Association for Information Systems
AIS Electronic Library (AISeL)

AMCIS 2008 Proceedings

Americas Conference on Information Systems (AMCIS)

2008

Factors Influencing Intention to Gamble Online

Chang Boon Patrick Lee
University of Macau, cblee@umac.mo

Lin Hammer Xia
University of Macau, hammerx1@umac.mo

Factors Influencing Intention to Gamble Online

Chang Boon Patrick Lee
Faculty of Business Administration,
University of Macau
cblee@umac.mo

Lin Hammer Xia
Faculty of Business Administration,
University of Macau
hammerxl@umac.mo

ABSTRACT

The objective of this research was to validate a model on online gambling intention. Given that there are many forms of online gambling, this research focused on sports betting. We adopted the Technology Acceptance Model (TAM) as our research model. Additionally, we included subjective norm as an antecedent to online gambling intention. We tested the model using data collected from a questionnaire survey. We collected 212 returns from students in a Chinese tertiary institution. The results provide support for the six hypotheses proposed in our research. We discussed the implications of the results for industry practitioners and gambling counselors.

Keywords

Online gambling, Technology Acceptance Model, Subjective norm.

INTRODUCTION

The gambling industry has experienced tremendous growth over the last decade (Global Betting and Gaming Consultants, 2002). In particular, the Internet gambling market is evolving. According to Fox (2005), the development of online gambling has been dramatic; the number of gambling sites increased from 50 in 1998 to about 2,500 in 2004. Even though it is difficult to put a precise value to the Internet gambling industry, Shaker (2007) estimated that the worldwide market was around US$15 billion in 2006. The Asian and European markets are expected to grow as broadband Internet connects more cities and villages to the network. The size of the gambling market is likely to increase because people nowadays consider gambling a popular recreational activity (Australian Institute for Gambling research, 1999). Researchers have speculated that attempts by governments to prohibit online gambling are likely to be futile in the long run (Eadington, 2004).

Given the tremendous potential of the Internet gambling market, the objective of this research was to validate a model on factors related to intention to gamble online. This study focused on one form of online gambling – namely, sports betting. There is little research in this area and most of the relevant studies are conducted in a western setting. This research was aimed at helping to validate a model to understand the factors that influence adoption of online betting in the Chinese context. As online betting involves the use of information technology (IT), we drew upon prior research on technology acceptance to help us in our study. Knowing the factors that influence online betting is useful to industry practitioners who wish to promote online gambling. On the other hand, it should also help to equip counselors with knowledge on how to advice potential gamblers to avoid or quit gambling or gambling addition.

This paper is organized as follows. The next section reviews prior research on online gambling and the literature on technology acceptance. Following that, we present the model for our research. We then describe the research method and the procedures to collect the data for this study. This is followed by the results of data analysis. We conclude with the implications of our findings and the study's limitations.

LITERATURE REVIEW

Prior research has noted that there exist few studies on Internet gambling (Wood *et al.*, 2007). To date, the research in this area has centered on the prevalence of Internet gambling and the characteristics of Internet gamblers. One recent study conducted by Peter D Hart Research Associates in 2005 found that online gambling was an emerging phenomenon (The American Gaming Association, 2006). Among the 552 Internet gamblers polled in the study, 70 percent had started online gambling less than two years ago. About 68 percent of the online gamblers were males and nearly 70 percent were under the age of 40. Sixty-one percent had at least a college degree, and more than one-quarter had at least some post-graduate education. The survey found that the most important reason why respondents gambled online was because it was convenient, easy, and always available.

Wood *et al.* (2007) has also investigated why Internet gamblers preferred online to land-based venues. Based on a sample of 1,920 responses from Internet gamblers, the study found that the primary reasons for gambling online were (a) the relative convenience, comfort, and ease of Internet gambling; (b) an aversion to the atmosphere and clientele of land-based venues; (c) a preference for the pace and nature of online game-play; and (d) the potential for higher wins and lower overall expenditures when gambling online. The respondents for the study comprised 56 percent males, and this led the researchers to speculate that Internet gambling is becoming less of a gendered phenomenon.

Prior studies have provided useful insights into Internet gambling. To extend the work developed in earlier research, we used a theoretical framework to guide our study. In this research, we used the Technology Acceptance Model (TAM) to determine the factors that influence intention to gamble online.

Technology Acceptance Model

The TAM (Davis, 1989) is one of the most influential research models in studies on IT acceptance. According to the TAM, an individual's intention to use technology, which is often used as the proxy for the usage of IT, is determined by attitude. Attitude, in turn, is determined by two beliefs: perceived usefulness and perceived ease of use. Perceived usefulness is defined as "the degree to which a person believes that using a particular system would enhance job performance" while perceived ease of use is defined as "the degree to which a person believes using a particular system would be free of physical and mental efforts". The TAM also posits that perceived ease of use influence perceived usefulness because the easier it is to use the technology, the more useful it can be.

Empirical studies have shown that TAM is a parsimonious and robust model (Venkatesh *et al.*, 2003). In their meta-analysis of studies using the TAM, Legis *et al.* (2003) found that the model consistently explained more than 40 percent of systems use. While acknowledging that the TAM is useful, they said that the model could be integrated into a broader model so as to increase its explanatory power. Many studies have extended the TAM. For example, a number has included subjective norm as another antecedent of adoption intention. Subjective norm is a key construct used in the Theory of Reasoned Action (TRA). Subjective norm refers to "a person's perception that most people who are important to him think he should or should not perform the behavior in question" (Fishbein and Ajzen 1975, p. 302). With regard to the use subjective norms in TAM-related studies, the results obtained were mixed. Mathieson (1991) and Davis *et al.* (1989) found no significant effect of subjective norm on usage intention, whereas Taylor and Todd (1995) did. Hartwick and Barki (1994) found that subjective norm has an effect on usage intention in mandatory settings but not in voluntary settings. Venkatesh and Davis (2000) showed that experience and voluntariness moderate the effect of subjective norm on usage intention. Based on the results of prior research, the efficacy of subjective norm appears to be mixed.

RESEARCH MODEL AND HYPOTHESES

Figure 1 shows the research model. We adopted TAM in our research and we have added subjective norm as an antecedent to online gambling intention. In the model shown in the figure, there are 5 constructs and 6 hypotheses. We note that although there could be other variables that may influence online gambling, our intention was to test a parsimonious model. We are aware that in the case of adoption of hedonic technologies such as those used for the leisure environment, perceived enjoyment is an important factor influencing adoption (Van der Heijden, 2004). We did not include perceived enjoyment because online betters are likely to use betting websites mainly because they are convenient and the players bet to win, rather than to enjoy.

Online Gambling Intention

Online gambling can be divided into two major categories. One is software-generated gambling games such as online poker, slot machine, black-jack, etc. The other is online betting on sports and other games (Griffiths, 2003). Online betting is used to place bets on a variety of sporting events such as horse and car racing, football and basketball matches. We note the different types of online gambling because each may have different antecedents. In this study, we narrowed the focus of online gambling to sports betting.

We use online gambling intention as a proxy for actual behavior. Numerous studies have reported a strong and significant causal link between behavioral intention and targeted behavior (Sheppard *et al.*, 1988; Venkatesh and Davis, 2000). As online betting is an evolving activity, using behavioral intention to study actual online gambling behavior is theoretically valid.
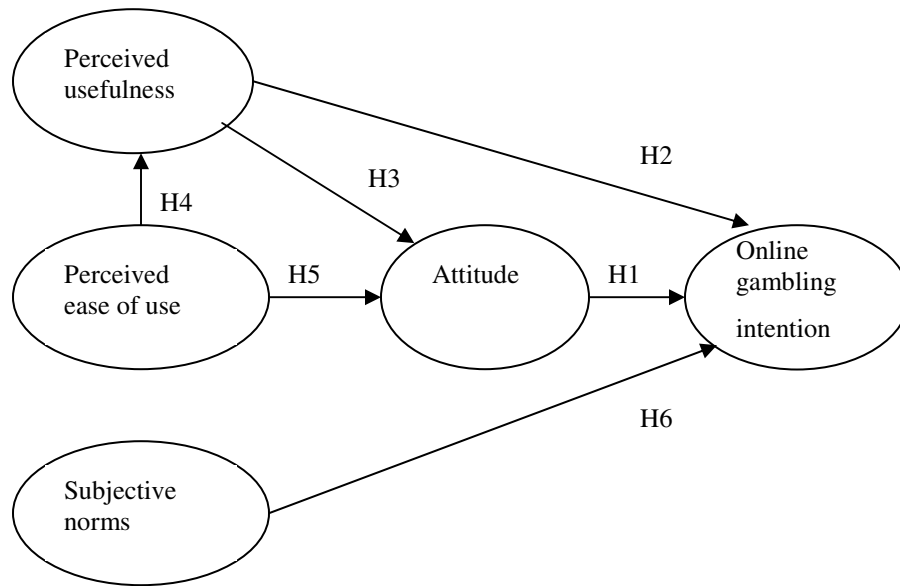
Figure 1: Research model

The TAM and Online Gambling

Numerous studies have validated the TAM in various contexts. The TAM can also be applied to the online gambling context as it involves the use of a computer system in the Internet environment. Based on the TAM, there are three variables that have direct and/or indirect effects on the intention to gamble online. These are attitude, perceived usefulness, and perceived ease of use. Attitude refers to people's feeling – whether good or bad, positive or negative, favorable or unfavorable – towards online gambling. Attitude shapes intention and when people have positive attitude towards a particular behavior, they are likely to form the intention to perform the behavior. The positive relationship between attitude and intention has been validated in a broad range of studies, such as those related to e-purchasing (Teo and Liu, 2007), playing online games (Hsu and Lu, 2004), using software applications (Davis, 1989), and others. The relationship may similarly be applied to the context of online gambling. Hence, the following hypothesis will be tested in this study:

H1: Attitude towards online gambling is positively related to intention gamble online

We define perceived usefulness as the existence of advantages perceived by the gamblers when gambling online. These advantages include fulfilling the objective of gambling and accomplishing the objective quickly. A technology or innovation that is high in perceived usefulness will help to develop positive attitudes in the users. It will also have a positive influence on people's intention to use the technology. Prior empirical research has provided support for the relationship between perceived usefulness and attitude as well as the relationship between perceived usefulness and intention (Davis *et al.*, 1989; Taylor and Todd, 1995). In the case of online betting, if gamblers find it useful or convenient to use it, then they may develop positive attitude towards it and they may have higher intention to use it. The relationship between perceived usefulness and behavorial intention has been supported in the context of using gambling technology (Nisbet, 2006). We hypothesized, therefore, the following TAM relationships in the context of online gambling:

H2: Perceived usefulness is positively related to intention

H3: Perceived usefulness is positively related to attitude

Perceived ease of use is defined as how easy it is to learn to use the technology to accomplish online gambling and how easy it is to be skilful in it. Rather than having a direct effect on intention, perceived ease of use influences intention primarily through its effect on perceived usefulness and attitude (Davis et al, 1989). Empirical research has supported the mediating effects of perceived usefulness and attitude in the relationship between perceived ease of use and intention (Hsu and Lu,

2004; Gefen and Straub, 2000). If the computer interface to gamble online is simple, easy to use, and does not require lots of skills, then it would be deemed more useful and users will have more positive attitude in using it. Conversely, if the interface is difficult to use and requires lots of skills, then it is less useful and users will develop negative attitude in using it. Based on the above discussion, therefore, the following hypotheses will be tested:

H4: Perceived ease of use is positively related to perceived usefulness

H5: Perceived ease of use is positively related to attitude

Subjective Norm

As noted earlier, prior research has extended the TAM to include subjective norm, but the results were mixed. Nevertheless, we believe subjective norm is an antecedent to online gambling intention because of a number of reasons. First, several studies have reported that people in cultures exhibiting strong collectivism tend to emphasize the importance of subjective norm when making decisions (Lee and Green, 1991; Peace et al., 2003; Choi and Feistfeld, 2004). That is, people in collectivist culture are influenced by others in what they do whereas people in individualistic culture are less likely to be influenced by others. As the current research focuses on a Chinese population, which has a collectivist culture (Hofstede and Bond, 1984), we believe that subjective norm would have an influence on online gambling intention. Second, people who intend to use online gambling have limited experience in using it because it is relatively new. They are likely to look to their social environment for evaluative information and cues. In this connection, we note that Gefen *et al.* (2003) have explained that the effects of subjective norm on intention are likely to be greater in the earlier stages of innovation when there is absence of experiential data. The third reason for the importance of subjective norm is that prior research has shown that social influence exists in gambling behavior (Hardoon and Derevensky, 2001). Family members often influence each other, and parents often serve as role models for gambling. There is evidence that 20 to 25 percent of adult gambler's children gamble (Lesieur and Klein, 1987; Lorenz and Shuttleworth, 1983). Subjective norm, therefore, may also influence online betting. Given the above reasons, we included the effect of subjective norm in our model:

H6: Subjective norm is positively related to intention

RESEARCH METHOD

This research used a questionnaire survey to collect data to test the research model. The survey sample comprised students of a tertiary institution in Macao. We used students for the research because of two reasons. First, they are accessible to the researchers. Second, they are potential online gamblers who are often the targets of many online gambling companies (Galloni, 2001). Statistics indicate that people who gamble online are becoming younger. According to a 2001 market research conducted by NetValue Ltd in Hong Kong, about 43 percent of online gambling visitors were students (Bolande, 2001). In America, Weldon (2006) has also reported that young college students who are familiar with Internet and have 24-hour Internet access and easy credit are the biggest customer group for Internet gambling. According to Weldon (2006), over 1.6 million American college students gambled online in 2005.

Measurement of Constructs

The instruments used to measure the constructs in the research model were adopted from prior studies. They are established instruments and prior studies have shown that they possess high reliabilities. Some modifications were made to the wordings of the items to tailor them to the online gambling context. All the items used a 7-point scale, with '1' measuring 'strongly disagree' to '7' measuring 'strongly agree'. The questionnaire was originally in English. It was translated into Chinese to assist those who understood Chinese better. The translation equivalence was checked by using back translation. The initial questionnaire was pre-tested with a group of ten people – four graduate students, four undergraduates, and two university lecturers. They were asked to evaluate whether the items fully represented the proposed constructs and whether there were any ambiguity. Their feedback resulted in minor revisions to the questionnaire items. Appendix 1 presents the items used in the questionnaire to represent the constructs in the proposed model.

Survey Process

As the students might not know about online gambling, a demonstration was provided by the second author before the respondents answered the questionnaire. The www.macau-slot.com website was used for this purpose. Macau-slot.com is the first legal online football and basketball betting web site in Asia (Geige, 2006). According to a survey conducted in 2005, an average user of gambling websites spent about 195 minutes a month on Macau-slot.com compared to 42 minutes on other gambling sites (Bolande, 2001).

The demonstration included explanations about the purpose of the research and what Internet users could do at the Macau-slot website. As the site allows only registered users to place bets, the researcher showed the students how they could go about the registration process. The respondents were told they have to provide data such as name, identification number, bank account or credit card number, telephone, and email address. The researcher then used a registered user name to log into the website. After the login process, the researcher showed the site map of the index page. The map includes links to betting choices (football and basketball), odds, and historical information. He then chose a football match and placed a $10 bet. The students were informed about the payout if the researcher won and when the payment would be made. After the demonstration, the students were given the opportunity to ask questions. They were then requested to complete the questionnaire. The questionnaire included a cover letter that assured confidentiality of the data collected.

RESULTS

Respondents

A total of 241 questionnaires were distributed and the researchers collected 231 returns. The response rate, therefore, was 95.85 percent. Among the questionnaires collected, 19 were invalid – some were incomplete, some had multiple answers and some had the same score throughout. Thus, 212 valid returns were used in this research. Table 1 shows the respondent profile. The table shows that among the respondents, 45 percent were males and 6 percent had online gambling experience.

Data analysis

The data were first analyzed using factor analysis. Factor analysis groups similar items together, and in doing so, helps to assess the validity of items for the constructs. Table 2 presents the results of the factor analysis. As shown in the table, every item loaded into a construct and the loadings were larger than 0.71. One item for perceived usefulness (PU1), however, loaded under perceived ease of use instead of perceived usefulness. The item for PU1 reads, "Macau Slot makes gambling easier". This item was adopted from Davis (1989). The original statement for this item was "To use *chart-master* will make it easier to do my job" (Davis, 1989). The modified item for PU1 captured the respondents' perceptions of ease of use, instead of usefulness. PU1, therefore, was reclassified as perceived ease of use.

Table 3 shows the descriptive statistics. Bearing in mind that all the constructs were measured based on a scale from 1 to 7, the table shows that respondents have a low level of intention to gamble online (mean = 2.97). Subjective norm and perceived usefulness are also low, at 3.167 and 3.866 respectively. Attitude towards online gambling is about neutral – its value is 4.003. Perceived ease of use is 5.086. The values for the Cronbach Alpha are all above the acceptance level of 0.7 recommended by Nunnally (1981).

Table 3 also shows that all the constructs are significantly correlated with one another. Gauch (2000) classifies correlation that is equal or higher than 0.5 as strong, between 0.3 and 0.5 as moderate, and those below 0.3 as weak. Based on Gauch's (2000) criteria, online gambling intention has strong positive correlations with perceived usefulness (0.508), attitude (0.557) and subjective norm (0.548).

Model testing results

The research model was tested using structural equation modeling. We used AMOS version 6 software to conduct the analysis. We estimated the measurement model that specifies the links between the latent and manifest variables. Six types of fit measures were used to determine the model's overall goodness-of-fit: the Chi-square/degree of freedom, goodness of fit index (GFI), adjusted goodness of fit index (AGFI), norm fit index (NFI), comparative fit index (CFI), and the root mean square error of approximation (RMSEA). Table 4 shows the results. As shown in the table, all the model-fit indices are within the acceptance level.

To assess the validity of the measures, Bollen (1989) suggested examining the factor loadings and the squared multiple correlations (SMR) between the items and the constructs. The values for the factor loadings and the SMR are shown in Table 5. All the factor loadings are significant. The variances extracted are above 0.5, and hence, as suggested by Hair *et al.* (1998), the model constructs are deemed reliable.

Table 4 also shows the overall fit of the structural model. All the values for the model-fit indices are within their respective acceptance levels. Hence, the structural model fits the data. Figure 2 shows the results of the standardized estimates for the structural model. All the parameters are significant and they are in the expected direction. Thus, all the hypotheses are supported.

DISCUSSION AND CONCLUSION

The results of the study show that the TAM can be applied to the context of online gambling. The results are consistent with those of prior research that support the use of the TAM (Davis, 1989; Mathieson, 1991). The results also show that subjective norm is an antecedent to online gambling intention. Thus, this study supports the importance of subjective norm. This result is in line with our expectations, given that subjective norm has been considered a salient variable in the Chinese culture due to its orientation towards collectivism. The results derived from this research have implications for both theory and practice.

In terms of theory, we note that even though the TAM and subjective norm provide compelling explanations for online gambling intention, the amount of variance accounted was 38 percent (see results in Figure 2). Future research could explore and determine if there were other variables that could help to explain online gambling intention. For example, it may be possible that trust in gambling websites, perceived risks of online gambling, and other variables mentioned in the literature (see for example, Venkatesh at al. (2003)) could provide additional explanatory power. Furthermore, future research could replicate this research across samples with different nationalities to determine the validity of the model.

In terms of practice, industry practitioners could make use of the results obtained in this research to help them improve their online gambling business. The results in this research indicate that attitude, perceived usefulness, perceived ease of use, and subjective norm can help directly or indirectly to increase online gambling intention, which is a proxy for online gambling. Bearing in mind these results, online gambling vendors can manipulate the relevant variables in order to attract people to gamble online. For example, they can invest in their websites to ensure that they are perceived as useful and easy to use.

On the other hand, the results of this research are also useful to those whose job is to counsel and advise people not to engage in Internet gambling. Knowing that subjective norm plays a significant role in influencing online gambling, gambling counselors can gather opinion leaders to disseminate information regarding the negative aspects of gambling. They can also help gambling addicts by seeking involvement from people who are important to the addicts or those that can influence the addicts' behavior.

In summary, the contribution of this research is that TAM can be applied to the context of online gambling and that subjective norm is also an antecedent to online gambling intention. The results reaffirmed the validity of TAM and support the importance of subjective norm. We also note, however, there are two limitations with regard to this research. One is that this study used a convenient sample and therefore it may lead to a sample bias. With respect to this limitation, we have indicated that industry reports have found university students constitute a high percentage of online gamblers and that they are often the targeted customers among online gambling companies. Thus, even though our sample may not be representative of the online gambling population, it focused on a major segment of the market. Another limitation of this research is that the respondents might have provided "socially desirable" answers. They might not have provided honest answers because they did not want to be labeled as people who might engage in online gambling in the future. The researchers have tried to overcome this limitation by assuring respondents that their responses are confidential. To overcome the limitations encountered in this research, we suggest that future studies consider using different research samples and methods to further examine online gambling adoption.

Gender	
Male	96 (45.3%)
Female	116 (54.7%)
Place of residence	
Macao	158 (74.5%)
PR China	54 (25.5%)
Online gambling experience	
Yes	12 (5.7%)
No	200 (94.3%)
Education	
Undergraduate	183 (86.3%)
Graduate	29 (13.7%)

Table 1. Respondent Profile (N=212)

	Component				
	1	2	3	4	5
PEOU1	.910	.074	.078	.092	.135
PEOU3	.906	.064	.070	.127	.168
PEOU2	.904	.096	.046	.100	.099
PU1	.732	.122	.170	.195	.073
INT3	.123	.888	.231	.189	.164
INT1	.127	.866	.197	.204	.145
INT2	.092	.851	.260	.248	.151
SN2	.114	.224	.876	.166	.159
SN1	.092	.235	.859	.189	.119
SN3	.138	.220	.765	.281	.221
ATU2	.176	.251	.167	.818	.225
ATU1	.255	.178	.203	.810	.097
ATU3	.090	.253	.304	.715	.224
PU3	.237	.222	.189	.225	.855
PU2	.232	.224	.306	.272	.787

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 5 iterations

Table 2. Results of Factor Analysis

Factors	Mean	Std. Deviation	Alpha	INT	PU	PEOU	ATT
INT	2.972	1.739	0.937				
PU	3.866	1.555	0.896	0.508			
PEOU	5.086	1.193	0.915	0.286	0.439		
ATT	4.003	1.468	0.857	0.557	0.582	0.394	
SN	3.167	1.392	0.900	0.548	0.542	0.294	0.564

All correlations are significant at p< 0.001 (2-tailed).

Table 3. Descriptive statistics

Fit index	Recommended Value	Measurement Model	Structural Model
Chi-square/df	<=3	1.362	2.248
GFI	>=0.90	0.939	0.903
AGFI	>=0.80	0.909	0.860
NFI	>=0.90	0.958	0.929
CFI	>=0.90	0.988	0.959
RMSEA	<=0.07	0.041	0.077

Table 4: Overall fit for the measurement and structural models

Construct	Item	Factor loading*	SMC	Composite Reliability	Variance Extracted
Intention	Int1	0.877	0.774	0.941	0.841
	Int2	0.916	0.846		
	Int3	0.949	0.903		
Attitude	Att1	0.798	0.624	0.858	0.668
	Att2	0.878	0.757		
	Att3	0.785	0.624		
Perceived Usefulness	PU2	0.943	0.884	0.896	0.812
	PU3	0.862	0.740		
Perceive Ease of Use	PEU1	0.910	0.311	0.837	0.574
	PEU2	0.898	0.344		
	PEU3	0.930	0.260		
	PU1	0.679	0.788		
Subjective Norms	SN1	0.875	0.757	0.904	0.759
	SN2	0.915	0.846		
	SN3	0.818	0.672		

*All are significant at p<0.001

Table 5. Construct reliability analysis
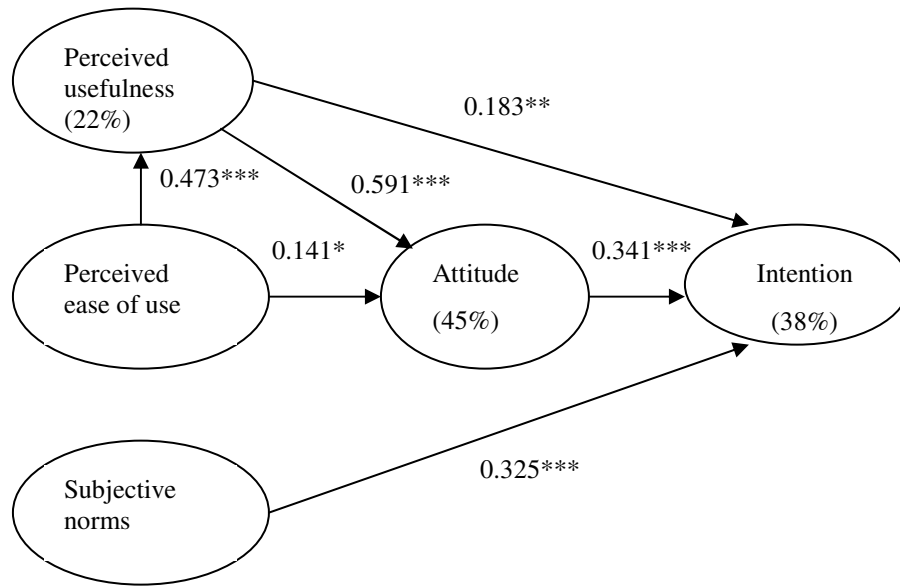
*p<0.05; **p<0.01; ***p<0.001
Numbers in brackets are squared multiple correlations

Figure 2: Results (standardized estimates)

REFERENCES:

1. Australian Institute for Gambling Research (1999). Australian Gambling Comparative History and Analysis (Melbourne: Victorian Casino and Gaming Authority).

2. Bolande, H. A. (2001). Hong Kong faces test to revise gaming laws - use of Internet betting sites grows rapidly - Jockey Club blames web casinos for lower Horse-Racing revenue. Asian Wall Street Journal. 31 Jan, pp. 4.

3. Bollen, K.A. Structural Equations with latent Variables, New York: Wiley, 1989.

4. Choi, J. and Geistfeld, L.V. (2004). A cross-cultural investigation of consumer e-shopping adoption, Journal of Economic Psychology, 25(6), 821-838.

5. Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology, MIS Quarterly, 13 (3), pp. 319-340.

6. Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two. Management Science. 35, (8), pp. 982-1004

7. Eadington, W.R. (2004). The future of online gambling in the United States and elsewhere, Journal of Public Policy & Marketing, 23:2, p. 214-219

8. Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison.Wesley.

9. Fox, P. (2005). Gambling on Online Poker, Barron's, 85:32, p. M8.

10. Galloni, A. (2001). Paddy's online gambling ads bet on shock-effect campaign - company targets young, Internet-Savvy crowd, The Asian Wall Street Journal, pp. N.4

11. Gauch, R.R. (2000). Statistical Methods for Researchers Made Very Simple. Lanham, MD: University Press of America.

12. Gefen, D., Karahanna, E., Straub, D.W. (2003) Trust and TAM in online shopping: an integrated model, MIS Quarterly, 27(1), 51-90

13. Gefen, D. and Straub, D.W. (2000). The relative importance of perceived ease-of-use in IS adoption: a study of e-commerce adoption, JAIS, 1(8), 1-30.

14. Geige, K. (2006). Corporate news: Melco net jumps; revenue doubles for Macau slots. Wall Street Journal Asia. Apr 3, 2006. pp. 6

15. Global Betting and Gaming Consultants (GBGC). The Global Gambling Report: Global Gaming Comes of Age, Global Betting and Gaming Consultants, 2002.

16. Griffiths, M. (2003). Internet gambling: Issues, concerns, and recommendations. CyberPsychology & Behavior, 6, pp. 557-568.

17. Hardoon, K. and Derevensky, J.L. (2001). Social influences involved in children's gambling behavior, Journal of Gambling Studies, 17:3, pp 191-215.

18. Hartwick, J. Barki, H. (1994). Explaining the role of user participation in information system use, Management Science, 40, 440-464.

19. Hofstede, G. and Bond, M.H. (1984). Hofstede's cultural dimensions: an independent validation using Rockeach's value survey. Journal of Cross-Cultural Psychology, 15(4), 417-432.

20. Hsu, C.L. and Lu H.P. (2004). Why people play online games? An extended TAM with social influences and flow experience, Information and Management, 41, pp. 853-868.

21. Legis, P, Ingham, J. and Collerette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model, Information and Management, 40:2, pp. 191-204.

22. Lee, C. and Green, R.T. (1991). Cross-cultural examination of Fishbein behavioral intentions models. Journal of International Business Studies, 21(2), 289-305.

23. Lesieur, H.R. and Klein, R. (1987). Pathological gambling among high school students, Addictive Behaviors, 12, pp. 129-135.

24. Lorenz, V.C. and Shuttleworth, D.E. (1983). The impact of pathical gamblingon the spouse of the gamble, Journal of Community Psychology, 11, pp. 67-76.

25. Mathieson, K. (1991). Predicting user intentions: Comparing the technology acceptance model with theory of the planned behavior. Information Systems Research. 2, pp. 173-191.

26. Nisbet, S.L. (2006). Modelling consumer intention to use gambling technologies: an innovative approach, Behavior & Information Technology, 25:3, pp. 221-231.

27. Nunnally, J.C. (1981). Psychometric Theory (2nd edition). New York: McGraw-Hill.

28. Peace, A.G, Galletta, D.F. and Thong, J.Y.L. 2003. Software piracy in the workplace: a model and empirical test, Journal of Management Information Systems, 20(1), 153-168.

29. Shaker, P.P. (2007). America's bad bet: How the unlawful Internet gambling enforcement act of 2006 will hurt the House. Fordham Journal of Corporate & Financial Law, 12:6, pp. 1183-1204.

30. Sheppard, H.H., Harwick, J. and Warshaw, P.R. (1988). The theory of reasoned action: a meta-analysis of past research with recommendation for modifications and future research, Journal of Consumer Research, 15, pp. 325-343.

31. Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: a test of competing models. Information Systems Research. 6:2, pp. 144-176.

32. Teo, T.S.H. and Liu, J. (2007). Consumer trust in e-commerce in the United States, Singapore and China, The International Journal of Management Science, 35, pp.22-38.

33. The American Gambling Association. (2006). Gambling and the Internet. In 2006 AGA Survey of Casino Entertainment, Washington, DC, Available at http://www.americangaming.org/assets/files/2006_Survey_for_Web.pdf

34. Van der Heijden, H. (2004). User acceptance of hedonic information systems, MIS Quarterly, 28:4, pp. 695-704.

35. Venkatesh, V., Davis, F.D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal studies. Management Science 46(2), 186-204.

36. Venkatesh, V., Morris, G.G., Davis, G.B. and Davis, F.D. (2003) User acceptance of information technology: towards a unified view, MIS Quarterly, 27:3, pp. 425-478.

37. Weldon, D. (2006). Online gambling sites prey on easy targets for big money. US Fed News Service, Including US State News. 27 Jun.

38. Wood, R.T. Williams, R.J. and Lawton, P.K. (2007) Why do internet gamblers prefer online versus land-based venues? Journal of Gambling Issues, 20, pp. 235-252.

APPENDIX A – ITEMS USED IN THE QUESTIONNAIRE

Intention to gamble

I will use Macau Slot to gamble online.

I predict I will make use of Macau Slot in future.

I intend to gamble online at Macau Slot.

Perceived usefulness

Macau Slot makes gambling easier

Macau Slot enables me to fulfill the purpose of gambling.

Macau Slot enables me to accomplish the purpose of gambling quickly.

Perceived ease of use

It is easy for me to become skillful in using Macau Slot.

Learning to gamble at Macau Slot is easy for me.

It is easy to gamble online at Macau Slot.

Attitude

Gambling at Macau Slot is a good idea.

I like the idea of gambling online at Macau Slot.

Gambling online at Macau Slot is pleasant.

Subjective norms

People who influence my behavior think that I can gamble online at Macau Slot.

People who are important to me think that I can gamble online at Macau

My friends and colleagues think that I can gamble online at Macau Slot