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Determinants of Consumer Intention to Use Online Gambling Services:
An Empirical Study of the Portuguese Market

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ABSTRACT

Online gambling has skyrocketed in recent years. As such, knowing the determinants of consumer usage behavior is crucial in understanding online gambling services. This study has as main objective the construction of an explanatory model of the online gambling services usage behavior, based on the incorporation of perceived risk in the conceptual framework of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). The empirical validation of the model was performed by conducting an online survey to a convenience sample of 212 Portuguese online players. Data were processed using the PLS-SEM methodology. The results evidence that performance expectancy, social influence, facilitating conditions, hedonic motivations, price value, habits, as well as perceived risk influence the intention to use online gambling services.

KEYWORDS

E-marketing, Online Consumer Behavior, Online Gambling, Perceived Risk, UTAUT2

INTRODUCTION

As a result of technological advances and greater social tolerance, online gambling is now an activity with an increasing number of users. In fact, with the web 2.0 and the increasing ease of Internet access, online gambling companies realized that online presence was mandatory. Thus, since the early 1990s this is an increasing phenomenon.

Technological advances, greater social tolerance and the legalization of online gambling has led to the rapid growth of the online gambling industry that reached US$29 billion in 2012 (H2 Gambling Capital, 2013). This tremendous growth highlighted the importance of online gambling market regulation in the European Union, which shifted from a clandestine activity to an important source of revenue and employment (Laffey, Della Sala, & Laffey, 2015). With the increased ease of Internet access, online gambling companies realized that online pressure was mandatory.

While there are numerous studies on gambling addiction (e.g., Khazaal et al., 2013; Griffiths, Kuss, Billieux, & Pontes, 2016; Przepiorka & Blachnio, 2016), Yuan (2015) analyzed online gambling in China and concludes that not only lottery gamblers display irrational beliefs as they are strongly influenced by their winning history, but also they are significantly more likely to joining a lottery package if it is proposed by proposers who has had higher rates of returns. Moreover, the site atmospherics has been overlooked in the study of online gambling as they affect gamblers' behavioral intentions (Abarbanel, Bernhard, Singh, & Lucas, 2015). Recent technological advances

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have facilitated online gambling through the use of tablets, smartphones, internet, and other online platforms, which have led to a huge supply of online casinos. With the low switching costs, marketing managers face a major challenge: to understand the factors that explain the online gambling and to use this knowledge to capture, retain and engage more and more users. There are few published studies in this area and this study is intended to help fill this gap.

The main objective of this work is to build and empirically validate a model of the determinants of behavioral intention to use online gambling sites, in order to understand and explain the online gambling phenomenon.

THEORETICAL FRAMEWORK

The Online Game

Online games started in Antigua and Barbuda in 1994 (Wood & Williams, 2007). Online Casinos started in 1995, and in 1997 the growth of online casinos skyrocketed: from 15 websites in 1996, to more than 700 in 1998 (Schwartz, 2006). Despite several attempts to ban Internet gambling in the United States and Canada, it thrived as a result of the development of gambling specific software and the development of "legitimized" business-like Internet casinos (Spectrum Gaming Group, 2010).

In 2010 there were 2679 Internet gambling websites owned by 665 different companies (H2 Gambling Capital, 2013). However many Internet gambling companies create multiple websites, brands and third-party sites or operators, which is accelerating the consolidation of this market. However, little is known about the main determinants of consumer intention to use online gambling services. The importance of the needed knowledge about online gambling is reinforced by Manzin and Biloslavo (2008) who claim that not only 6.82% traditional gamblers also gamble online, but also traditional gamblers are totally different than online gamblers.

For Wood and Williams (2007), the online game has some attributes that clearly distinguish it from traditional "brick and mortar" casinos. The most obvious attribute is the relative convenience, comfort and ease of the online game as people can play at anytime and anywhere (provided there is an internet connection).

The yielding potential is higher and online game costs are smaller due to lower costs compared to traditional casinos. On the other hand, with a few clicks gamblers can easily switch to another online competitor casino.

For online gamblers, an aversion to the traditional casinos atmosphere and clientele may be pointed out, as well as a preference for the pace and nature of the online gambling: the interaction with other players is virtual, i.e., the feeling of stress is not shared and the identity of the players is protected. Although Manzin and Biloslavo (2008) include two types of online gambling: gaming (casino style games), and betting or wagering, which include raring and sport events, in this study we refer to online gambling in broad terms.

UTAUT and UTAUT2

The Unified Theory of Acceptance and Use of Technology Model (UTAUT) is a theoretical model that merges the main theories about the acceptance of information technology in such a way that it explains the acceptance and use of information technology services, better than most other models (Lu & Lee, 2011).

Created by Venkatesh, Morris, Davis, and Davis (2003), this model aims to explain the intentions of information systems users and consequently their behavior. The model is based on the review and consolidation of the constructs of eight previous models, which sought to explain similarly the behavior of users in information systems: theory of reasoned action (TRA); technology acceptance model (TAM); motivational model (MM); theory of planned behavior (TPB); the combined model between theory of planned behavior and technology acceptance model (C-TPB-TAM); model of personal computer use (MPCU); innovation diffusion theory (IDT); and social cognitive theory (SCT).

The UTAUT has four main constructs that influence the behavioral intention and use of information technology: performance expectancy, social influence, effort expectancy and facilitating conditions.

In order to fill the gap that limited the use of UTAUT in research on consumer behavior Venkatesh, Thong, and Xu (2012) published a study (UTAUT2), which extended the model for analysis of individual technology acceptance and use.

The authors presented three new constructs for the UTAUT2 model. The first is the hedonic motivation (intrinsic motivation). The second is price value, considered an important factor, as consumers have to bear the costs associated with the purchase of equipment and services. Finally, the third construct is habit.

Several researchers have used UTAUT2 as the basis for their empirical investigations on the field of online consumer behavior (e.g.: Escobar-Rodríguez & Carvajal-Trujillo, 2013; Pascual-Miguel, Agudo-Peregrina, & Chaparro-Peláez, 2015; Slade, Williams, Dwivedi, & Piercy, 2015).

The proposed research model is based on UTAUT2 in order to bring together the required variables to explain the acceptance and use of online gambling sites. This choice is related to the fact that it is a recent model, by taking into account the most current features of the technological environment. Moreover, as stated before, the initial model (UTAUT) emerged from a synthesis of eight of the most used models in the research field on technology acceptance (Venkatesh et al., 2003), which gives robustness to this theoretical framework. UTAUT2 extended the original model into the explanation of acceptance and use of the technology in the specific consumer context (Venkatesh et al., 2012) and is, therefore, the most suitable model for the purpose of this study. Note, also, that the UTAUT2 brings substantial improvement of the variance explained concerning behavioral intention as well as technology usage compared to UTAUT (Venkatesh et al. 2012).

Consumer Intention to Use Online Gambling Services

Behavioral intention belongs to both UTAUT and UTAUT2 models. This construct evaluates the degree to which the user plans or intends to use the technology in the near future. In the literature this construct is an antecedent of usage behavior. The behavioral intention to use of a technology has a positive effect on use behavior of the technology. In this study, this construct indicates the degree to which a user intends to access a gambling online site in the near future and, therefore, using it for online gambling.

Performance Expectancy

Performance expectancy belongs to both UTAUT and UTAUT2 models. It reflects the degree to which the users believe that the use a particular technology enhance their performance in the execution of any task or project (Venkatesh et al., 2012). It includes factors such as perceived usefulness (TAM and C-TPB-TAM), extrinsic motivation (MM), job-fit, relative advantage (IDT), and outcome expectancies (SCT).

Online gambling gives players the ability to play 24 hours a day, 7 days a week, even from their own homes, workplaces, and public spaces (Humphreys & Perez, 2012).

The objective of this construct is to measure the level of performance that adopters associate to the use of a particular technology or service, which in this case is characterized by the use of online gambling sites. Thus, it is expected that performance expectancy influences directly and positively the behavioral intention of using online gambling services (Venkatesh et al., 2012).

H1: Performance expectancy has a positive effect on the consumer intention to use online gambling services.

Price Value

Price value refers to the cognitive exchange of consumers between the perceived benefits of the applications and the monetary cost to use them (Venkatesh et al., 2012). This construct captures the idea of perceived value, used on marketing research, which compares the price of products or services with their quality.

By opting for the online gambling, gamblers hope to achieve best "odds", more attractive promotions and the best bonuses/rewards, and reduce travel costs to a regular, offline casino. The retention of players becomes more difficult because the rapid growth of the online gambling industry makes it very difficult for the player to differentiate between the many available options. The price is argued to be a very strong factor (Eadington, 2004).

The aim of this construct is to measure the degree that online gamblers are willing to expend monetarily to use online gambling sites. As is the case in UTAUT2 (Venkatesh et al., 2012), it is expected that price value directly and positively influences the behavioral intention of using online gaming services.

H2: Price value has a positive effect on the consumer intention to use online gambling services.

Effort Expectancy

Effort expectancy is the perception of user regarding the easiness or difficulty of using a given technology (Venkatesh et al., 2012). It encompasses factors such as the perceived ease of use (TAM), complexity (MPCU), and ease of use (IDT).

The online gambling operators offer various secondary services in order to improve the game over the Internet or even make it easier to play and to promote its image among consumers (Humphreys & Perez, 2012).

The objective of this construct is to measure the degree of ease that the online gambler associates to the use of a particular technology or service. Thus, it is expected that the effort expectancy directly and positively influences the intention of using online gambling services.

H3: Effort expectancy has a positive effect on the consumer intention to use online gambling services.

Social Influence

Social influence is about the users' perception of how much the use of the technology can influence their social interaction with others, to the extent that it values and is influenced by the opinions of those individuals regarding the use of the technology (Venkatesh et al., 2012). It includes factors such as subjective norm (TRA, TPB, and C-TAM-TPB), social factors (MPCU), and image (IDT).

Sauer (2001) analyzes the presence of two types of groups in the society: those who support gambling, whose welfare would increase with a greater range of online products and games; and those who oppose this activity, whose value increases as more restrictions on online games are implemented.

Holtgraves (1988) states that the desire to play is rooted in a need to present a desired image to others. The player image is multifaceted. The game promotes extravagance and a "no trouble" image, which confers prestige. Even when he/she loses, the player can show "courage, integrity and composure."

Players evaluate their winners colleagues as more competent (i.e., insightful, skilled, responsible) than those who lose. The style when gambling also affects the perception of trust and control. Players who have continued to increase their bets were perceived as more confident and less controlled than those who bet the same amount every time (Blaszczynski & Nower 2007).

The incorporation of this construct in the study aims to analyze the degree of dependence of the individual before their counterparts, i. e. how he/she perceives what others think important when using online gambling sites. As in the case of UTAUT2 (Venkatesh et al., 2012), it is expected that social influence has a direct and positive effect on the behavioral intention of online gambling services.

H4: Social influence has a positive effect on the consumer intention to use online gambling services.

Facilitating Conditions

Facilitating conditions refer to the degree to which an individual believes that there is an organizational and technical infrastructure (e. g.: customer service) to support the use of technology (Venkatesh et al., 2012). It encompasses factors such as perceived behavioral control (TPB, C-TAM-TPB), facilitating conditions (MPCU), and compatibility (IDT).

Facilitating the environment that is available to each consumer may vary significantly among application providers, the generations of each technology, mobile devices, and so forth. A consumer who is provided a set of facilitating conditions to use a technology is more likely to have a greater intention to use that technology (Venkatesh et al., 2012). In addition, new information and communication technologies have provided consumers new secure and efficient forms of interaction with the Internet gambling operators. Online gambling sites are easy to use, cheap and prizes are paid immediately (Humphreys & Perez, 2012).

Customer support services are also relevant before, during and after a online gambling. According to Turban, Lee, King, Liang, and Turban (2010), customer service is a series of activities designed to increase the level of customer satisfaction, i. e., the feeling that a product or service has reached the customer expectation.

The objective of this construct is to measure the support and facilitating conditions online gamblers associate to the use of online gambling services. According to Venkatesh et al. (2012), it is expected that the facilitating conditions have a direct and positive impact on the intention to use of online gambling services.

H5: Facilitating conditions have a positive effect on the consumer intention to use online gambling services.

Hedonic Motivation

Hedonic motivations refer to the fun and/or pleasure provided to the user as a result of the use of a technology (Venkatesh et al., 2012). Brown and Venkatesh (2005) defined the hedonic motivation as the pleasure or happiness resulting from the use of a technology, which has a significant role in determining the adoption of new technologies in the consumer context.

In the case of online gambling, the aim of this construct is to measure the degree of pleasure and satisfaction through the use of gambling sites. Based on the UTAUT2 (Venkatesh et al., 2012), it is expected that hedonic motivations have a direct and positive effect on the intended use of online gambling services.

H6: Hedonic motivations have a positive effect on the consumer intention to use online gambling services.

Habit

Habit refers to the automatism created by learning something, which creates a preference for certain technology/tool (Venkatesh et al., 2012). There are two related but distinct constructs on technology use research: experience and habit. Experience can be defined as the passage of time from the initial

use of a target technology (Kim & Malhotra, 2005), and habit is conceptualized as a self-reported perception of the extent to which an individual believes the behavior to be automatic (Limayem, Hirt, & Cheung, 2007). Habit has achieved significant results with the formulation of UTAUT2, having both direct and indirect effects through behavioral intention (Venkatesh et al., 2012).

Ouellette and Wood (1998) found that the frequency of past behavior may be a good indicator of habit formation and is often referred to as habit.

The purpose of this measure is to measure the automatism created by previous learning in the use of gambling sites and thereby create a preference of use.

H7: The habit has a positive effect on the consumer intention to use online gambling services.

Perceived Risk

This construct does not incorporate UTAUT or UTAUT2 and was added to assess how online gamblers perceived risk emerges online. This construct is important in this study because, given the specificity of online gambling and gambling money online, it is important to understand how users perceive these risks.

Clearly, perceived risk is an important explanatory factor influencing consumer behavior (Mitchell, 1992; Dowling & Staelin, 1994; Eggert, 2006). Although there is no consensus, researchers identified six predominant dimensions of perceived risk: social, time/convenience, financial, physical, performance/functional and psychological (Stone & Grønhaug, 1993; Forsythe, Liu, Shannon, & Gardner, 2006).

This construct was based on Chen, Lee, and Wang's (2012) study, which provides evidence supporting the assertion that intangible factors of online games have significantly strong and direct effects on all the dimensions of perceived risk. Therefore, the intangibility of the electronic environment may be an important contributor to the perceived risk of online gamblers.

It is well accepted the fact that the probability theory applied to online gambling indicates that both economic return and general benefits always favor the house (Blaszczynski & Nower, 2007).

Holtgraves (1988) stated that the degree of risk may result either in attributing positive qualities (adventurous, confident, competitive and with a positive outlook) or negative qualities (impulsive, inconsistent and emotional) to gamblers. The main research function in gambling is to identify risk and protective factors that predispose some people to keep playing despite serious adverse consequences (Blaszczynski & Nower, 2007).

In this study, the aim of this construct is to measure the importance of the perceived risk that online gamblers associate to the use of online gambling sites. Given the existing literature, it is believed that the perceived risk may be a construct that directly and negatively influence the behavioral intention to use online gambling services.

H8: Perceived risk has a negative effect on the consumer intention to use online gambling services.

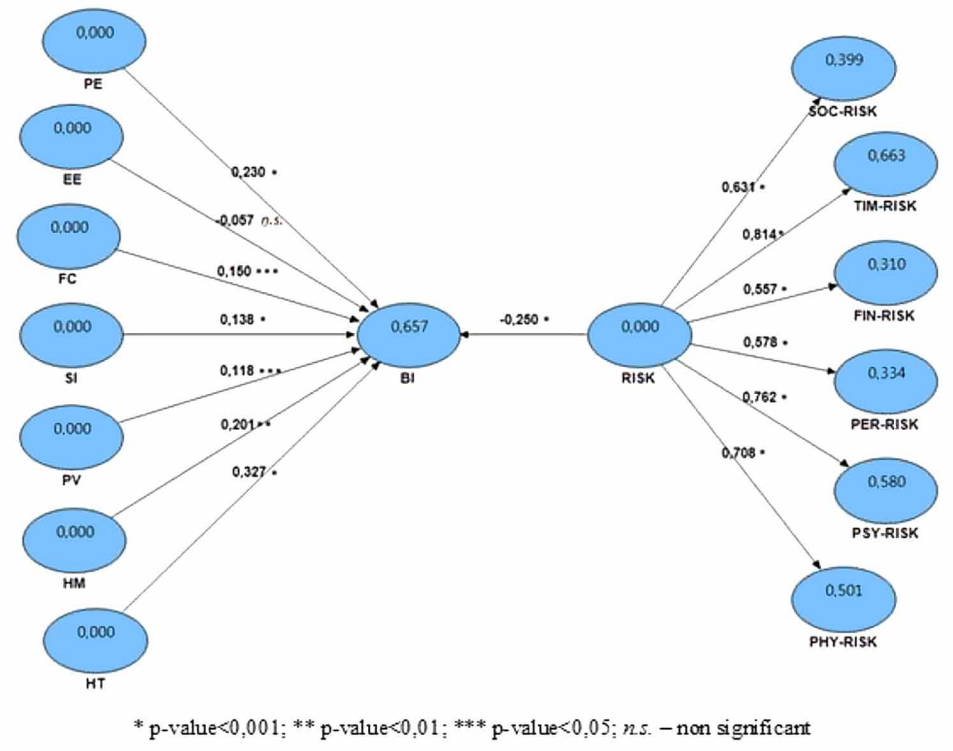
The proposed research model is presented in Figure 1.

METHODOLOGY

The target population of this study is based on Portuguese online gamblers. The empirical study was based on a nonrandom convenience sample of the target population. The choice for this sampling technique was based on the ease of contact, speed and low cost of data collection.

Data collection was conducted through an online questionnaire, consisting of scales adapted from other previously validated research: Venkatesh et al. (2012), regarding UTAUT2 constructs,

Figure 1. Structural model



and Chen et al. (2012), in the case of perceived risk. This former scale is a multi-dimensional one, assessing perceived risks in social, temporal, financial, physical, performance and psychological terms. All constructs were measured based on a 7-point Likert scale, anchored in "strongly disagree" and "strongly agree".

The questionnaire was subject to two pretests conducted among a convenience sample of 30 individuals each, in order to verify the dimensionality and reliability of the scales, the level of the comprehension of the questions by respondents, the response time, the data gathering mechanism, and to collect improvements suggestions. As a result of the pretests, some changes were made in the terminology of the scales in order to facilitate their understanding.

The final version of the questionnaire was made available online on Google Drive platform during one month and respondents were asked to fill it through email, social networks, and online gambling fora and websites.

The statistical data analysis was carried out using partial least squares structural equation modeling (PLS-SEM) with the SmartPLS 3.0 software. The use of this methodology is justified because it is highly efficient in the estimation of parameters, even in small samples, as well as in complex models, and does virtually no assumption about the distribution of data (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). Furthermore, this methodology is mainly used when the study is located at an early stage of theoretical development, which aims to test and validate an exploratory model, as is the case (Chin, 2010). PLS-SEM methodology has been widely used in studies about technology acceptance, e-commerce and e-services (e.g.: Andreev, Pliskin, & Rafaeli, 2012; Erturkoglu, Zhang, & Mao, 2015; Ghosh & Rao, 2014; Konradt, Held, Christophersen, & Nerdinger, 2012; Miranda, Rubio, Chamorro, & Loureiro, 2014; Nour, 2014).

RESULTS

The collected sample is composed of 212 individuals, mostly males (89.2%), with ages ranging from 25 to 34 years (62.3%), with university degree (49.1%), employed (58.5%) and living in the Centro region, Portugal (42.5%). Most respondents started to gamble online between 2009 and 2012 (41.5%), were aware of the online game through friends (43.8%), playing less than once a month (35.8%) and the highest stake in a day varies between € 10 and € 100 (42.5%).

The measurement model was evaluated in terms of reliability, convergent validity and discriminant validity. Table 1 presents the items loadings and t-values. t-values were obtained by bootstrapping techniques with 2000 iterations, indicating that all loadings are statistically significant at the 0.1% statistical level ($\left|\text{t-values}\right| \geq 3.291$). With the exception of PE2, PE3, EE1 and FC3, all other items have higher loadings than the minimum recommended threshold of 0.7 (Götz, Liehr-Gobbers, & Krafft, 2010). We decided not to eliminate those items because they are very close the cut-off point. Results support the reliability of the measurement indicators.

Table 2 describes the average variance extracted (AVE), the composite reliability (CR) and the correlations of each latent variable. CR values are higher than the minimum threshold of 0.6 (Götz et al., 2010), indicating that all constructs have adequate internal consistency. Moreover, the AVE of each construct is greater than the expected minimum threshold of 0.5 (Götz et al., 2010), which ensures its convergent validity. Finally, discriminant validity was obtained for each construct, as the square root of the AVE is greater than all correlations (module) of the other constructs. Furthermore, according to Table 1, cross-loadings are lower than loadings on all the metrics, which reinforces the discriminant validity (Götz et al., 2010).

The structural model shown in Figure 1 was evaluated by the sign, magnitude and statistical significance of the structural relations parameters, as well as by the explained variance (R^2) of the endogenous latent variables (Götz et al., 2010). With the exception of effort expectancy and behavioral intention, all structural relationships have parameters with (positive) compatible signal with the assumptions made in the research model, ranging between 0.118 and 0.327 (module), and are statistically significant at the 5% level (FC→BI; PV→BI), 1% level (HM→BI) e 0.1% (all remaining hypotheses), which allows us to confirm all hypotheses, but H3. The results indicate that the variation in behavioral intention is explained in 65.7% by the variation of the eight independent variables of the model, with habit, perceived risk, performance expectation and hedonic motivation being the strongest ones with loading above 0.200. The R^2 of behavioral intention might be considered as moderate (Chin, 1998).

Comparing the R^2 of the proposed model with those obtained with an alternative model based only on the UTAUT2 constructs, we can conclude that the inclusion of perceived risk in the structural model conducts to an increase of R^2 from 60.5% to 65.7%.

Finally, through the effect size f^2, the change in R^2 can be explored to see whether the impact of a particular independent latent variable on a dependent latent variable has substantive impact (Götz et al., 2010). Values for f^2 of 0.02, 0.15, and 0.35 can be viewed as an indicator of a small, medium, or large effect of the predictor latent variable on the particular latent endogenous variable (Chin, 2010; Götz et al., 2010). The results shown in table 3 evidence that performance expectancy and social influence have effects on behavioral intention that are statistically significant at the 10% level. These effects can be qualified as small. On the other hand, perceived risk and habit have significant effects on behavioral intention at 5% and 1% levels, respectively. Both can be considered as medium effects. The effects of effort expectancy, facility conditions, price value, and hedonic motivation on behavioral intention are not substantive.

Table 1. Loadings and cross-loadings

Scale items	t-values	Loadings	Cross-loadings
PE1	43.251	0.895	[0.003; 0.689]
PE2	8.320	0.657	[0.020; 0.507]
PE3	6.536	0.626	[0.036; 0.443]
EE1	7.294	0.655	[0.003; 0.414]
EE2	38.552	0.859	[0.002; 0.644]
EE3	32.116	0.861	[0.025; 0.649]
EE4	10.838	0.691	[0.032; 0.474]
FC1	41.064	0.871	[0.022; 0.666]
FC2	23.738	0.808	[0.018; 0.545]
FC3	10.356	0.650	[0.009; 0.416]
FC4	24.110	0.797	[0.006; 0.634]
SI1	48.295	0.897	[0.001; 0.372]
SI2	25.401	0.850	[0.076; 0.301]
SI3	53.270	0.901	[0.030; 0.447]
PV1	12.770	0.729	[0.024; 0.551]
PV2	44.996	0.877	[0.019; 0.650]
PV3	13.984	0.738	[0.020; 0.551]
HM1	21.231	0.807	[0.002; 0.402]
HM2	95.723	0.916	[0.000; 0.643]
HM3	35.371	0.865	[0.040; 0.487]
HT1	67.915	0.923	[0.148; 0.622]
HT2	18.955	0.797	[0.010; 0.374]
HT3	25.198	0.863	[0.018; 0.405]
SOC-RISK1	26.674	0.852	[0.003; 0.482]
SOC-RISK2	43.545	0.854	[0.025; 0.612]
SOC-RISK3	18.191	0.786	[0.004; 0.459]
TIM-RISK1	47.557	0.878	[0.003; 0.741]
TIM-RISK2	84.608	0.925	[0.003; 0.760]
TIM-RISK3	17.617	0.752	[0.044; 0.568]
FIN-RISK1	21.231	0.773	[0.003; 0.468]
FIN-RISK2	60.200	0.905	[0.009; 0.508]
FIN-RISK3	24.310	0.841	[0.051; 0.422]
PER-RISK1	25.479	0.814	[0.002; 0.513]
PER-RISK2	25.489	0.808	[0.084; 0.453]
PER-RISK3	40.587	0.872	[0.029; 0.469]
PSY-RISK1	41.904	0.860	[0.007; 0.667]
PSY-RISK2	30.881	0.815	[0.026; 0.631]
PSY-RISK3	37.890	0.867	[0.010; 0.637]
PHY-RISK1	41.835	0.899	[0.007; 0.581]
PHY-RISK2	112.022	0.933	[0.004; 0.706]
BI1	58.609	0.898	[0.024; 0.575]
BI2	58.082	0.893	[0.001; 0.554]
BI3	104.419	0.935	[0.010; 0.635]

DISCUSSION OF RESULTS AND CONCLUSIONS

Discussion of Results

The main purpose of this study was to prepare and test a conceptual model of the determinants of the consumer intention to use online gambling services. This research sought to fill a gap in the literature by increasing knowledge in an area that has plenty to evolve.

Table 2. Average variance extracted, composite reliability and correlations between latent variables

	AVE	CR	Correlations													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. PE	0.541	0.775	**0.736**													
2. EE	0.597	0.854	0.640	**0.772**												
3. FC	0.617	0.864	0.641	0.701	**0.785**											
4. SI	0.779	0.914	0.285	0.193	0.192	**0.883**										
5. PV	0.615	0.826	0.664	0.652	0.711	0.320	**0.784**									
6. HM	0.746	0.898	0.562	0.608	0.514	0.293	0.596	**0.864**								
7. HT	0.744	0.897	0.375	0.196	0.251	0.406	0.326	0.352	**0.862**							
8. SOC-RISK	0.691	0.870	-0.061	-0.122	-0.063	0.183	-0.068	-0.074	0.376	**0.831**						
9. TIM-RISK	0.731	0.890	-0.007	0.049	-0.008	0.059	-0.005	0.107	0.246	0.436	**0.855**					
10. FIN-RISK	0.708	0.879	0.038	0.149	0.044	-0.177	-0.015	0.110	-0.084	0.136	0.366	**0.842**				
11. PER-RISK	0.692	0.871	0.080	0.146	0.076	0.129	0.067	0.115	0.233	0.256	0.316	0.283	**0.832**			
12. PSY-RISK	0.718	0.884	-0.092	-0.043	-0.070	0.094	-0.013	-0.008	0.284	0.327	0.477	0.282	0.250	**0.847**		
13. PHY-RISK	0.840	0.913	-0.027	0.022	-0.042	0.048	-0.036	0.006	0.268	0.416	0.567	0.309	0.388	0.446	**0.917**	
14. BI	0.826	0.934	0.648	0.475	0.558	0.429	0.615	0.582	0.522	-0.026	-0.141	-0.200	0.046	-0.178	0.008	**0.909**

Note: values of the diagonal are the square root of AVE.

Table 3. Effect size f^2

	f^2	t-values	p-values
PE → BI	0.065	1.686	0.092
EE → BI	0.004	0.336	0.737
FC → BI	0.025	0.943	0.346
SI → BI	0.044	1.704	0.088
PV → BI	0.015	0.861	0.389
HM → BI	0.061	1.477	0.140
HT → BI	0.197	2.614	0.009
RISK → BI	0.154	2.420	0.016

With the results one can conclude, on the same path of Venkatesh et al. (2012), that Portuguese users consider the following factors as relevant to explain the behavioral intention to use online gambling services:

- Performance expectancy of online gambling websites (β=0.230; p-value<0.001) , which include perceived usefulness, extrinsic motivation, relative advantage, and outcome expectancies;
- Social influence (β=0.138; p-value<0.001) , which includes subjective norm, social factors, and the image associated with the online gambling. The model demonstrates the importance of word-of-mouth and the various third-party opinions to the behavioral intention to use online gambling websites;

- Facilitating conditions (β=0.150; p-value<0.05) , which encompasses perceived behavioral control and compatibility, depending on the existence of an organizational and technical infrastructure (e.g. customer services) to support the use of the system/technology;
- Hedonic motivations (β=0.201; p-value<0.01) , which result from the fun and pleasure provided to the user through online gambling;
- Price value (β=0.118; p-value<0.05) , i.e. the balance between the perceived benefits of the applications and the monetary cost to use them. When choosing to gamble online the user expects to achieve the best "odds", more attractive promotions and best prizes/rewards, and reduce travel costs to a traditional offline casino;
- Habit (β=0.327; p-value<0.001) , which refers to the automatism created by learning something, which helps to create a preference for using online gambling sites.

The results also stress that perceived risk (measured in social, time, financial, physical, performance and psychological risk) has a negative influence on the behavioral intention to use online gambling websites (β=-0.250; p-value<0,001) . This corroborates Forsythe et al.'s (2006) findings, stressing that the notion of risk, measured in widely terms, behaves has an inhibitor of the intention to use online gambling sites

According to this study, effort expectancy has no statistically significance amongst Portuguese online gamblers, unlike with what was predicted by Venkatesh et al. (2012). This may be due to the fact that the majority of respondents were online players with some experience and, as such, they consider that online gambling websites are relatively easy to use. However, this ease of use is not a website differentiation factor, but a necessary condition which may not influence the higher or lower likelihood of gamblers to revisit the play again.

CONCLUSION

From an academic point of view, this article aims to help bridge the existing gap of almost no studies explaining the behavior intention of using of online gambling sites. It may be pioneer in applying the UTAUT2 model to the world of online gambling, as well as to add explanatory power to this model by including the perceived risk in a multidimensional perspective. We should note that the inclusion of perceived risk on the framework of UTAUT2 resulted in an increase of 5.2% in the explained variance of behavioral intention.

The study is important to the business community, as it unleashes what online gamblers value, as such it provides companies with information on attracting and retaining more online players. With these results, organizations may identify the factors that positively contribute to the behavioral intention of using online gambling sites as well as identifying risk factors. These factors should be worked by online gambling sites in order to provide a better, long-lasting and profitable service to users. As such, online gambling sites could incorporate in their strategy and management practices the following principles: raise the performance expectations of gamblers, highlighting, for example, the value of the prizes that the user can win in each game, or the amount of prizes already distributed; increase the social awareness of the online gambling sites, reinforcing marketing communication, through advertising, public relations, or sponsorship campaigns; improve facilitating conditions, such as customer service, or increasing the compatibility of the gambling platforms with different web browsers and mobile devices (tablets and smartphones); develop gambling platforms that increase the feelings of pleasure, arousal, and entertainment; design a pricing strategy that sustains the gamblers' perception of a good compromise between the prices of the bets and the amount of the prizes; reinforce strategies that turn online gambling as a habit of many users (the release of mobile apps could be an interesting strategy to increase gambling time, gambling experience, and therefore gambling habit); implement strategies that contribute to the mitigation of risk perception by the gamblers, such as secure payment technologies, privacy policies, or certification by third parties.

Limitations and Suggestions for Future Study

Being an exploratory study in an area with little presence in the literature, this model has potential to be further developed and improved based on the experience and results obtained. The results here presented only provide a static "picture" of a given time, i.e., their validity may change depending on the constant social change.

As in all analysis of data collected based on questionnaires, it is important to bear in mind that even if all the conditions are quite acceptable for an exploratory study of this nature, the interpretation and appropriateness of the questions may not have been equally perceived by all respondents.

The main limitation of the study is related to the sample size (n = 212), with its gender bias (the lack of a more robust feminine representation) and lack of stratified regional representation of Portugal.

To increase knowledge about the online gambling phenomenon and its consequences it is necessary to produce more scientific research in more diversified contexts. Based on this, a few suggestions for future studies are provided: the empirical validation of the research model with a larger, more representative sample; the use of the model in an international context to analyze the differences between the Portuguese online players and those of other countries; the inclusion of more determinants to the model, such as trust, security and privacy; the comparison between online and offline game determinants.

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