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Towards A Model for Studying Social Media Adoption for the Co-Creation Services Domain

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Abstract

Objectives: Recently, many types of businesses have adopted various social media platforms as fundamental components to conduct their processes with customers. The success of any business through social media depends on the level of customer acceptance. Customers' intention to participate in social media presents a significant area for research. Thus, the objective of this paper is to develop an effective model that can be used to explain the factors affecting customer participation in social media for co-creation services. **Methods**: This study includes a critical literature review of the following popular acceptance theories: the Technology Acceptance Model (TAM), the Theory of Planned Behaviour (TPB), the Theory of Reasoned Action (TRA) and the Unified Theory of Acceptance and Use of Technology (UTAUT), as well as social media acceptance studies. **Findings**: The literature review indicates that while numerous technology acceptance studies have used and extended TAM to other constructs, few have extended it to the experience that customers expect to gain from their participation. To fill this gap, the proposed model builds on TAM and extends it using relevant appropriate constructs, such as social influence and customer experience (hedonic value, social integrative value and customer learning value). **Improvements/Applications**: The information generated by this study may be useful to future studies in the area of acceptance technology. The present research is among the few works examining social media acceptance for co-creation services.

Keywords: Co-Creation, Customer Experience, Social Media, Social Influence, TAM

1. Introduction

Undoubtedly, Social Media (SM) is not only an acceptable technology, but it has also become part of people's daily lives, particularly platforms such as Facebook, Twitter, Instagram and more. Social media plays different roles in people's lives. It has become one of the main methods of social connection and communication for the individuals, firms or governments. In recent years, social media has been used extensively to launch brand communities. Recent studies found that, more than 1.5 million businesses were involved in such activities which helps to leverage co-creation activities such as social sharing as well as to co-create market value¹. The popularity of social media changes consumer behaviours; for example,

according to a recent study on 1,500 consumers², brand pages on social media have many fans and followers; 60% of Facebook fans and 79% of Twitter followers are more likely to recommend those brands, while 51% of Facebook fans and 67% of Twitter followers are more likely to purchase from these brands. This result shows that customers who follow the brands' pages on social media are more likely to recommend and purchase from those brands than before. Using social media creates a deeper relationship between the firms and their customers, as social media enables customers not only to choose products and buy them, but also to adopt many roles, such as innovator, designer, tester, marketer or support specialist, which refers to customers becoming co-creators with the firms^{3, 4}. Customer co-creation is defined as a set of

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processes that create an effective and social cooperation process between firms and their customers to develop new products⁵.

This new trend highlights the importance of social media as a new platform for co-creation services. The success of any business conducted through social media depends not only on the business but also on customer acceptance of the business. Thus, many research studies have investigated the adoption of social media with the use of one of the existing acceptance models for understanding customer behaviors towards social media in different contexts, such as health⁶, learning⁷ and societal⁸contexts. However, only few studies have been carried out to investigate the adoption of social media in the co-creation services context9. Thus, it is necessary to conduct a study on the adoption of social media for co-creation services. The main objective of this study is to develop an effective model that can be used to measure the level of customer acceptance of the use of social media by business for co-creation services. Hence, several acceptance models used in the social media field are discussed as well as the effect of social influence on customer intentions are examined. As social influence on customer intentions can be direct or indirect so this study examined this effect through two dimensions such as the customer experience dimension (customer learning value, social integrative value and hedonic value) and the technology acceptance factors dimension (usefulness of SM and the ease of use of SM). This paper is organized as follows: The first section describes the co-creation experience. Next, acceptance theories and previous studies are presented to examine the adoption of social media. The subsequent section proposes this study's conceptual model for the adoption of social media for co-creation services. The final section presents the conclusions of this paper.

2. Research Background

2.1 The Co-creation Experience

Co-creation services can be defined as the participation of consumers along with producers in the marketplace¹⁰. The purpose of a co-creation service is to involve customers in the design process early, so that customers' knowledge and designs combine with companies' producer and user collaboration-based knowledge. Co-creation services provide many advantages to both firm and customer. From the firm's perspective, co-creation services help reduce risk to investments when developing new products and help firms understand their customers' needs.

This leads to better customer satisfaction and loyalty because customers feel rewarded, and it produces high quality products at less cost and increases the firm's competitive advantage in the marketplace.

Previous studies on co-creation services conducted in relation to website platforms found that customer learning value, social integrative value and hedonic value have the strongest effect on customer behavior related to participation¹¹⁻¹³ Similarly, these results were validated in social media platforms, who found that these experiences (customer learning value, social integrative value and hedonic value) determine customer intention of future participation.

2.2 Popular Technology Acceptance Theories

The following subsections identify the technology acceptance models previously used to empirically examine the adoption of social media.

2.2.1 Theory of Reasoned Action (TRA)

The TRA is the earliest acceptance model, and it was developed in¹⁴. It has been used extensively in academic literature and empirical studies. The TRA focuses on predicting people's intention behaviours based on three motivational components: attitude, subjective norms (SNs) and behavioural intention. Attitude indicates an individual's beliefs towards the implementation of a particular behaviour, either positively or negatively. SNs refer to how people surrounding an individual influence his or her decision to exhibit a particular behaviour¹⁵. Behavioural intention indicates an individual's willingness to conduct a particular behaviour based on their attitude and SNs.

Figure 1 shows the TRA model, which suggests that attitude and SNs determine an individual's behavioural intention. Consequently, the individual's behavioural intention determines the actual behaviour. However, the limitation of the TRA model is that it assumes that

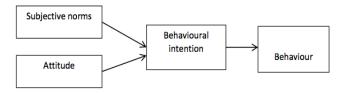


Figure 1. The TRA

behaviours are intended, controlled and planned¹⁶. The TRA model has attracted much criticism from those who believe it is impossible to predict behaviours that are uncontrolled, such as unusual behaviours and illogical decisions.

2.2.2 Theory of Planned Behaviour (TPB)

The TPB was developed to counteract the criticism towards the TRA, which assumes that behaviours are performed intentionally. Perceived behavioural control (PBC) was included in the TPB to show that behavioural intention does not always lead to actual behaviour¹⁶. PBC broadens the TPB to include intention, attitude and beliefs. Previous study also found that PBC has a positive effect on behaviour. However it can be direct or indirect effect as PBC heavily relies on behavioural intention. The key variables of the TPB therefore include attitude, SNs and PBC¹⁶. Attitude towards behaviour and SNs are adopted from the TRA. PBC is used to evaluate the effect of constraints, whether internal or external, on an individual to easily exhibit a particular behaviour. Figure 2shows the TPB model. It assumes that attitude, SNs and PCB determine an individual's intention to exhibit a behaviour. In turn, the individual's intention determines whether he/ she will actually exhibit the particular behaviour; in other words, a positive attitude, SNs and PBC have a positive impact on an individual's intention to exhibit an actual behaviour. Behavioural intention can alone predict the actual behaviour when the behaviour is under control, but if the behaviour is not under control, behavioural intention requires PBC to predict the actual behaviour¹⁷.

However, the limitation of the TPB model is that despite developing the TPB model to incorporate the PBC variable, In¹⁸ criticised the TPB model because PBC does not involve specific factors, and the impact on expected behaviour was not identified.

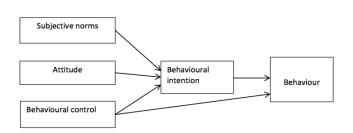


Figure 2. The TPB model

2.2.3 Technology Acceptance Model (TAM)

In¹⁹ developed the TAM in organisational areas to predict individual behaviours that affect how users accept new technologies, such as information systems (ISs). Previous IS studies also suggest that the TAM has become one of the most influential models which has been widely used in this field of research^{20, 21}. The TAM model extends the TRA model by dividing attitude into two constructs to predict an individual's acceptance of a new technology. These constructs include perceived usefulness (PU), which is the extent an individual believes that his or her work performance will improve by using a specific system, and perceived ease of use (PEOU), which is the extent an individual believes that his or her work would require less effort by adopting a specific system. The TAM has gained wide popularity in research studies, especially in empirical research, because it is cost-effective and suitable for IS research. The TAM assumes, as shown in Figure 3, that PEOU and PU determine attitudes towards technology. In turn, these attitudes towards technology and the PU of technology determine behavioural intention, which indicates whether an individual will exhibit an actual behaviour. Moreover, PU is affected by PEOU. Other external variables affect both variables, such as social factors, which then affect an individual's acceptance of a new technology.

The TAM model has been validated by many empirical studies in different contexts. However, some scholars have criticised the TAM model because some significant factors could affect behavioural intention in non-organisational areas that are not involved in the TAM²². For example, the TAM model neglects the social and cultural aspects that affect users' decisions regarding the adoption of technology²³. Hence, The TAM is developed to different versions, such as UTAUT.

2.2.4 Unified Theory of Acceptance and Use of

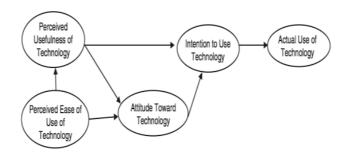


Figure 3. The TAM

Technology (UTAUT)

To study technology acceptance, In developed the UTAUT model by combining the following eight models: the TRA, the TPB, the TAM, the combined TPB and TAM, the motivational model (MM), the model of PC utilization (MPCU), the Innovation Diffusion Theory (IDT) and the social cognitive theory (SCT). The UTAUT model involves the performance expectancy (PE), effort expectancy (EE), social influence and facilitating conditions (FC) variables, which have a direct impact on behavioural intention and actual behaviours. The constructs of the UTAUT model are defined as follows. PE 'is defined as the degree to which an individual believes that using the system will help him or her to attain gains in job performance, EE 'is defined as the degree of ease associated with the use of the system', social influence 'is defined as the degree to which an individual perceives that important others believe he or she should use the new system, and FCs 'are defined as the degree to which an individual believes that the use of the system is supported by an organizational and technical infrastructure'. Figure 4 shows the UTAUT variables and relationships among them. The effects of these factors on intention and behavioural use are moderated by gender, age, experience and voluntariness. Nevertheless, initially, the limitation of the UTAUT was that it was created in an organisational context to offer comprehensive knowledge of technology acceptance, but a gap remains in using the UTAUT and in its application in the consumer context²⁴. Some salient factors that affect customer acceptance of new technology are necessary to review as hedonic motivation²⁴.

2.3 Technology Acceptance Theories in Social Media Studies

In the area of social media, a growing body of academic research seeks to determine the variables that lead to user acceptance and utilization of social media. The peer-re-

Table1. Acceptance models in social media studies.

Model/Source	Σ
Extended TRA	1
Extended TPB	2
Extended TAM	9
UTAUT	2
Extended UTAUT	1

viewed articles (published in English between 2008 and 2015) examined in the present paper were found using Google Scholar, EBSCOhost and Science Direct. The terms 'social media' and 'acceptance' served as the keywords used to search for relevant papers. Only full-text, scholarly peer-reviewed and referential cited articles bearing potential relevancy to the current review have been assessed and included. Table 1 categorizes the social media acceptance studies according to the base acceptance theory used, and Σ presents the total number of studies conducted for each acceptance theory. This information reveals that there have been few technology acceptance studies in the field of social media. The most frequently used acceptance models in relation to social media are the TAM, TRA, TPB and UTAUT. The most popular model used has been TAM, which has been extended to constructs such as critical mass, capability, perceived playfulness, trustworthiness, social pressures, trust and frequency of internet use²⁵. Furthermore, social influence is a popular, significant factor that affects user social media participation²⁶⁻²⁹. Extended TAM model was used by previous studies in different context such as blog usage, technology acceptance by travel communities etc³⁰⁻³⁴.

2.4 Social Influence

In information technology (IT), social influence is defined as the extent to which a person realizes that important people think he or she must use the IS. Previous studies also found that social influence has a positive effect on user intension and usage behaviour to adopt the IT, such as social media by validating the acceptance models. There are three main constructs to measure social influence in the acceptance models, namely SNs, social factors and image, and these constructs become significant when the context of the study is a mandated context and there is no difference between these constructs in a voluntary context. Therefore, in this study on voluntary context social media, there is no difference among them in the social media field. In general, this study considers the three constructs similar because this study views social media in a voluntary context.

There are two types of social influence from social, psychological and economic perspectives³⁵. The first involves SNs, which have two different influences: informational influence, which happens when an individual accepts the information as evidence of the reality from other individuals, and normative influence, which happens when an individual wants a reward or to avoid punishment by

confirming the expectations of others³⁶. These two kinds of influence generally have three types of responses, as follows. Informational influence is an internalization process that occurs when individuals accept their beliefs or behaviours publicly and privately³⁷. Normative influence is a form of identification that occurs when somebody who is liked and respected, such as a famous celebrity, affects individuals, and compliance occurs when individuals appear to agree with others, but in reality, they keep their opposing viewpoints private³⁷. Critical mass is defined as the fact that if the number of technology users increases, this will lead to an increase in technology value. People tend to believe that certain behaviours are sensible when they observe many others exhibiting them³⁸. Hence, the mass of users connected to a user through social media is a significant component to explain the behavior.

3. Proposed Model and **Hypotheses Development**

3.1 Justification for Using TAM, Social **Influence and Co-creation Experience**

As seen in the previous literature, the effort of using social media and the expected benefits from it are the most significant factors that motivate users to use social media. The TRA and the TPB models do not measure these factors, so they will not be included in this study. In contrast, TAM can explain the effort and benefits of using an IS with the constructs PEOU and PU, respectively. These are further explained in the UTAUT model. PE and EE represent PU and PEOU, respectively, based on TAM. However, the UTAUT model was excluded from this study, because when both PE and EE constructs are present, facilitating conditions become insignificant³⁹. In addition, prior studies have argued that facilitating conditions does not have any significant effect on the intention to adopt social media as a communication toolbecause the FCs of social media cannot be changed by the users themselves, making it an unimportant factor when investigating customer behaviours regarding social media adoption.

Previous studies also suggest that when individual differences and social influences are of interest of any technology adoption related study, the TAM model is considered as one of the most suitable model for understanding the individual adoption of technology. However, in the case of social media acceptance as technology adoption, the extended TAM model is used most frequently, and its hypotheses are validated. This indicates that TAM is insufficient to predict intention behaviour. Thus, there is a need to use other theories to complement the TAM model. Previous findings also argued that it is necessary to integrate individual experience and social influence in a model to extend TAM to make it more suitable to social media for co-creation service.

Social influence plays a significant role in user adoption of new technology and is found in most acceptance theories and models. In addition, social influence is the most validated construct in social media acceptance studies. Social influence processes are well-received revisions that facilitate the TAM model to do better prediction of user acceptance of a new technology. Many researchers also have examined the TAM model and extended it to other variables to strengthen it in social media context. However, many such studies neglect important factors that could affect intention and usage behaviours in relation to the customer experience, such as hedonic value, customer learning value and social integrative value. To address this gap, the proposed model aims to build on TAM and extend to social influence and the customer experience to predict social media adoption for co-creation services.

3.2 Selected Hypothesis for the Current **Research Study**

The TAM model is adopted as the fundamental model. This study excludes attitude from the proposed model because many scholars argue that attitude is not important in determining all behaviours. Moreover, inrecommended omitting attitude from the TAM and considering only PU, PEOU and behavioural intention variables. Many studies have followed this recommendation by dropping attitude from the TAM in the social media context. Using existing studies as a source of evidence, attitude was dropped from the research model for this study. Moreover, this research excludes the actual usage variable because it is a dependent variable, and the relationship between intention to use and actual use is supported in most acceptance models. Therefore, PU, PEOU and behavioural intention were adopted from the TAM model. In addition, the TAM extends to the social influence variable and the co-creation experiences dimension adopted from in (customer learning value, social integrative value and hedonic value) to strengthen the TAM.

3.3 The Effect of Social Influence

It is necessary to exchange and share knowledge among others while participating in social media which helps to co-create market value as well as enhance knowledge and skills. Social influence plays an important role in motivating customers to share their knowledge with other customers and firms. A number of empirical evidence also supports that SNs have a positive effect on the intention to share knowledge^{40,41}. Hence, this study proposes the following hypothesis H1:

H1: Social influence value is positively related to customers' learning value.

Based on the literature review, this study suggests that customers'perceived high levels of social influenceto participate in social media for co-creation increase the chance of adopting the system rather than avoid it. In the meantime, customers will enhance the quantity and quality of the social relationship with the firm and with other participants. Evidence from previous research on technology acceptance also relates social benefit to the level of participation⁴². This argument has been supported by empirical study⁴³. Thus, literature reviewed above leads to H2.

H2: Social influence value is positively related to social integrative value.

This study also suggests that social influence can be affected by the customers' previous usage experience. It can be concluded congruent or similar opinions and positive information from previous customers about their experiences when using social media for co-creation will lead to enhanced enjoyment, while incongruent opinions and negative information will lead to diminished

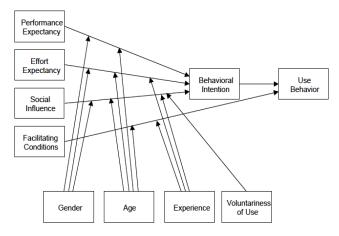


Figure 4. The UTAUT

enjoyment. Social influence thus has a positive effect on hedonic value^{43,44}. Accordingly the study proposes the following hypothesis H3:

H3: Social influence value is positively related to hedonic value.

Perceived usefulness (PU) and perceived ease-of-use (PEU) are the basic constructs of the TAM model. Studies have indicated that PU refers to the degree to which a customer believes that participating in social media for co-creation purposes will enhance their performance. Based on TAM2 and TAM3, Social influence (subjective norms) has an impact on PU.Moreover, this finding is also supported by an empirical study in the wireless mobile technology context⁴⁵. Thus, hypothesis H4 is developed:

H4: Social influence value is positively related to PU.

It has been argued that,PEU refers to the degree to which a person believes that participating in social media for co-creation purposes would involve minimal effort. Customers' skills, nature of the social media and the explicit opinions of their society about social influence can affect the perceived ease of use among non-adopters of social media. Other empirical studies have also supported this argument⁴⁵. Thus, this study proposes the following hypothesis H5:

H5: Social influence is a positively related to ease of use.

Most of the acceptance models in the previous IS research also validate that social influence has a positive effect on individual behaviour. It extensively effect future participation of individual in the system in both mandatory and voluntary contexts; the models include the TRA, TPB, TAM2, TAM3, UTAUT and UTAUT2). Moreover, this result is supported by empirical studies in such different areas as playing on-line gamesand blog platforms. Hence, H6 is derived.

H6: Social influence is positively related to the continued intention to use social media for co-creation.

3.4 The effect of the customer co-creation experience

Customers' interactions with a firm or other customers with the same interests in the products, their features and their design could be a source of hedonic and mental stimulation and of new knowledge and skills, and they thus could establish relationships within the online

community through continued participation. This argument empirically supports an area of co-creation services. Based on the above discussions, the following hypotheses were developed:

H7: The customer learning value is positively related to the intention to use social media for the purpose of co-creation;

H8: Social value is positively related to the intention to use social media for the purpose of co-creation; and

H9: Hedonic value is positively related to the intention to use social media for the purpose of co-creation.

According to TAM3, there is a significant relationship exists between perceived enjoyment and perceived ease of use. Moreover, other empirical studies also provided evidence to support this relationship⁴⁶⁻⁴⁸. Thus, this study proposes the following hypothesis H10:

H10: Hedonic value is positively related to perceived ease of use.

Customers' interaction on social media for co-creation can increase time spent on their participation, which helps to derive the hedonic value and perceived greater usefulness. Previous studies have argued that hedonic value as intrinsic motivation had a positive significant relationship with usefulness as extrinsic motivation⁴⁹. Thus, hypothesis H11 is developed.

H11: Hedonic value is positively related to PU.

3.5 The Effect of the Technological **Acceptance Factors**

According to the literature review and TAM, PU and perceived ease of use (PEU)are the most essential constructs for understanding intention to use the system or platform like social media. TAM demonstrates that if system or platform usage is easy (perceived ease of use) then users can complete more tasks (perceived usefulness) which means there is a relationship exists between PU and PEU. Several empirical studies have provided evidence to support this relationship⁵⁰. Thus, this study proposes the following hypotheses.

H12: Perceived ease of use is positively related to intention to use social media for co-creation.

H13: Perceived usefulness is positively related to intention to use social media for co-creation

H14: Perceived ease of use is positively related to PU.

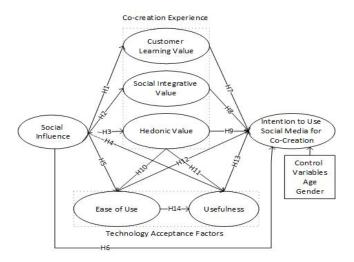


Figure 5. Research model

3.6 Control Variables

In order to validate the proposed research model, it was assumed that women and young people would have a greater potential for engaging in value co-creation activities because they may feel more comfortable with social sharing⁵¹. Previous study also argued that, women are impacted more by social influence than men. In Figure 5, all hypotheses discussed in this article are represented in a research model.

4. Conclusions

The TAM model, while validated, does not sufficiently predict social media acceptance. The current study may be the first to extend TAM to customer experiences (hedonic, social integrative and customer learning). The validation of the proposed model is expected to help answer the research question: What are the factors that influence customer intention to engage in social media for co-creation services? The information generated by this study may be useful to future studies in the area of acceptance technology. The present research is among the few works examining social media acceptance for co-creation services; as such, further study should be conducted in this area.

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