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Behavioral aspects in the use of ERP systems: Study of a global organization

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BEYOND USER ACCEPTANCE: DETERMINANTS OF INTENTION TO PRODUCE USER CREATED CONTENTS ON THE INTERNET

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Abstract

The advance in User Created Contents (UCCs) web sites like YouTube changed the role of Internet users from contents receivers to contents creators; a role which requires more pro-active user behaviour. However, the literature on user behaviour in information technology lacks theories that explain the pro-active user behaviour of producing and sharing UCCs with others on the Internet. This paper aims to reveal the major attributes of Internet users that have a positive impact on the intention to produce UCCs on the Internet. Extant related theories are reviewed to extract major factors of Internet users that lead to the production of UCCs. A questionnaire survey is administrated to 400 sampled respondents in South Korea to test the relationships among the identified factors. The results show that playfulness, self-expressiveness/sharing intention, innovativeness, computing skills and reward have a positive impact on the intention to produce UCCs. In particular, innovativeness turned out to have the biggest impact, while social participation is not a significant factor. Mediator variables such as age, gender and types of UCC also turned out to be playing a role in the causal relationships among the factors and the intention to produce UCCs. A model pertaining to the intention to produce UCCs online is developed and tested. The academic and practical implications of the study are also discussed in details.

Keywords: virtual community, social networking, user participation, technology acceptance.

1 INTRODUCTION

The American weekly newspapers 'Times' selected YouTube as the invention of the year in 2006 (Time, 2006). Furthermore, the weekly newspapers 'The Economist' envisaged that Web 2.0 and user created contents (UCCs) was the mega-trend of year 2007. There is no widely accepted definition of User Created Contents (UCC). According to Wunsch-Vincent and Vickery (2006) UCCs are "content made publicly available over the Internet reflecting a certain amount of creative effort and which is created outside of professional routines and practices". A more simplified definition is provided by Chin (2006) who defined UCC as content created by users themselves. Internet users are in the centre of this new trend by creating original and creative text, audio, image and video contents which require much more efforts than traditional Internet activities such as simply posting a reply to a web page. They create and upload their own images, audios, and videos using their mobile phone onto Internet web sites such as YouTube, FaceBook, and Phandora TV. One of the enablers of this trend is the evolution of web 2.0 that aims to facilitate bi-directional interactions between web sites and their users overcoming the one-sided information provision by web sites to their users in web 1.0. As a result, the role of users in web pages development is becoming more important (or proactive) than before as they are the major source of web contents.

Despite the new trend on the behaviour of Internet users, there is no study that aimed to investigate and explore the reasons behind such online user behaviour. Existing research on user behaviour towards Information Technology (IT) adoption have been concentrating on user acceptance (Fishbein and Ajzen 1975; Davis, 1989; Mathieson, 1991; Thompson et al., 1991; Davis et al., 1992; Taylor and Todd 1995; Moor and Benbasat 1996; Venkatesh et al., 2003). For example, Venkatesh et al., (2003) summarise the major factors for user acceptance proposed by previous studies to be: "perceived ease of use", "perceived usefulness", "attitude", "subjective norm", "extrinsic & intrinsic motivation", "perceived behavioural control", "job-fit", "complexity", "social factors", "visibility", "compatibility", and "voluntariness of use". However, user acceptance is passive user behaviour and those identified factors fall short in explaining the proactive behaviour of producing, uploading and sharing digital contents with others on the Internet; a behavior that goes well beyond technology acceptance. Most of the UCC web sites have two different types of users: content creators and content viewers. While extant factors can be employed to explain the behaviour of content viewers, it is necessary to identify the factors which explain the behaviour of content creators. Furthermore, most existing studies focused on IT in both the organizational and academic contexts in which new IT (excel, word processor, task supporting systems) are necessary or very helpful to execute users' given tasks. As a result, the acceptance of the ITs is mandatory or implicitly mandatory rather than voluntary to users. However, UCC web sites are purely voluntary and the difference in perception is under researched which strove the authors to attempt to fill this gap in the literature.

This paper aims to identify major factors that make Internet users create and share contents on the Internet in a process that requires investing intensive efforts in terms of time and resources. The study undertaken in this paper identifies seven major factors that would explain the behaviour of content creators via a thorough literature review and proposes a conceptual research model. The proposed conceptual model is tested on 400 sampled respondents in South Korea. The results show that playfulness, self-expressiveness/sharing intention, innovativeness, computing skills and reward have positive impact on the intention to produce UCCs. In particular, innovativeness turned out to have the biggest impact in comparison to social participation which does not have a significant impact on UCCs production. The academic and practical implications of the study are also discussed.

The organisation of the paper is as follows. Section 2 proposes the research model of the paper. Section 3 explains the methodology used to test the research model and section 4 presents the results. Lastly, section 5 discusses the implications of the findings and concludes the paper.

2 RESEARCH MODEL

2.1 Factors affecting the intention to produce UCC

Even though existing studies did not differentiate between the intention to use and the intention to produce, it is possible to identify the factors that initiate and affect the proactive behaviour of online content production and dissemination.

Since the 1990s, researchers such as Ahn et al., (2007), Moon and Kim, (2001), and Webster and Martocchio, (1992) focused on playfulness as a factor that explains why people adopt information systems. Barnett (1990) defines playfulness using five generic attributes namely; perceived volunteerism, social volunteerism, physical volunteerism, explicit pleasure and humorous sense. He also found that differences in individuals' playfulness positively affect the use of computers. The content creators may find it playful during the process of creating exciting contents and this leads to the repetition of the contents' creating behaviour. As a result, the first hypothesis is derived as follows:

H1: Playfulness has a positive effect on the intention to produce UCCs.

Artists express their ideas, ideology and feeling by producing artistic materials. Similarly, the purpose of producing UCCs can be compared with that of artists. Boneva et al., (2001) differentiates expression based communication from instrumental communication in computer mediated communication research. While instrumental communication is used in general behavioural communication, expressiveness is used in communications to improve mental familiarity and sharing. In this paper, expressiveness is defined as individual consciousness of how much s/he considers UCC as a tool to express himself/herself. Pederson et al., (2003) revealed that expressiveness is one of the major factors for the acceptance of multimedia messaging services (MMS). Otherwise stated, users of MMS use the services as a tool to express themselves to others in order to share their emotions. Using the same rationale, it can be inferred that the producers use UCCs as the tool to express themselves to others in public via the Internet medium. Consequently, the second hypothesis is derived below:

H2: Expressiveness has a positive impact on the intention to produce UCCs.

Most of UCCs are shared within online communities. The users produce UCCs and upload them on the Internet to share with others rather than keeping them locally on their PCs in the form of private diary entries. Butler (2001) and Hare (1976) define the Internet community as a process in which information and knowledge are shared among the community members. Butler (2001) insists that the sharing activities are an important factor to explain the dynamics of the Internet community. From this perspective, one of the reasons of producing UCCs on the Internet can be considered to be motivated by the intention to share UCCs with other community members. The intention to share is defined in this paper as "the intention to provide others with their knowledge or accept others' knowledge through UCCs on the Internet community". Based on the preceding the third hypothesis is deduced:

H3: Intention to share has a positive impact on the intention to produce UCCs.

The innovation diffusion theory provides a useful analysis framework to explain how and why new technologies are accepted and used by users (Atkin and LaRose, 1994; Leung and Wei, 1998; Lin and Jeffres, 1998; Li and Yang, 2000; Reagan, 1987). According to innovation diffusion theory (Rogers, 1995), early adopters or pioneers tend to be proactive in accepting new technology or ideology and in taking risks. Hence, innovative people tend to have stronger interests in new ideas or information and consequently have a high probability to buy new products before others (Lin and Jeffres, 1998; Ha 2005; Ban 2007). The adoption of technological innovation is determined by individuals' innovativeness or volunteerism to try new products or technologies. Innovative people have skills to understand complex technical knowledge, and tend to adopt innovation when it is not widely adopted by other social members. This segment represents those who are young, adventurous, active in

external activities and pro-active to adopt new ideas in societies (Rogers, 1995). As a result, it is natural to derive the following hypothesis.

H4: Innovativeness has a positive impact on the intention to produce UCCs.

Rogers (1995) also relates innovativeness with social participation by noting that people who adopt innovative ideas more than others tend to have a stronger desire to participate in social affairs. In this paper, social participation is defined as the level of interests or actual participation of an individual in social affairs. Human beings naturally tend to be part of society and have a basic desire to be involved in social affairs that may affect their lives. within the online community literature, social participation (sometimes referred to as ‘social enhancement’ or ‘affection social presence’) is one of the major motivators that triggers people to participate in and contribute to online communities (Dholakia et al., 2004; Shen and Khalifa, 2007). As the number of users of UCC web sites increases, many of the UCCs contain politic or environmental messages. For example, edited video clips of the President of United States were one of the most popular contents of YouTube after the Iraq War in 2003. As a result, it can be deduced that people create and upload digital contents on web sites as a way to participate in social affairs. Therefore, the fifth hypothesis is derived as follows:

H5: Social participation has a positive impact on the intention to produce UCCs.

On the other hand, producing UCCs requires users to possess a certain level of computing skills. A computing skill is defined as a competence that enables people to achieve given tasks using computer based information systems or related technologies (Lee et al., 1995). Nelson (1990) asserts that the acceptance of information technology is affected by the level of individual knowledge or skills as well as the technology itself. In the literature, it is reported that computing skills affect perceived usefulness and playfulness (Igbaria et al., 1996; Webster and Martocchio, 1992; Kouparis, 2002). UCCs require certain level of computing skills to edit or create digital contents. It can be inferred that the higher the level of computing skills a user has, the stronger s/he is attracted to create the digital contents. Based on the above, the sixth hypothesis is derived as follows:

H6: Computing skills have a positive impact on the intention to produce UCCs.

Finally, Park et al., (2006) report that people share UCCs in order to be famous or make money though this has been investigated only in South Korea. The result is in line with existing studies that identify monetary reward as one of the major motivator of online communications. Kang et al., (2006) measures the economic incentives of UCCs through qualitative metrics. In their study, the interviewees confirmed their satisfaction with the economic reward from the UCCs they produced. This leads to the final hypothesis of this paper:

H7: Reward has a positive impact on the intention to produce UCCs.

Figure 1 summarises the proposed conceptual research model based on the derived hypotheses:

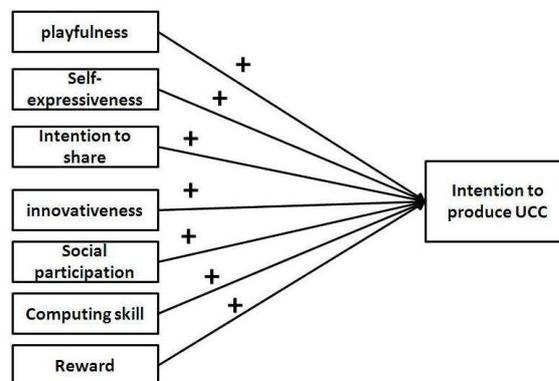


Figure 1 The Conceptual research model on Users’ intention to produce online UCCs

Variable	Measurements	References
Playfulness	I do not know how time is going when I produce UCCs.	(Moon and Kim, 2000; Lee and Lee, 2005)
	I do not hear any sounds when I produce UCCs.	
	I often forget what I have to do when I produce UCCs.	
	I am very pleased and it is a big fun to produce UCCs.	
	Producing UCCs stimulate my creativity and curiosity.	
Self-expressiveness	I use UCC as a tool to show myself to others.	(Han and Kim, 2005; Choi, 2006; Boneva et al., 2001; Pederson and Nysveen, 2003)
	Producing UCC is a means to express myself.	
	I can make my name public through UCCs.	
Sharing intention	I can make a social network via UCCs.	(Yoo et al., 2006 ; Park, 2001; Hansen, 1999; Zander, 1995)
	Producing UCC helps to improve the capability of the community by developing new skills.	
	I can affect others through UCC production.	
Innovativeness	I have strong interests in new idea or information on UCCs	(Ha, 2005)
	I would like to produce new UCCs before others do.	
	I will try to produce new types of UCCs.	
Social participation	I can acknowledge messages about social problems by producing and distributing UCCs.	(Rogers, 1995)
	I can participate to the activities of NGO or social activities group through UCCs.	
	I can participate to political activities through UCC production.	
Computing skill	I can use UCC production softwares.	(Torkzadeh and Lee, 2002)
	I can produce UCC using my own computing skills.	
	I can use UCC related softwares such as photo and animation editors.	
	I can teach others about how to use UCC related technologies.	
Reward	I can expect income from producing UCCs.	(Park et al., 2007; Kang et al., 2007)
	Producing UCCs would be helpful for my CV.	
	I would expect winning award from UCC competitions.	
Intention to produce UCCs	I will produce UCCs in the future.	(Cha and Jung, 2007; Davis, 1992)
	I will increase time to produce UCCs in the future.	
	I will keep producing UCCs in the future.	

Table 1 The operationalisation of variables.

2.2 Control Variables

According to the global leader in internet media and market research Nielsen//NetRatings by Wunsch-Vincent and Vickery (2006), men are 20% more likely to visit YouTube than women. Furthermore, of those who actively produce UCCs 86% are males. In the meantime, while Blogging is very popular in countries such as China, India, and Iran, a recent Microsoft survey shows that of all Asian Internet users, women are very active bloggers accounting for 55% of bloggers in Asia with men mostly overwhelming blogging in India (Stern, 2006). There is a clear indication that there are differences in the level of involvement of males and females in UCCs. This level of involvement differs depending on the geographical location as per the aforementioned statistics. As such, in this study gender was introduced as a control variable to measure its effect on Internet users' intention to produce UCCs in South Korea.

The social drivers of UCCs production such as willingness to share, contribute and to create online communities are altering the media consumption habits of internet users particular within the younger age group of 12 to 17 years old. According to the Nielsen//NetRatings' (2006) report, UCC has already begun to have an impact on traditional media industries. The statistics show that users aged between

15-24 years of age reduced their consumption of offline media in the UK. This reduction is driven by Internet use (ofcom, 2006). This implies that out of the various possible age groups to view or produce UCCs 15-24 years old are probably the most potentially effective segment. This claim is also supported by findings in the report that state that YouTube visitors aged between 12-17 years of age (those who mainly view but might not necessarily have produced UCC before) are the highest among all the various age groups. For those internet users who publish UCCs namely amateur video contents, 75% are under the age of 25. In the light of the above, it is clear that the age group to target falls around the 12-15 years old, hence the authors defined a control variable that would accommodate such a segment namely; 10s and 20s years of age to test the effect of the two age groups on the intention to produce UCCs.

Reflecting on the previous subsection 2.1.2, it is apparent that within such an age segment lay two user categories namely; those who have previously created UCCs and those who are mainly viewers of UCCs with possibly no previous experience in UCCs production. The research distinguishes between these two categories of internet users and introduces a control variable (self / non-self produced UCC) to test the effect of the level of involvement in UCCs on the intention to produce UCCs.

3 METHODOLOGY

In order to test the conceptual research model presented in section 2, a survey questionnaire method was applied. The operationalisation of the variables was conducted via a literature review and are summarised in Table 1. A pilot survey had been performed to test the validity of the questionnaires before they were administrated to the respondents. The sample for data collection was targeted at teenagers and people in their twenties in South Korea as they are the most active users of UCCs (Yim, 2007). Four hundred respondents who had an experience of producing or plan to produce UCC in the Seoul and Kyong-gi province have been sampled randomly for a questionnaire survey. Out of a total of 400 completed questionnaires 389 were used for the analysis after filtering out 11 non-sensible questionnaire responses. Male respondents represent 45.2% of the respondents while 54.8% of respondents were females... The respondents' ages were distributed as follows: 49.6% teenagers, 46.3% in their twenties, 3.1% in their thirties, and finally 1% in their forties Most of the respondents had more than five years of Internet experience and about 60% of the respondents were visiting UCC related web sites at least 3 times a week. As a result, most of the respondents had enough knowledge to respond to the questions.

4 DATA ANALYSIS AND RESULT

4.1 Validity and reliability test

To test the reliability of the survey constructs, Cronbach's alpha value was used. As for the validity test, firstly, the exploratory factor analysis was used to judge unidimensionality of sub variables. Secondly, the principal component analysis using varimax rotation has been employed to extract factors to reduce the number of factors with minimum loss of data. First, the factors whose eigen value is bigger than 1 from principal component analysis were extracted. Then, varimax rotation was performed on the extracted factors. The analysis of variables resulted in 6 factors which were used as measurements of users' intention to produce UCCs. Among the 7 variables, self-expressiveness and sharing intention have been represented and grouped into one factor based on the fact that users want to show off themselves by sharing their contents to provide others with a pleasure. The detailed data of the factor analysis is not shown here for the conciseness of the paper but the variables were well tied to each other according to each factor and the factor loading values were bigger than 0.6.

A reliability test using Cronbach's alpha was performed after excluding the invalid variables from the factor analysis. As shown in Table 2, the most of the alpha values are higher than 0.8, hence the collected data can be considered as reliable for the variables.

Variable	PF	SE	SI	IN	SP	CS	CO	IP
Cronbach's alpha	0.850	0.531	0.858	0.842	0.926	0.850	0.775	0.898

Table 2 Reliability test results. (PF: Playfulness / SE: Self expressiveness / SI: Sharing intention / IN: Innovativeness / SP: Social participation / CS: Computing skills / CO: reward / IP: Intention to produce)

4.2 The research model test

Multiple regression analysis and ANOVA were employed to test the hypotheses in the conceptual research model presented in Figure 1. Six among seven factors were used as independent variables after merging 'self-expressiveness' with 'sharing intention' while the intention to produce UCCs was defined as the dependent variable. The result of the regression analysis and the ANOVA results are summarised in Table 3 and 4 respectively.

R	R ²	Adjusted R ²	Standard error
0.684	0.467	0.459	0.76701

Table 3 Regression analysis validation

Model	Sum squares	d.f.	Mean square	F	significance
Linear regression analysis	197.288	6	32.881	55.892	0.000**
Residual	224.733	382	0.588		
Sum	422.021	388			

Table 4 ANOVA results

From the above tables, the R² value of the regression equation is 0.467 and the significance level of the ANOVA is 0.05. As a result, the regression equation can be considered valid to explain the dependent variable namely; the 'intention to produce UCCs'.

(a) According to Table 5 and

(b)

Figure 2 (a), five factors apart from social participation turned out to be significant in explaining the intention to produce UCCs without a multi-collinearity issue.

Factor	Beta	t	Significance	Collinearity	
				Tolerance	VIF
Playfulness	0.152	2.981	0.003	0.536	1.865
Self-expression/ sharing intention	0.118	2.264	0.024	0.515	1.940
innovativeness	0.398	7.998	0.000	0.562	1.779
Social participation	-0.058	-1.234	0.218	0.624	1.602
Computing skill	0.121	2.831	0.005	0.762	1.313
Reward	0.127	2.733	0.07	0.649	1.542

Table 5 Estimated regression equation

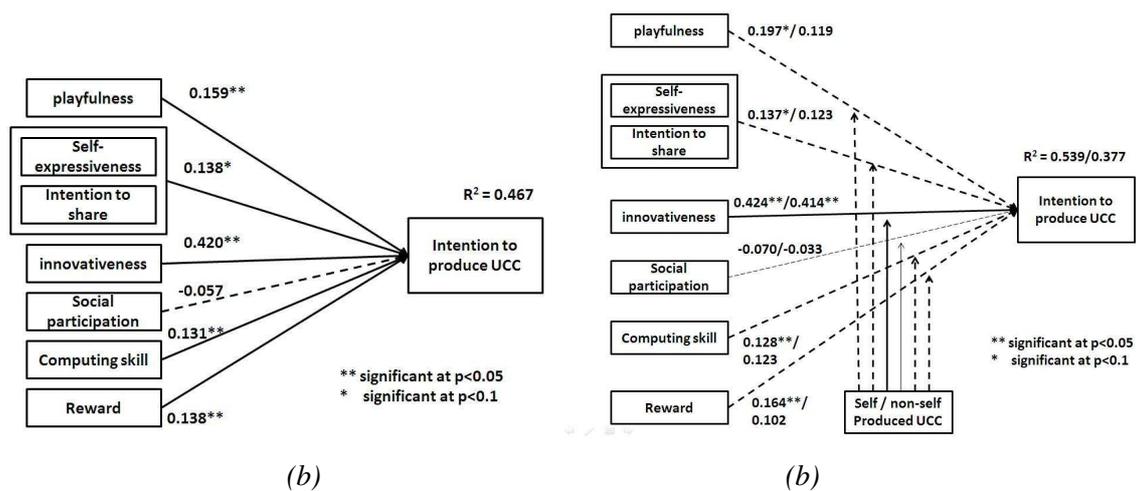


Figure 2 (a) Regression analysis for the research model (b) moderation effect of the type of UCC on the research model

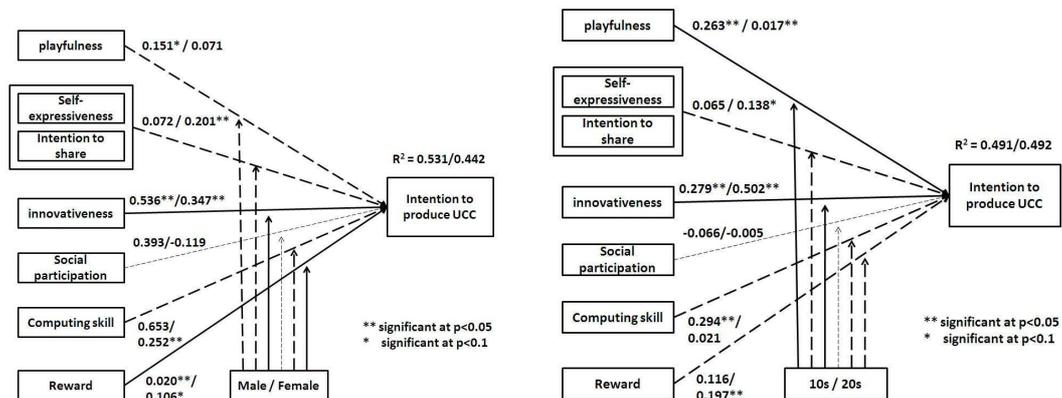


Figure 3 (a) The moderation effect of gender on the research model; (b) The moderation effect of age on the research model

Further analysis was made to investigate the effect of control variables such as gender, age and UCC type on the intention to produce UCCs with the results shown in Figure 2 (b) and Figure 3. According to the results, innovativeness turned out to be the most important factor that affects the intention to produce UCCs regardless the type of contents, gender or age. On the other hand, social participation does not affect the intention to produce UCCs. Figure 2 (b) shows the relationships between the six factors and the intention to produce UCC according to the type of contents. Playfulness, self-expressiveness, computing skills and reward turned out to be significant factors for producing self-produced UCCs, while they do not have significant impacts for non-self produced UCCs. In particular, computing skills and reward were the most significant factors for self produced UCCs which can be explained by the fact that a high level of computing skills is required for self produced UCCs. In addition, the desire to be compensated for their idea and creativeness on the UCCs is one of the major motivator of the self producers. Figure 3 (a) shows that males and females are affected by different factors in producing UCCs. Males are affected by playfulness and reward, while females by self-expressiveness / sharing intention and computing skills. On the other hand, according to Figure 3 (b), the major motivation to produce UCCs for teenagers is playfulness and computing skills while the motivation for twenties are self-expressiveness / sharing intention and reward. Finally, Table 6 summarises the hypotheses test results as discussed above.

5 DISCUSSION & CONCLUSION

It is worth to note that the proposed research model does not include some factors used to explain the intention to accept new ITs in previous studies like social influence, perceived ease of use, perceived usefulness as those factors are strongly related to the passive behavioural intention. Hence they are not appropriate to explain the pro-active behavioural intention to produce UCCs without any external pressure. Lu et al., (2005) report a positive impact of social influence on the acceptance of new IT like mobile services which were provided to users in non-working environments. They argue that users feel that the use of new IT can improve their (social) image which demonstrates an example of how social influence can affect user acceptance. However, the behaviour of producing UCCs is performed in virtual society with anonymity, and the impact of the social image does not play a significant role in the context. As a result, the role of social influences which represents the influences of other people who belong to a user's social network was excluded from the research model.

Hypothesis	Description	Result
H1	Playfulness has positive impact to the intention to produce UCCs	Accept
H2	Self-expressiveness has positive impact to the intention to produce UCCs	Accept
H3	Innovativeness has positive impact to the intention to produce UCCs	Accept
H4	Social participation has positive impact to the intention to produce UCCs	Reject
H5	Computing skill has positive impact to the intention to produce UCCs	Accept
H6	Reward has positive impact to the intention to produce UCCs	Accept

Table 6 The conceptual research model hypotheses test results.

As shown in Table 6, all hypotheses apart from H4 were accepted. In particular, innovativeness turned out to be the most significant factor for producing UCCs. Even though there are studies that highlight the important effect of personal innovativeness on user acceptance (Lu et al., 2005; Agarwal and Prasad, 1998a; Agarwal and Prasad, 1998b), the result in this paper revealed that the innovativeness has the strongest impact among others on the acceptance of purely voluntary and computing skill demanding IT processes such as UCCs. In their studies, innovativeness was found to be a moderator rather than a direct determinant of the intention to use new ITs. Such a difference can attribute to the fact that the role of users in ITs in general is still passive compared to being pro-active as demonstrated in UCC web sites.

The acceptance of H5 needs to be interpreted in relation to existing studies that report the irrelevance of computing skills to IT acceptance. Computing skills have not been considered as one of the major factors in the acceptance of IT in the literature. The main reason being the high level of user knowledge of IT as a result of the widespread of computers and Internet technology. As a result Igbaria and Nachman (1990)'s proposition that Information Systems (IS) satisfaction is affected by computer use was considered not longer valid in modern society. However, the results in this study showed that computing skills significantly affect the intention to produce UCCs. This is because UCCs production is a more complex task than using other back office systems as such production requires more advanced computing skills to create and edit videos and pictures using digital devices and software.

On the other hand, the motivation for social participation turned out to be an insignificant factor for the production of UCCs. This is due to the nature of the respondents who are mostly teenagers or in their twenties who normally do not have strong interests in politics and social affairs (Kimberlee, 2002).

The role of mediation variables such as age, gender and UCC type turned out to be significant in explaining the relationships between the factors and the intention to produce UCCs. In particular, the identified factors can explain the intention to produce purely self-produced UCCs, but not non-self

produced UCCs. This implies that the identified factors have more to do with proactive user behaviour because self-produced as opposed to non-self-produced UCCs require more effort. With regards to gender differences, the results are in line with existing studies that reported gender differences in user acceptance of new IT (Venkatesh et al., 2003). In this study, females are more sensitive towards computing skills to produce UCCs; which again is in line with existing studies that report that in general, females have less computer experience and have a negative attitude towards accepting new IT (Schumacher and Morahan-Martin, 2001). Furthermore, playfulness turned out to have a significant impact only on males' intention to produce UCCs. In other words, males produce UCCs as a tool to play, while females do not perceive it in this perspective. This result concurs with existing studies by Phillis et al., (2002) that report gender difference on electronic games. With regards to age, it was found that teenagers tend to be more sensitive to computing skills than those who are in their twenties as teenagers are usually not well trained on IT as much as twenties. Also, those who are in their twenties consider compensation is a more important factor than playfulness, which is not the case for teenagers. Finally, innovativeness turned out to be significant while social participation is insignificant. Both facts are regardless of differences in age, gender or UCCs' type.

The paper delivers a number of contributions to both theory and practice. Firstly, to the authors' knowledge, this is the first effort to identify the major factors that affect Internet users' intention to produce UCCs. A process that requires more proactive user behaviour than that of just accepting new information technology. In particular, innovativeness turned out to be the most significant factor to explain this proactive user behaviour. Secondly, this paper joins existing studies that highlighted the role of mediator variables namely; age and gender in user acceptance literature from proactive user behaviour's perspective. Thirdly, from a practical perspective, managers of UCC web sites would benefit from the research model when setting up their strategies as to focus on innovativeness and playfulness to enable a sustainable production of UCCs by their users.

The goal of the paper was to identify major factors that affect the intention to produce UCCs and as a result it lacked the scope to focus on the components that explain the internal users' process in producing UCCs on the Internet. As an example and a potential future research, structural equation modelling (Kline, 2005) would be a good approach to reveal the procedural structure among the factors identified in this paper, along with any potential external factors in future studies. The implications of the study are self-evident. Firstly, the contextual variable that determines how a new IT is introduced in a society or an organisation affects the acceptance of the technology. As shown in this study, the UCCs are typical example of voluntarism, and the innovativeness plays the most significant role in the user acceptance in this context.

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