

ORIGINAL RESEARCH PAPER

GAMBLING ADDICTION, GAMBLING INTENTION AND FINANCIAL WELLBEING IN BOSNIA AND HERZEGOVINA

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ABSTRACT

The goal of this study is to raise awareness about the various risks associated with gambling. It will focus on the effects of gambling addiction on gambling intention and its implications for financial wellbeing. It is known from previous research that gambling influences the family's functioning, as well as the work-related aspects of the individual's life. The negative effects gambling has on the workplace are more severe, such as decreased work efficiency and theft. We were curious about these effects in Bosnia and Herzegovina as a country with many customers of gambling services. The rise of Internet and social media platforms has led to an increase in the number of people gambling. Our findings indicated that gambling addiction has statistically significant positive effects on gambling intention which consequentially has statistically significant, but negative effects on financial wellbeing of individuals. Considering this empirical evidence, we can recommend to related governmental and non-governmental institutions of Bosnia and Herzegovina to put this issue on their agenda and raise the awareness of society on negative effects of gambling addiction and gambling intention. On the other hand, we recommend future researchers to focus more on this important research problem and in that way provide foundations for solving the related social problem.

Keywords: Gambling Addiction, Gambling Intention, Financial Wellbeing, Bosnia and Herzegovina



MAP SOCIAL SCIENCES

Volume 4

ISSN: 2744-2454 / © The Authors.
Published by MAP - Multidisciplinary
Academic Publishing.

Article Submitted: 12 June 2023
Article Accepted: 04 July 2023
Article Published: 09 July 2023



Publisher's Note: MAP stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

<https://doi.org/10.53880/2744-2454.2023.4.8>



HOW TO CITE THIS ARTICLE

Sučić I., Mekić E., Duerod M. (2023). **Gambling Addiction, Gambling Intention and Financial Wellbeing in Bosnia and Herzegovina**. MAP Social Sciences, 4, 8-14.

doi: <https://doi.org/10.53880/2744-2454.2023.4.8>



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1. INTRODUCTION

The one can hear from society that people gamble because they are bored, lonely, or just want to meet new people. Some people find comfort and peace in betting shops, and some people gamble as an escape from their problems at home, work or school. Reasons could be summarized into economic, personal, recruitment, environmental and social (Tse, et al., 2012).

On the global scale, the gambling industry is one of the fastest growing in the world, and a Bosnia and Herzegovina appear to be no exception to this. Having gambling services readily available, especially in online form, citizens of Bosnia and Herzegovina are more exposed to the adoption of gambling intention. Anida Dudić-Sijamija and Lamija Silajdžić (2021) are two researchers from Bosnia and Herzegovina who focused on this issue and reported that there are sports betting shops near most high schools which is a threat for increase in gambling intention among young population. The results indicated that more than 70% of young people have played some form of gambling at least once. They also found that the most popular form of gambling among young people in Bosnia and Herzegovina is sports betting followed by lottery and online games (Dudić-Sijamija & Silajdžić, 2021).

According to Akta (2021), the taxation office of Federation of BiH has evaluated 58, and 55 bet shops are closed due to working without approval of Federal Ministry of Finance (Akta, 2021). Akta (2022) also reported based on official records of taxation office of Federation of BiH that in only 8 months period, the gambling industry in Federation of Bosnia and Herzegovina earned over 1 billion BAM (over half billion EUR) (Akta, 2022). If we look into another part of Bosnia and Herzegovina, during a 10-year period, in entity Republika Srpska, 373 new bet shops have been established and started doing business (Akta, 2022).

The one may conclude that while on one hand there are numerous possibilities to gamble, especially thanks to digitalization of businesses, on the other hand there is very little effort to prevent gambling addiction using prevention programs.

Bearing on mind previously mentioned facts and trends, we will use this study to respond to this social problem in Bosnia and Herzegovina. The main goals of this study are:

- To measure the gambling addiction, gambling intention and financial wellbeing level in Bosnia and Herzegovina.

- To investigate the impact of gambling addiction on gambling intention.
- To investigate the impact of gambling intention on financial wellbeing.
- To propose recommendations to government, NGO sector and future researchers.

In the upcoming section of this study, a review of literature used in this study will be presented. After that, the section researcher methodology will provide information on instrument, data collection, sampling, statistical analysis methods used in the study. Finally, results will be presented, discussed, and concluded.

2. LITERATURE REVIEW

In this section, we will provide a brief review of studies which are found to be important for consideration while doing research on gambling. Each study provided significant evidence, and more details are provided in the subsequent paragraphs.

Observing gamblers may lead to the conclusion that they like not gambling itself, but the procedures and forms of gambling. Accordingly, someone may say that he/she is gambling because he/she likes sports. Considering fact that people experience variety of gambling-related problems and tend to gamble in multiple forms, it is still unclear whether problems identified amongst sports bettors are due to sports betting itself. According to findings of Russell, Hing & Browne (2019) there are various demographic, behavioral and psychological risk factors for gambling. Their findings indicated that the main predictors for gambling were motivations such as money, gambling urges and erroneous cognitions, alcohol issues and lower self-control, but not sports betting behavior (Russell, Hing, & Browne, 2019).

Pisarska & Ostaszewski (2020) focused on factors associated with gambling of youth. Their longitudinal study revealed that even 50% of students were engaged in some type of gambling at least once. Lottery games, scratch cards, card games as well as participation in sports betting seems to be prevalent gambling types. The key result of this study is that prevention interventions such as positive parent-child relation building could be effective in counteracting gambling behavior of young people (Pisarska & Ostaszewski, 2020).

Dudić-Sijamija & Silajdžić (2021) focused on habits of young people gambling in the society of Bosnia and Herzegovina. Their results reveal that 70% of youth have played some form of gambling at least once in their lifetime. The young people

are present as customers in all types of gambling such as sports betting, lottery, games of chance, and many of them do gambling activities on their smartphones. It is very worrying that young people do not see gambling behavior as problematic, neither they believe that they need professional help. Such a results are alarming for all responsible governmental and non-governmental institutions to do what is necessary to slow the existing trend of gambling growth among young people (Dudić-Sijamija & Silajdžić, 2021).

Draganović & Kulanić (2020) focused more deeply on one ethnic group in Bosnia and Herzegovina and provided evidence on socio-demographic aspects of their gambling. They were investigating gambling behavior of Bosniaks and found that different types of gambling are influenced by socio-demographic variables such as gender, geography (urban vs. rural), education level, age group and monthly income. Authors emphasized negative effects that compulsive gambling may produce such as seriously disrupted physical, emotional, mental and material state of the individual, but also on their families and friends (Kulanić & Draganović, 2020).

In 2020, Rebecca Cassidy published a book entitled, *Vicious Games: Capitalism and Gambling*, about the people who produce, consume, and profit from gambling. She explains how it evolved from criminal activity to a respectable business. Her book reveals how the industry extracts wealth from some of our poorest communities and examines the health effects on those fighting gambling addiction. By taking readers behind the scenes of commercial gambling industry, Rebecca Cassidy (2020) offers a new insight into this social problem. The profitability of this industry made it very influential on government policies (Cassidy, 2020).

Loo, Shi and Poo (2016) focused on relationships among gambling, drinking and quality of life in Macao and Australia. Authors attempted to bridge gap in the literature by investigating impact of gambling on quality of life. Their findings show that pathological gamblers as compared with non-gamblers reported significantly lower quality of life, and this pattern exists in all domains of quality of life such as physical health, psychological well-being, social relationships, and environment (Loo, Shi, & Pu, 2016).

Wee and Kang (2021) examined the relationship between Addiction Problems, Aggression, and Quality of Life in People with Different Occupations in South Korea. They conclude that behavior-

al addiction is a serious problem related to mental health and quality of life. Moreover, excessive gambling can induce a broad range of physical, social, and economic problems at the individual and family level. Finally, there is a need for better gambling problem management through cooperation between institutions in South Korea (Wee & Kang, 2021).

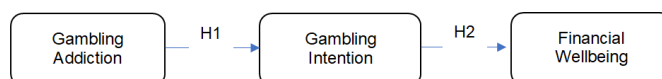
Based on research reviewed, we propose two hypotheses for this study:

H1: Gambling Addiction affects Gambling Intention of people in Bosnia and Herzegovina

H2: Gambling Intention affects Financial Wellbeing of people in Bosnia and Herzegovina

The hypothesized relationships are presented in visual form using figure 1 below.

Figure 1.
Research Model



3. METHODOLOGY

3.1 Research Design

In this study, mixed research methods were used. Precisely, qualitative approach was used to come up with the proposed research model, but quantitative approach was applied to test the proposed model on real data from Bosnia and Herzegovina. Variables Gambling Addiction, Gambling Intention and Financial Wellbeing were measured using appropriate psychometric scales. Finally, multiple statistical procedures were applied to check validity and reliability of measurement instrument, but also to test the proposed hypotheses. More details on instrument preparation, data collection procedures, statistical analysis, population, and sample are available in the following paragraphs.

3.1.1 Instrument Preparation

The survey's first section asks inquiries about the sociodemographic details of its respondents such as: gender, education level, age, social class, and income level. The second section contains scales for measuring gambling addiction, gambling intention and financial wellbeing. All mentioned variables are measured using the 5-point

Likert scale described as follows:

- 1- I strongly disagree,
- 2- I disagree,
- 3- I am neutral,
- 4- I agree and
- 5- I strongly agree.

To measure the three latent variables from the model, namely "Gambling Addiction", "Gambling Intention" and "Financial Wellbeing" we have relied on scales developed and validated by other researchers. For measuring variable Gambling Addiction, we have slightly adjusted scale for measuring "Compulsive Buying" originally prepared by D'Astous, Maltais and Roberge (1990) and composed of 11 items. The scale was adjusted, and all 11 items were used to measure "Gambling Addiction" variable.

If someone observes gambling intention as buying services of gambling providers, then one may conclude that a scale to measure "Purchase Intention" with small adjustments could be very beneficial to measure "Gambling Intention". Accordingly, we have relied on the work of Rodgers (2004) who proposed a scale to measure "Purchase Intention". In addition to original items in the scale, we have added two more "In the next 2 weeks I intend to play poker machines" and "In the next 2 weeks I intend to buy lottery ticket". After the adjustment process of scale "Purchase Intention", version of Rodgers (2004), we decided to use five items to measure "Gambling Intention" variable. The third variable Financial Wellbeing was measured using a financial wellbeing scale developed by Consumer Financial Protection Bureau (2015). All eight items are selected as appropriate to measure Financial Wellbeing of respondents in our study.

3.1.2 Data Collection Procedures

An online survey was implemented in this study to collect data and investigate the relevant variables. The questionnaire was delivered in Bosnian language after being translated from English. Respondents were on one hand randomly selected and contacted directly, while on the other hand they were self-selected since we have published the survey link on several social networks whose users were voluntarily participating in the study. A total of 217 responses was sufficient sample size to proceed with the data analysis.

3.1.3 Statistics and Methods Applied

The data was statistically analyzed using SPSS Statistics software package. The required sta-

tistical procedures have been carried out to assess the reliability and validity of the scales employed in the survey. Once the validity and reliability were confirmed, we proceeded with the descriptive statistics and regression analysis which resulted in many useful conclusions.

3.1.4 Population and Sample

Population of this research are residents of Bosnia and Herzegovina. Two sampling techniques were applied in this study, a random sampling and self-selection sampling. We have directly contacted randomly selected respondents in such a way that each person in the vast population had the same chance of getting chosen. On other hand, to improve response rate, we also used self-selection sampling by publishing survey links on social networks and letting their users decide whether they will participate. In addition to that, people who participated in the survey were asked to forward the link to their friends, relatives or colleagues who might be interested in taking part in the study. In fact, the previous two sampling techniques were backed up with snowball sampling.

Table 1.
Sample Characteristics

Variable	Demographics	Number	Valid Percentage
Gender	Male	91	41.9%
	Female	126	58.1%
Education	High School	97	44.7%
	Bachelor Degree	90	41.5%
	Master Degree	26	12.0%
	PhD Degree	4	1.8%
Age	15 - 19 years	8	3.7%
	20 - 30 years	87	40.1%
	31 - 40 years	60	27.6%
	41 - 50 years	44	20.3%
	51 + years	1	.5%
Social Class	Low Social Class	13	6.0%
	Medium Social Class	187	86.2%
	High Social Class	17	7.8%
Monthly Income	500 - 999 BAM	55	25.3%
	1000 - 1500 BAM	72	33.2%
	1501 - 2999 BAM	66	30.4%
	3000 BAM +	24	11.1%

The study involved 217 respondents in total. In terms of demographics, female gender prevailed while most of respondents were having high school or bachelor's degree. When it comes to educational level, the majority were having only a high school while bachelor's degree was following most frequent category. People from 20-30 years of age appear to be most dominant in our sample. Most of respondents (even 86.2%) belong to medium social class, while in terms of income, they mostly earn 1000 – 1500 BAM (33.2%) monthly.

4. RESULTS & DISCUSSION

Data collected from 217 respondents provided many useful insights into the gambling topic and offered a good foundation to implement the goals of this study. We will firstly present evidence of validity and reliability for measuring variables in our model. After that, the empirical results will be reviewed, and hypothesized effects will be discussed.

4.1 Evidence of Validity and Reliability

Exploratory Factor Analysis and Cronbach's Alpha are utilized to assess the validity and reliability of the scales employed for this study investigation before moving to the hypotheses testing phase. Results of mentioned procedures are presented in table below.

Table 2.
Validity and Reliability of Scales

Variable / Item	Factor loadings			Cronbach's Alpha
	Gambling Addiction	Gambling Intention	Financial Wellbeing	
GA1	.711			.915
GA2	.769			
GA3	.702			
GA4	.810			
GA5	.838			
GA6	.602			
GA7	.616			
GA8	.864			
GA9	.852			
GA10	.761			
GA11	.825			

GI1		.851		.852
GI2		.795		
GI3		.866		
GI4		.749		
GI5		.755		
FW2			.649	.788
FW3			.667	
FW4			.845	
FW5			.626	
FW6			.738	
FW8			.685	
*Note: FW1 and FW7 are removed due to weak loadings.				

The Cronbach's alpha for variables is satisfactory when 0.70 or higher (Cronbach, L. J., 1951). The results of factor analysis and reliability tests' results presented in table above indicate that scales used to measure variables in the model are both valid and reliable.

4.2 Results of Hypotheses Testing

The results of regression analysis are presented in the table below. All hypotheses are supported, and the effects are statistically significant at confidence level of 95%.

Table 3.
Empirical Findings

Hypothesis	Effects	Results	Hypothesis Status
H1	GA -> GI	p < 0.000** t = 17.222 β = 0.761	Supported
H2	GI -> FW	p < 0.029* t = -2.193 β = -0.148	Supported
*Significant at 95% confidence level.			
*Significant at 99% confidence level.			

The hypothesis one has been supported with a p value of 0.000 which is below 0.01 (on 99% confidence level). This means that Gambling Addiction has statistically significant direct effects

on Gambling Intention. Both beta coefficient (0.761) and t statistics (17.222) indicate that the influence is positive. If Gambling Addiction increases by 1 unit (100%), the Gambling Intention increases for even 0.761 (76.1%).

The second hypothesis has been supported with a p value of 0.029 which is below 0.05 (on 95% confidence level) revealing that that Gambling Intention has statistically significant direct negative effects on Financial Wellbeing. Both beta coefficient (-0.148) and t statistics (-2.193) indicate that the influence is negative. If Gambling Intention increases by 1 unit (100%), the Financial Wellbeing decreases for 0.148 (14.8%).

CONCLUSION

The main purpose of this study was to raise awareness about the various risks associated with gambling. It focuses on the effects of gambling addiction on gambling intention and its implications for financial wellbeing of individuals in Bosnia and Herzegovina. Lessons learned from previous research that gambling influences the family's functioning, as well as the work-related aspects of the individual's life. The negative effects gambling has on the workplace are more severe, such as decreased work efficiency and theft. We were curious to investigate these effects in Bosnia and Herzegovina as an example of country with many customers of gambling services.

Global digitalization processes led to an increase in the number of people gambling. Our findings indicated that gambling addiction has statistically significant positive effects on gambling intention which consequentially has statistically significant, but negative effects on financial wellbeing of individuals. Considering this empirical evidence, we can recommend to related governmental institutions of Bosnia and Herzegovina to put this issue on their agenda and raise the awareness of society on negative effects of gambling addiction and gambling intention.

It is also recommended to non-governmental sector in Bosnia and Herzegovina to focus on development of gambling prevention programs and try to get support from relevant international organizations. Raising awareness of society, especially focusing on young population, about negative effects of gambling addiction and gambling intention through different NGO projects, public events, free seminars, workshops, and other forms shall be on top of their agenda.

The main limitation of this study is a small sample size, and it would be recommended to replicate this study in future at larger sample size. Moreover, there are many issues to be addressed by researchers in future such as comparing gambling addiction of individuals in Bosnia and Herzegovina across different administrative units of this state. This would enable responsible governmental and non-governmental institutions to be aware of how critical different regions of our country (entities, cantons, municipalities) are, and to adjust their goals in treating this problem with prevention programs accordingly.

Another important aspect to be considered by future researchers is investigating mediators in a relationship between gambling addiction and gambling intention, investigating mediators in a relationship between gambling intention and financial wellbeing, repeating studies done already on gambling in Bosnia and Herzegovina but on larger sample size, focusing on implications of gambling intention and gambling behavior for other variables such as quality of life, productivity etc.

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