



A Conceptual Framework for Social Media Engagement in Academic Library to advocate Participatory Service towards Dynamic Learning Community

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Abstract

Academic libraries are being forced to adopt a more advanced version of the library model, where library systems integrate with users to disseminate knowledge for educational purposes and create a dynamic learning community, because of the growing potential of social media applications to effectively revolutionize library participation. This paper aims to develop a conceptual framework of Social Media Engagement in Academic Libraries to Advocate Participatory Service Towards a Dynamic Learning Community. In conclusion, the developed framework will propose the best library model, the best theory of social media engagement that merges with the best framework for the learning community.

Keywords: Social Media Adoption, Social Media Engagement, Social Media in Academic Library, Learning Community

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DOI: <https://doi.org/10.21834/e-bpj.v9iS118.5459>

1.0 Introduction

Many attempts have been made over the past decade to develop contemporary library models such as Library 2.0 and Web 2.0 that only sit on the library's periphery. These concepts only focus on the system and users have no authority to participate in the library. Until the year 2006, Lankes and Silverstein disagreed and suggested the "participatory library" concept, as it is truly an integrated system where the library system merges, and library patrons become part of the system development process. The authors underpinned the 'conversation theory', which means knowledge is created through conversation and people learn through conversation. Thus, libraries are in the conversation business (Lankes et al., 2007). This concept of the participatory library was then widely adopted in their debate and practice by academic libraries. Many libraries have implied this concept with one main good reason, which is to grab users' attention for a lot of educational purposes. Meanwhile, online interaction is key to the development and continuity of the community (Shakelford & Maxwell, 2012; Hay Thornthwaite, 2019). Therefore, academic libraries have then leveraged new technologies such as social media to advocate participatory service for a lot of educational purposes to develop powerful learning communities. According to Penafior, J. (2018), most of the existing works of literature deal with the use and application of social media in libraries by solely analyzing the type of content posted. In his local environment, the Philippines, only a few look at the usefulness of libraries in using social media. The author reveals that video, link, and text-only posts hit very low engagement. Since libraries focus more on "photo" posts and very little variety, it is difficult to find out that users favor photos over other types of posts. Unfortunately, the research did not include users'

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DOI: <https://doi.org/10.21834/e-bpj.v9iS118.5459>

experience in adopting social media as a factor of low engagement. Also, the author never relates the research to developing a learning community. It is found that Social Media applications are highly used by library users for a lot of non-educational purposes; these applications may badly affect students' academic lives and participatory experiences (Ali et al., 2017). These new technologies are revolutionary, but some of their applications are highly insecure and may lead to inactive participation (Trusoy et al., 2009). To resolve the issues, this study will investigate factors affecting social media engagement in academic libraries to advocate dynamic library participation in the learning community.

1.1 Research issues

To obtain research issues, a preliminary study was conducted to explore the adoption of social media by 5 academic libraries of research universities in Malaysia. The observation using the 'ethnographic' method was conducted in November 2020 by taking a closer look at the social media used, total postings, type of content, and user interaction or engagement towards those postings. These findings show that Universiti Sains Malaysia posted 49 postings in October and gave the highest total followed by UTM, UKM, UPM, and UM. Furthermore, for the sum of reactions (likes) and comments from users or audience, UTM gives the highest reading. Meanwhile, for the sum of shares, users from UKM show the highest reading. **On average, almost all the libraries are facing difficulties in hitting a high total of likes, shares, and comments from users.**

Table 1. Total of postings by universities versus interactions (i.e. likes, comments, and shares)

Universities	Total Posts	Reactions (Like)	Comments	Shares
Universiti Teknologi Malaysia	32	1064	325	129
Universiti Kebangsaan Malaysia	31	421	13	153
Universiti Sains Malaysia	49	58875	34	69
Universiti Malaya	8	185	0	6
Universiti Putra Malaysia	28		1	19

(Source: Facebook, Data as of Oct 2020)

This research is therefore intended to fill the gaps in the existing understanding of the involvement of social media in academic libraries to advocate the dynamic participation of libraries in the learning community.

1.2 Problem Statement

According to the conducted preliminary study, academic library universities in Malaysia are facing a crucial problem in getting high hits about user engagement (such as likes, comments, and shares) in their posting-related activities and knowledge dissemination. Even though thousands of users are following their social media accounts, only a few will like, post, or comment on the content posted on the timeline. As mentioned earlier, various works of literature conclude that complexity, uncertainty, and equivocality become factors affecting social media adoption by users (Zou et al., 2020). Therefore, this study will examine the factors affecting social media adoption by users. Second, even though libraries have done their best effort to support learning with useful information content posted on social media, users are still not interested and do not give proper feedback or actions to the post. Previous studies confirmed users are using social media for a lot of non-educational purposes, and this may have badly affected students' academic lives and participatory experiences (Ali et al., 2017). Therefore, this study will examine the influence of social media engagement on library user participation. Third, when users are participating in library activities, knowledge sharing among individuals in the community will be expanded, thus a powerful learning community can be built. This was supported by (Shakelford and Maxwell (2012) and (Haythornthwaite, 2019) who state that online interaction is key to the development and continuity of the community. Therefore, this study will measure the factors affecting social media engagement to advocate library participation in powerful learning community development.

1.3 Objectives of the Study

The primary goal of this study is to investigate the factors influencing social media engagement in academic libraries and their impact on fostering dynamic learning communities through enhanced user participation. To achieve this aim, this study addresses the following key questions and research objectives:

Research Questions:

RQ1: What are the factors affecting Social Media engagement/adoption in academic library users?

- a) What is the relationship between Social Media acceptance and social media engagement/adoption?
- b) What is the relationship between perceived innovation and Social Media engagement/adoption?

RQ2: What are the factors influencing a participatory library in an academic library?

- b) What is the relationship between social media engagement/adoption and the participatory library?
- c) What is the relationship between empowerment and participatory library?
- d) What is the relationship between the community and the participatory library?
- e) What is the relationship between experience and participatory library?

RQ3: What is the relationship between the participatory library and the learning community in the academic library?

Research Objectives:

RO1: To investigate the factors affecting Social Media engagement/adoption in academic library users.

- a) To examine the relationship between Social Media acceptance and social media engagement/adoption.
- b) To determine the relationship between perceived innovation and social media engagement/adoption.

RO2: To examine the factors influencing participatory libraries in the academic library.

- a) To examine the relationship between social media engagement/adoption and participatory library.
- b) To examine the relationship between empowerment and participatory library.
- c) To examine the relationship between the community and participatory library.
- d) To examine the relationship between experience and participatory library.

RO3: To examine the relationship between the participatory library and the learning community in the academic library.

1.4 Scope of the Study

This study aims to identify the factors affecting social media engagement in academic libraries to advocate participatory service toward a dynamic learning community. Since The National Higher Education Strategic Plan Beyond 2020 aims to further strengthen Malaysian research universities and envision that two Malaysian Universities will be among the top 100 world universities (N. Abdullah, 2017), and considering budget constraints too, this study will focus on research universities in Malaysia only. They are Universiti Teknologi Malaysia (UTM), Universiti Malaya (UM), Universiti Sains Malaysia (USM), Universiti Kebangsaan Malaysia (UKM) and Universiti Putra Malaysia (UPM). According to (Porter & King, 2007), libraries can take advantage of such social media channels to invite participation, with active rather than passive participation being the goal. This was supported by (Mongeon, 2019). Therefore, to provide samples of the study, only active social media users who have followed library social media accounts are a sample of this study. They include academic staff, non-academic staff, undergraduate students, post-graduate students, the library community, and public users who have followed library social media accounts. Last but not least, by having conversational channels that are always open and participating in dialogue with its users, the library can constantly evaluate and refine its programs, products, and services to ensure that these users are getting what they need when they need it (Casey & Avastin, 2006). Therefore, the demographic will consider the gender male and female, age 18 years old and above, locality, and academic background.

2.0 Literature Review

To develop a conceptual framework for this study, three (3) sections are included in this chapter. They are Participatory Library, Social Media Engagement in the Academic Library Context, and Building a Powerful Learning Community.

2.1 Participatory Library

In 2006, Lankes and Silverstein disagreed on contemporary library models and came up with the paper titled "Participatory network: the library as conversation," they then introduced and presented the "participatory library" concept. The authors underpinned the 'conversation theory' and stated that libraries are in the conversation business (Lankes, et al., 2007). While libraries have traditionally been user-focused, this theory expands and gives users more ability to guide the direction of the library service (Casey & Sabatina, 2006; Nguyen et al., 2012). The concept of the participatory library suggests that a library should engage in conversations with its community, and these conversations should inform how the library operates (Lankes, 2014). Until then, Nguyen, L. C. (2014) proposed a framework for the participatory library to explore the changes in the relationship between libraries/librarians and users. He found out that participatory libraries empower users by having a sense of belonging to the community, and providing them with innumerable opportunities and enjoyable experiences, as they are actively involved in library activities. It provides them with **a guideline or a benchmark that assists them in revising their current library model**. Therefore, the recommendation given will be considered in developing a conceptual framework for this study.

2.2 Social Media Engagement in Academic Library Context

Academic libraries have leveraged the use of social media to engage with their users for a lot of educational purposes. Magi et al., (2019) confirm that social media is becoming a powerful additional organ in academic library services in developing countries. In Addition, studies revealed that among the various age groups of students, university students are among the most using social media (Azizi et al., 2019), and almost all of them are library users too. Unfortunately, social media applications are highly utilized for a lot of non-educational purposes; these applications may badly affect students' academic lives and participatory experiences Ali et al., (2017). Therefore, this paper will determine the factors affecting social media users in academic library settings. In searching for what is affecting social media adoption, (Zou et al., 2020) found that social media with a two-way interaction system, where libraries can send messages to online users and have users respond simultaneously influences user engagement. This paper turns out to give good results and contribute to public libraries and their local setting by recommending the best theory to be applied in measuring social media adoption with the most relevant features to be applied. Unfortunately, this paper does not contribute a model as it only compares the theories related and gives the best recommendation for future research. Meanwhile, to know the literature in the local setting, Zolkepli, I. A. (2017) focuses on consumers' media needs and technological Innovation of social media in adopting social media. The author has compared the widely used theories in social media adoption such as theories DIT to other behavior, attitude, and motivation theories (TRA, TPB, TAM, UTAUT, BRT, TCAM, Hierarchy of Needs, Motivation Process Model, MGB). Therefore, the suggestion will be applied

to this study on developing the framework. The weakness of the above literature is they never mention the relationship between social media engagement and with learning community. Indeed, it must be explored since academic libraries are definitely to disseminate knowledge and a lot of educational purposes through social media.

2.3 Building a Powerful Learning Community

Once a playground has been facilitated with a favorable atmosphere that has been promoted by the library, users appear to be more active participants in the activity of the library, especially when they are encouraged to be involved. This trend has resulted in a "learning community" (I. 5, I. 11, and I. 18). According to Fronk, E. (2018), libraries are using social media to provide online services. They do so well in person, namely, build communities, extend professional experiences, and even contribute to solving larger social problems in their community. Meanwhile, online interaction is key to the development and continuity of the community (Shakelford & Maxwell, 2012; Haythornthwaite, 2019). In addition, Picciano, A. G. (2017) examines theoretical frameworks and models that focus on the pedagogical aspects of online education. Therefore, the model framework will be adapted for this study.

2.4 Underpinning Theories and Frameworks

To enhance the understanding of the primary problem in this area, many key theories are involved. There are mainly four (4) key theories considered in this analysis as a fundamental theory.

2.4.1 Participatory Library

As suggested by Nguyen, L. C. (2014) in his research titled, A Participatory Library Model for University Libraries proposed a framework for the participatory library, the proposed framework is taken into consideration to examine the participatory service in the academic library environment. It is necessary to put community, empowerment, and experience together and none of the three can be left out; otherwise, only separate sections of the model would be available. In other words, phenomena do not stand alone. Therefore, in the study, the author suggested three (3) main elements for building a participatory library as below:

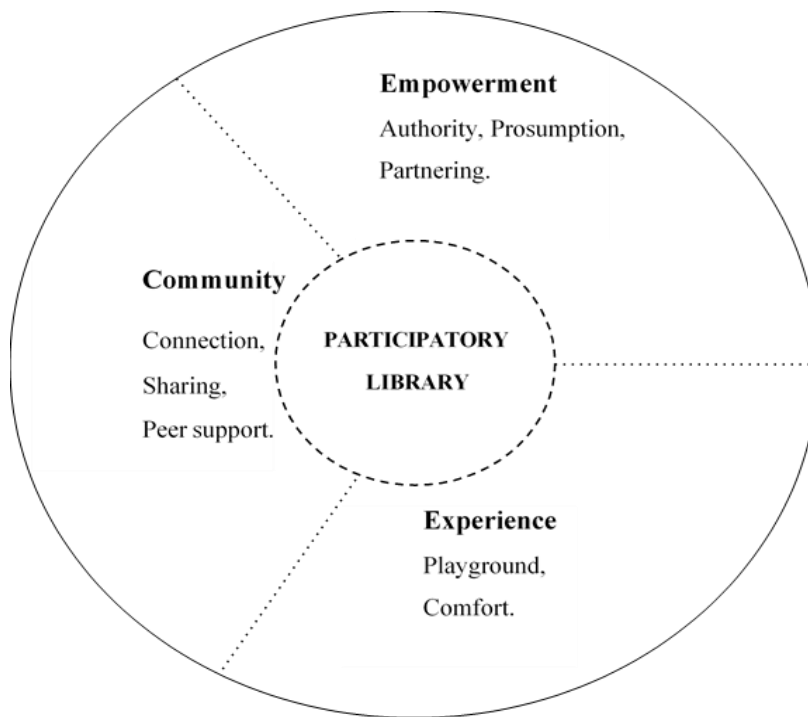


Fig 1: Centre of the participatory library model
(Source: Nguyen, L. C. 2014)

2.4.2 Social Media Engagement

Rogers (2003) points out five (5) characteristics of the IDT. They are Relative Advantage, Compatibility, Trialability, Observability and Complexity:

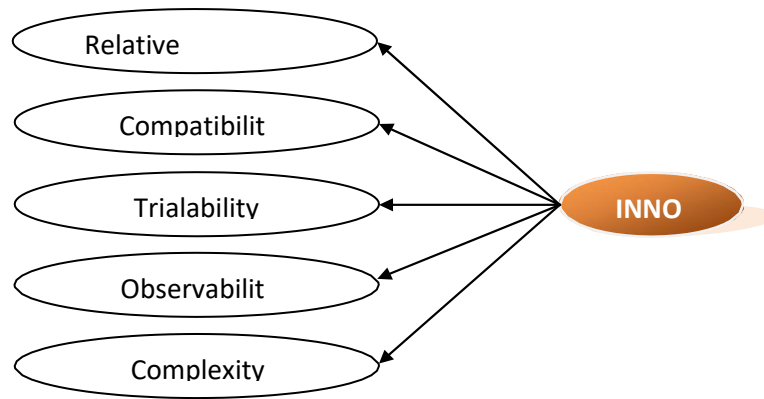


Fig. 2: Characteristic of Innovation Diffusion Theory (IDT)
(Source: Rogers, 2003)

Relative Advantage is the degree to which an innovation is perceived to be better than that the one is replaced. The greater the perceived relative advantage of an innovation, the higher the rate of adoption. Meanwhile, compatibility is the degree to which an innovation is consistent with current beliefs or existing values, past experiences, and the future adopter's needs. Innovations that are more consistent with the existing principles and expectations of a social system would be more quickly embraced than incompatible innovations. Incompatibility is also an issue faced by the library as innovation is implemented in a rapid change. On the other hand, complexity is the degree to which an innovation is perceived as difficult to understand and use. Fresh concepts that are easier to understand would be adopted more quickly in most situations. If the complexity of innovation outweighs the advantages, then it is unlikely that innovation will be implemented. At the same time, trialability is the degree to which, on a limited basis, innovation is evaluated. New ideas that can be tried on a partial basis will generally be adopted faster than innovations that are not divisible. Through trialability, the potential adopter would be able to see innovation outcomes or benefits. Finally, observability – is the degree to which the result of innovation is apparent to others. Zolkepli, I. A. (2017) has compared DIT to other behavior, attitude, and motivation theories (TRA, TPB, TAM, UTAUT, BRT, TCAM, Hierarchy of Needs, and Motivation Process Model, MGB). The innovation characteristics derived from Rogers' Diffusion of Innovation Theory (2003) found that three features have a direct and indirect impact on bridging the real needs with the adoption of social media: **(i) Relative Advantage, (ii) Compatibility, and (iii) Observability**. This implies the importance of innovation characteristics in enhancing the adoption behavior of users that affect the decision to adopt social media. Hence, the relational element of innovation characteristics plays an important role in the adoption of social media. As per suggestion, only these three main elements will be selected to construct Perceived Innovation.

2.4.3 Social Media Acceptance

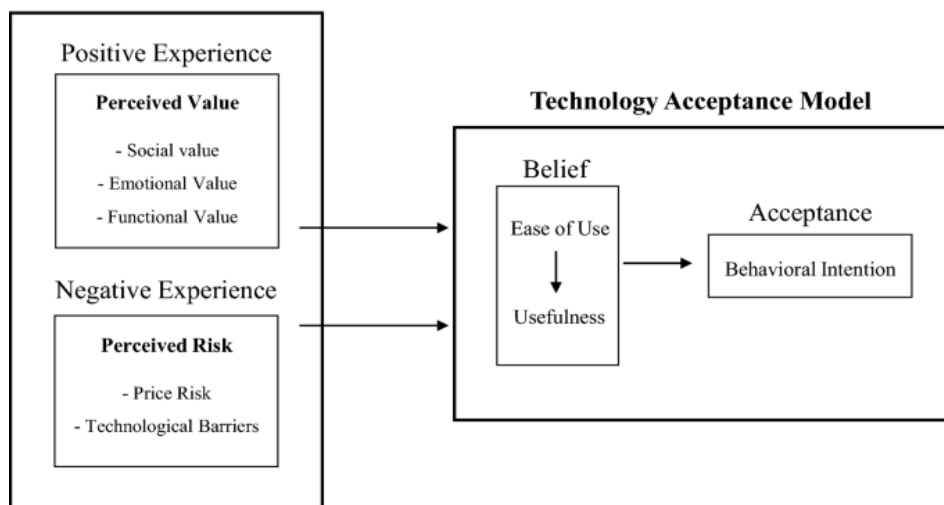


Fig. 3: Technology Acceptance Model (TAM)
(Source: Davis, 1989)

Meanwhile, the theory of the Technology Acceptance Model (TAM) by Davis (1989), has been popularly applied as a foundation to understand user experiences on how they develop behavior toward social media as a technology medium Zolkepli, I. A. (2017). This theory too has been widely adopted in many works of literature. Overall, there are three (3) elements in the Social Media Acceptance

model. They have perceived usefulness, ease of use, and external variables. The TAM has received extensive empirical support through validation, application, and replication in many online contexts to gauge user perceptions of system use and the probability of adopting an online system (Mathieson, 1991; Plouffe, Hulland, & Vandenbosch, 2001; Plouffe, Vandenbosch, & Hulland, 2001; Chen, Gillenson, & Sherrell, 2002; Kamarulzaman, 2011; Yousafzai & Yani-De-Soriano, 2012). The logic inherent in TAM is that the easier the mastery of the technology, the more useful it is perceived to be, thus leading to a more positive attitude and greater intention towards using the technology, and, consequently, greater usage of the technology. Since the TAM has been applied and proved by many studies previously, it aids in the understanding of this study on social media adoption among library users.

In addition, (Magoi et al., 2017) strongly recommended only the use of **perceived usefulness, ease of use** for Social Media Acceptance and **Relative Advantage, Compatibility, and Observability** for Perceived Innovation from IDT theories to identify social media adoption among users. Therefore, the suggestion will be considered in developing a framework for this study. Lee et al., (2014) added that Perceived value would be a key multidimensional determinant of behavioral intentions in social media.

2.5 Learning Community

First, the concept of a learning community as promoted by Garrison, Anderson & Archer (2000) and Wenger and Lave (1991) is emphasized. A course is conceived of as a learning community. This community can be extended to a larger academic program. Second, it is understood that interaction is a basic characteristic of the community and permeates the model to the extent needed. This Multimodal Model of Online Education attempts to address the issues that others, particularly Terry Anderson, have raised regarding elements that might be needed for an integrated or unified theory or model for online learning education. Picciano, A. G. (2017) came out with theoretical frameworks and models that focus on the pedagogical aspects of online education, seeking an integrated model that can be applied to multiple learning concepts such as OCL, ODL, etc. The theory of Terry Anderson was highlighted. Key to this model is the assumption that online education has evolved as a subset of learning in general rather than a subset of distance learning. This article is an adaptation of a chapter from the author's upcoming book, provisionally titled Online Education: Theory and Practice, which will be published by Routledge/Taylor & Francis in 2018. Therefore, this framework is adopted in this study.

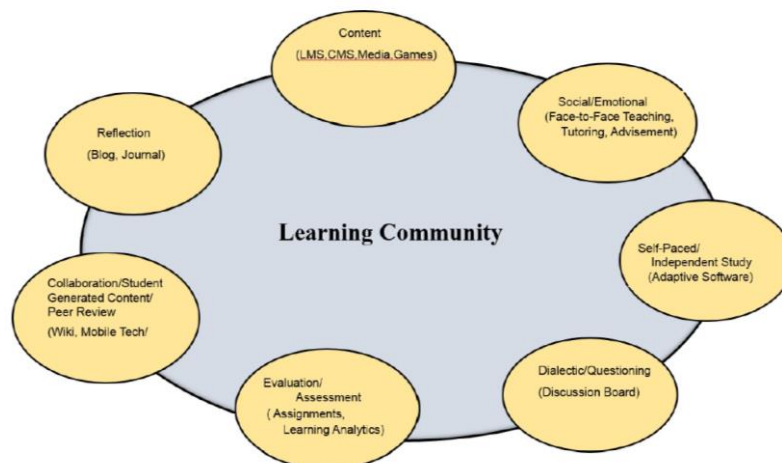


Fig. 4: Multimodal Model for Online Education
(Picciano, A. G. (2017))

3.0 Development of Theoretical Framework

User participation is considered to play an important role in establishing brand-customer relationships as a strategic imperative (Wang & Fesenmaier, 2004). However, few effective measurement mechanisms have been available to verify these assertions empirically. By taking all the important elements from factors affecting social media adoption by users, ways to increase participatory services, and building a powerful learning community, all of the suggestions from previous literature are applied to propose a theoretical framework to increase user participation in academic libraries. The framework has been developed by combining four constructs as shown in Fig. 5.

4.0 Findings

Realizing the evolution of technology and the fact that knowledge is created through conversation has made contemporary library models such as Web 2.0 and Library 2.0, out of date since they solely concentrate on the system and do not include users at all. Therefore, a new conceptual framework has been developed by combining the best theories suggested by previous literature. Firstly, Nguyen, L.C., (2014) theory became the best framework for the participatory library since it involves user participation and became the absolute modern framework to replace the traditional library models. Secondly, the Innovation Diffusion Theory, IDT theory (2003), and Technology Acceptance Model (TAM) by Davis (1989) are adopted to explain precisely social media engagement as suggested by a

previous study by Zolkepli, I. A. (2017). Finally, the Theory of Terry Anderson (2017) was adopted as it pedagogical aspects of online education as well as toward dynamic learning community.

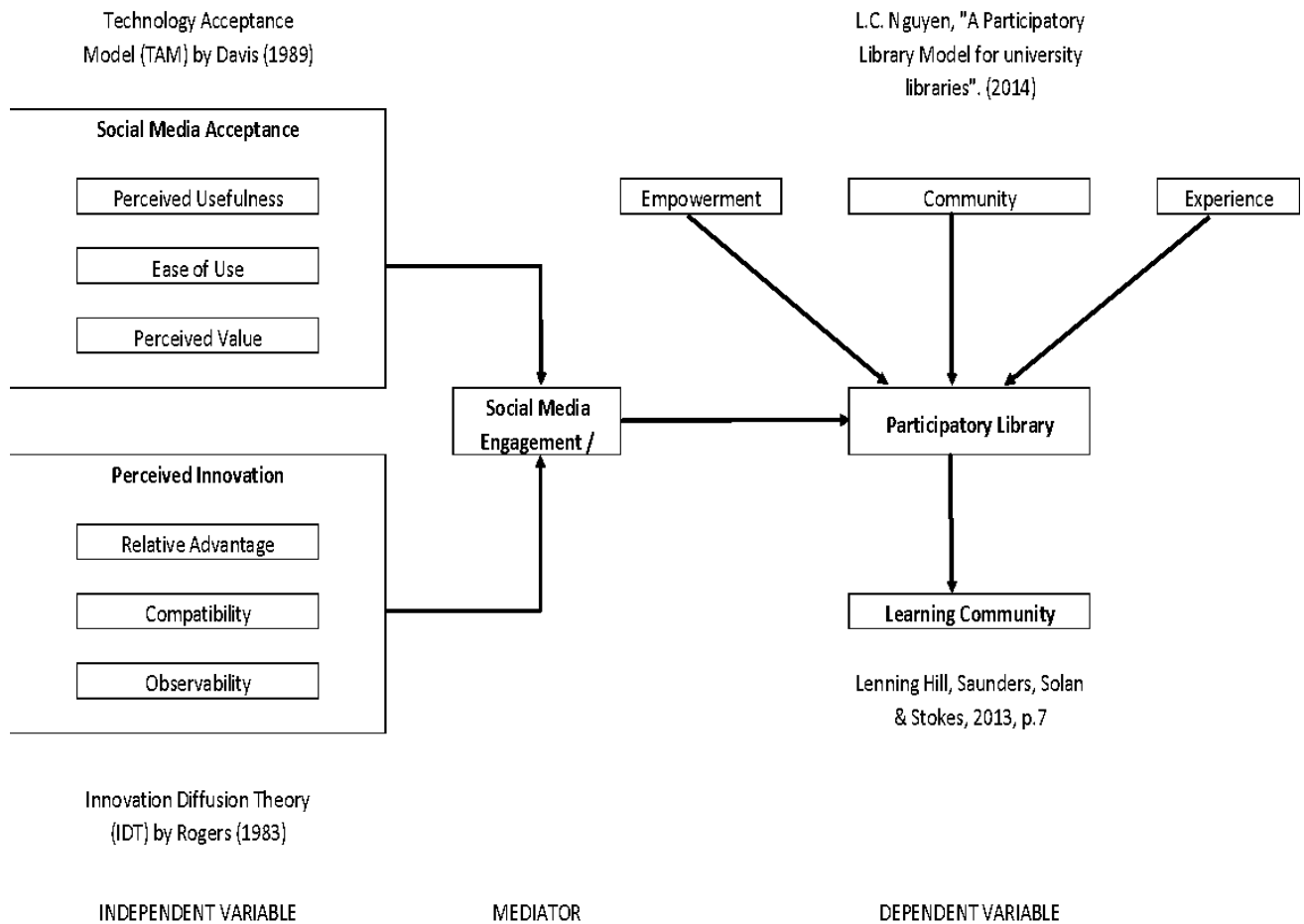


Fig. 5: Proposed Theoretical Framework
(Nguyen, L.C.(2014), (Magoi et al., 2017), & Abrizah, A. (2019) ,and Picciano, A. G. (2017))

5.0 Discussions

A conceptual framework of social media adoption in academic libraries to advocate dynamic participatory libraries to develop a dynamic learning community has been developed. Starting from participatory libraries, **Nguyen, L. C. (2014)** suggested three (3) main elements for building a participatory. They are empowerment, community, and experience, meanwhile for social media adoption, perceived usefulness, ease of use, and perceived value for social media acceptance. Meanwhile, **Innovation Diffusion Theory, IDT theory (2003)** was also adopted with an explanation of Relative Advantage, Compatibility, and Observability for Perceived Innovation. In addition, the **Technology Acceptance Model (TAM) by Davis (1989)** is also adopted to explain the theory of social media acceptance among users. Finally, for the learning community, the **Theory of Terry Anderson (2017)** was adopted, and this paper came out with a conceptual framework that includes all the important elements in social media engagement to advocate a participatory library for the learning community.

6.0 Conclusion

The Theoretical Framework has been developed by taking the best suggestions from the preliminary studies. Finally, this research contributes to research institutions and future researchers as **this study provides an adopted conceptual framework that can be useful to other researchers. The framework includes social media adoption, a participatory library, and a learning community.**

Acknowledgments

We wish to extend our heartfelt appreciation to the School of Information Science, College of Computing, Informatics and Mathematics, Universiti Teknologi MARA, for their support and assistance. We greatly appreciate their dedication to promoting scholarly research.

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