hawkins & Mothersbaugh, 2010). Consequently, individuals may be encouraged to participate in online gambling due to entertainment motives, social pressure, or perceived opportunities for gain. Thus, the demand for online gambling is not driven solely by economic considerations but is also influenced by psychological, social, and value-based factors.

From a theoretical perspective, online gambling behavior can be explained through multiple dimensions. Self-control theory emphasizes that individuals with low levels of self-control are more likely to engage in risky and impulsive behaviors and tend to prioritize short-term over long-term (Gottfredson & Hirschi, 1990). In the context of online gambling, such behavior represents an activity that is easily accessible yet difficult to control. In addition, the Theory of Planned Behavior explains that individual behavior is influenced by attitudes toward the behavior, subjective norms, and perceived behavioral control. This framework highlights that engagement in a particular behavior may be driven by both internal and external factors (Ajzen, 1991).

Previous studies have examined factors influencing gambling behavior from psychological, financial, and social perspectives. Self-control is frequently identified as a key factor in reducing individual involvement in gambling activities. Several studies suggest that self-control strategies can assist individuals in preventing online gambling behavior; however, their effectiveness largely depends on each individual's ability to apply them consistently (Flores-Pajot et al., 2021). Conversely, other findings report differing results, indicating that self-control characteristics may have a positive relationship with tendencies toward online gambling addiction, although the magnitude of this effect is relatively small (Fahrezi & Simbolon, 2024). Furthermore, low levels of religiosity and weak self-control have also been shown to increase the risk of addiction to online gambling activities (Billah et al., 2025).

Islamic financial literacy is also an important factor in explaining gambling behavior. Studies indicate that individuals who engage in gambling activities, particularly lotteries, tend to have lower levels of financial literacy compared to the general population (Wang et al., 2024). Improvements in financial literacy have been shown to reduce involvement in gambling activities, especially among individuals with moderate levels of participation (Cho, 2022). Conversely, low financial literacy may encourage impulsive gambling behavior due to a weak understanding of long-term financial risks (Watanapongvanich et al., 2021). Nevertheless, most of these studies have focused on conventional financial literacy and have rarely adopted the perspective of Islamic financial literacy.

In addition to internal factors, economic conditions and the social environment also play a significant role in shaping individual behavior, including gambling behavior. Income and socio-economic status have been found to be associated with gambling involvement, with individuals with lower income levels tending to be more vulnerable to gambling-related problems (Amonhaemanon, 2024; Latvala et al., 2021). Expenditure on gambling activities is also more frequently observed among lower-income groups, thereby increasing the risk of serious social and financial consequences (Castrén et al., 2018). On the other hand, peer pressure has been shown to play a role in encouraging the initiation of and involvement in gambling, particularly among younger age groups (Parrado-González et al., 2023).

Furthermore, perceptions of gambling behavior within peer networks may increase the risk of deeper engagement in gambling activities (Zhai et al., 2017).

Although numerous studies on online gambling have been conducted, several research gaps remain to be addressed. First, most existing studies primarily focus on gambling behavior or gambling addiction rather than on the prevention of gambling behavior. Second, research that integrates psychological, economic, and social factors remains limited, particularly within the context of Muslim university students in Indonesia. Third, studies adopting an Islamic perspective, especially through the lens of Islamic financial literacy, in the context of gambling behavior are still relatively underexplored.

Based on these considerations, this study aims to analyze the effects of self-control, Islamic financial literacy, income, and peer pressure on the prevention of online gambling behavior among Muslim university students in Jakarta. This research is expected to contribute academically by enriching the existing literature on the prevention of online gambling behavior.

Method

This study employs a quantitative approach using a survey method, aiming to examine the effects of several independent variables on the dependent variable. The research model analyzes the influence of self-control, Islamic financial literacy, income, and peer pressure on the prevention of online gambling behavior among Muslim university students in Jakarta. The population of this study consists of actively enrolled Muslim students at higher education institutions in the DKI Jakarta region who have never engaged in online gambling activities. According to data from the Central Bureau of Statistics (BPS), the number of active university students in DKI Jakarta in 2024 was recorded at 768,603. Due to the unavailability of official data on the distribution of students by religion, the number of Muslim students was estimated using the proportion of the Muslim population in DKI Jakarta, which is 83.8%. Based on this estimation, the total population of Muslim university students is approximately 643,694 individuals. The sample size was determined using the Slovin formula, which is commonly applied in studies with large populations (Soesana et al., 2023). With a margin of error of 10%, the resulting sample size was 100 respondents after rounding.

Data were collected through an online questionnaire developed by adapting instruments from previous studies and adjusting them to the research context. All questionnaire items were measured using a five-point Likert scale, except for the income variable, which was measured using numerical values.

The dependent variable in this study is the prevention of online gambling behavior. This variable was measured using a modified version of the Gambling Refusal Self-Efficacy Questionnaire (GRSEQ), which assesses an individual's level of confidence in refusing involvement in online gambling. Higher scores indicate a greater level of preventive capability (Casey et al., 2008).

The independent variable of self-control was measured using an adapted version of the Brief Self-Control Scale (BSCS), which assesses an individual's ability to regulate impulsive urges and maintain a focus on long-term goals (Tangney et al., 2004). Islamic financial literacy was measured using indicators related to financial knowledge, attitudes, and behaviors based on Islamic principles. This instrument was adapted from previous research and measured using a five-point Likert scale (Dinc et al., 2021). Income was defined as the respondent's average monthly earnings, derived from allowances, scholarships, or employment. Income data were measured in Indonesian rupiah per month and transformed

into natural logarithmic form (Ln) to reduce potential distributional bias. The final independent variable, peer pressure, was measured using adapted indicators reflecting social pressure from peers to conform to group behaviors (Parrado-González et al., 2023).

Data analysis was conducted using SPSS software. The analytical procedure began with validity and reliability tests to ensure that the research instruments accurately and consistently measured the variables. Classical assumption tests, including normality, multicollinearity, heteroscedasticity, and autocorrelation tests were performed prior to regression analysis. Finally, multiple linear regression analysis was employed to test the research hypotheses, using the F-test (simultaneous) and t-test (partial) at a 5% significance level. In addition, the adjusted R-squared value was used to assess the model's explanatory power regarding variations in the dependent variable (Gujarati & Porter, 2013).

Results and Discussions

The results indicate that self-control, income, and peer pressure have a significant effect on the prevention of online gambling behavior, whereas Islamic financial literacy does not exhibit a significant effect. Simultaneously, these four variables explain 46.2% of the variation in the prevention of online gambling behavior among Muslim university students in Jakarta, suggesting that preventive behavior is influenced not only by internal factors but also by economic conditions and social pressure.

Table 1. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Dependent Variable					
Prevention of Online Gambling Behaviour (PPJO)	100	11	30	27,54	2,58
Independent Variable					
Self-Control (KD)	100	10	25	20,74	3,33
Islamic Financial Literacy (LKS)	100	8	25	21,13	2,99
Income* (Pen)	100	12,61	16,12	14,62	0,71
Peer Pressure (PP)	100	5	23	7,88	3,01

* Income data were transformed into natural logarithmic form (Ln)

Table 1 presents the descriptive statistics for all variables examined in this study. For the Online Gambling Prevention Behavior (PPJO) variable, the mean is 27.54 and the standard deviation is 2.58. In addition, the minimum value is 11 and the maximum value is 30. This indicates that, in general, the level of online gambling prevention behavior among students is relatively high and the responses tend to be homogeneous.

For the Self-Control (KD) variable, the minimum value is 10 and the maximum is 25, with a mean of 20.74 and a standard deviation of 3.33. This shows that the respondents' level of self-control is quite high; however, the standard deviation indicates greater variation compared to the PPJO variable, although it is still in the relatively homogeneous category. The Islamic financial literacy variable shows a minimum value of 8 and a maximum value of 25, with a mean of 21.13 and a standard deviation of 2.99. When compared to the midpoint of the score range, the mean value of the LKS variable is far above it, indicating that the majority of respondents have a relatively high level of understanding. Meanwhile, the standard deviation indicates that respondents' answers are quite varied.

The income variable, which was transformed into natural logarithmic form (Ln), has a minimum value of 12.61 and a maximum value of 16.12, with a mean of 14.62 and a standard deviation of 0.71. This transformation was carried out to stabilize and facilitate the interpretation of the regression analysis results. The relatively small standard deviation indicates that the distribution of respondents' income does not show extreme dispersion after the transformation. As for peer pressure, it has a minimum value of 5 and a maximum value of 23, with a mean of 7.88. This shows that, in general, the level of peer pressure experienced by respondents is relatively low. However, the relatively large standard deviation indicates that some respondents experience peer pressure at a fairly high level.

Validity and reliability tests were subsequently conducted to ensure the quality of the research instruments. Validity testing was performed by examining the correlation between item scores and total scores, and all variables in this study demonstrated correlation values above the minimum required threshold, indicating that all items are valid. Reliability testing was conducted using Cronbach's Alpha coefficient, and all variables showed values exceeding 0.60. These results indicate that the research instruments possess an acceptable level of internal consistency for further analysis (Hinton et al., 2004).

Prior to conducting regression analysis, this study also tested the classical assumptions, including normality, multicollinearity, and heteroscedasticity. Residual normality was assessed using the Normal P–P Plot and the Kolmogorov–Smirnov statistical test. Graphically, the residual distribution appears to follow the diagonal line reasonably well without extreme deviations. Although the Kolmogorov–Smirnov test indicated non-normality, additional assessments were conducted using the coefficient of variation, which showed that all variables had a ratio of standard deviation to mean below 50%. Furthermore, with a sample size of 100 respondents, the data are considered sufficiently robust and approximately normally distributed in accordance with the Central Limit Theorem (Mishra et al., 2019; Kwak & Kim, 2017).

Furthermore, the multicollinearity test results indicate that all independent variables have tolerance values above 0.10 and Variance Inflation Factor (VIF) values below 10, suggesting the absence of strong linear relationships among the independent variables. Heteroskedasticity was examined using a scatterplot approach, the Breusch–Pagan test, and the Park test. Visually, the residuals are randomly distributed and do not exhibit any specific pattern. Although the Breusch–Pagan test indicates the presence of heteroskedasticity and the Park test shows significance for the Islamic financial literacy variable, these indications are considered weak and not consistently observed across all variables. Autocorrelation testing using the Durbin–Watson statistic indicates positive autocorrelation. However, given that the data are cross-sectional, this result should be interpreted with caution and does not serve as the primary basis for rejecting the model's adequacy (Chen, 2016).

The results of the simultaneous test (F-test) indicate that the regression model is statistically significant. The calculated F-value is 22.294 with a significance level of $p < 0.001$, which is below the 0.05 significance threshold. This finding indicates that self-control, Islamic financial literacy, income, and peer pressure jointly have a significant effect on the prevention of online gambling behavior.

The results of the partial test (t-test) reveal differences in the effects of the independent variables on the prevention of online gambling behavior. The results of the t-test are presented in Table 2.

Table 2. Results of Multiple Linear Regression Analysis

Model	B	T-value	Sig t	Remarks
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(Constant)	44,473	10,660	< 0,001	
Self-Control (KD)	- 0,185	- 2,771	0,007	Significant
Islamic Financial Literacy (LKS)	0,091	1,310	0,193	Not Significant
Income (Pen)	- 0,709	- 2,630	0,010	Significant
Peer Pressure (PP)	- 0,591	- 8,302	< 0,001	Significant

The self-control variable is shown to have a significant negative effect ($p = 0.007$). This finding indicates that higher levels of self-control among respondents are associated with a lower tendency toward preventive efforts. Islamic financial literacy does not exhibit a significant effect on the prevention of online gambling behavior ($p = 0.193$), suggesting that an understanding of Islamic principles is not necessarily internalized into actual behavior. Meanwhile, income has a significant negative effect on the prevention of online gambling behavior ($p = 0.010$), indicating that students with higher income levels tend to exhibit lower levels of preventive behavior. Peer pressure demonstrates the strongest and most significant negative effect ($p < 0.001$), implying that higher levels of peer pressure are associated with a reduced tendency among students to engage in the prevention of online gambling behavior.

Furthermore, the adjusted R -squared value of 0.462 indicates that 46.2% of the variation in the prevention of online gambling behavior can be explained by the combination of independent variables included in this research model, while the remaining variation is influenced by other factors outside the model.

Based on these results, the estimated regression equation is formulated as follows:
 $PPJO = 44.473 - 0.185(SC) + 0.091(IFL) - 0.709(\ln Income) - 0.591(PP) + e$.

Partially, self-control has a negative and statistically significant effect, indicating that a one-unit increase in self-control reduces the prevention of online gambling behavior by 0.185 units, assuming other variables remain constant. In contrast, Islamic financial literacy has a positive coefficient but is not statistically significant, suggesting that a one-unit increase in this variable does not significantly enhance the prevention of online gambling behavior among students.

Income, which was transformed into natural logarithmic form, also shows a negative and significant effect, implying that a 1% increase in income is associated with a decrease of 0.00709 units in the prevention of online gambling behavior. This finding suggests that an increase in economic resources does not necessarily promote preventive behavior toward online gambling. Meanwhile, peer pressure exhibits the strongest negative effect, where each one-unit increase in peer pressure reduces the prevention of online gambling behavior by 0.591 units. This result highlights the dominant role of the social environment in weakening preventive efforts.

The negative and significant effect of self-control indicates that individuals with higher levels of self-control tend to perceive preventive efforts as less urgent. Such individuals are confident in their ability to manage their own behavior, which in turn reduces their reliance on preventive mechanisms. This finding extends the understanding that self-control does not always function as a protective factor, particularly among individuals embedded in social environments that are permissive toward gambling. Flores-Pajot et al. (2021) demonstrate that social influence can weaken individual control, while Choi and Kim (2021) emphasize that impulsivity and irrational beliefs constitute primary pathways leading to gambling problems. Therefore, prevention strategies should not solely emphasize general self-control but should also address the cognitive and situational factors that trigger gambling behavior.

The non-significant effect of Islamic financial literacy indicates a gap between normative knowledge and behavioral practice. Although students may be aware of Islamic teachings, particularly the prohibition of gambling, such understanding does not necessarily translate into everyday decision-making. This finding is consistent with studies by Amonhaemanon (2022) and Wang et al. (2024) which suggest that financial knowledge is not always associated with gambling behavior, while financial attitudes and ethics play a more critical role. Moreover, higher levels of financial literacy may foster overconfidence, which can lead individuals to engage in financially risky decision-making (Grable et al., 2021).

The negative and significant effect of income on the prevention of online gambling behavior indicates that students with higher income levels tend to exhibit greater risk tolerance. Respondents with more stable financial conditions may perceive gambling-related risks as less threatening, thereby weakening preventive efforts. This finding is consistent with Grönroos et al. (2021) who reported that gambling patterns are observed across all income groups, as well as with Bussu and Detotto (2013), who found that higher-income individuals tend to wager larger amounts of money.

Peer pressure emerges as the variable with the strongest effect in the research model, underscoring the social environment as a primary determinant of student behavior. Peer pressure significantly reduces individuals' propensity to engage in preventive actions. This result supports the findings of Man (2024) and Parrado-González et al. (2023) which indicate that social pressure increases the likelihood of individuals experimenting with gambling behavior. Furthermore, Langhinrichsen-Rohling et al. (2004) emphasize that peer influence is a key factor in the initiation of gambling behavior at a young age, suggesting that preventive efforts are unlikely to be effective without a social environment that actively discourages gambling.

Simultaneously, the four variables are able to explain nearly half of the variation in the prevention of online gambling behavior. These findings indicate that gambling prevention is the result of interactions among multiple factors, both internal and external. The model employed in this study reinforces the notion that effective prevention strategies must be multidimensional, focusing not only on enhancing self-control or financial literacy but also on shaping the social environment and managing perceptions of economic risk.

Conclusion

This study aims to examine the effects of self-control, Islamic financial literacy, income, and peer pressure on the prevention of online gambling behavior among Muslim university students in DKI Jakarta. The findings indicate that self-control, income, and peer pressure have a significant effect on the prevention of online gambling behavior, whereas Islamic financial literacy does not demonstrate a significant influence. These results suggest that the prevention of online gambling behavior is not solely determined by normative knowledge or individual internal factors but is also shaped by social pressure within the student environment. Peer pressure emerges as the most dominant factor, emphasizing the critical role of the social environment in influencing students' tendencies either to avoid or to become exposed to gambling practices.

Based on these findings, the recommended policy implications highlight the need for preventive strategies that do not focus exclusively on individual-level interventions but also prioritize the development of a healthy social environment within and around university campuses. By addressing both individual factors and the surrounding social context,

preventive efforts among university students are expected to become more effective and sustainable.

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