# Social Media Success for Academic Knowledge Sharing in Indonesia (Conceptual Model Development)

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# Social Media Success for Academic Knowledge Sharing in Indonesia (Conceptual Model Development)

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**Abstract**. The aim of this study is to investigate how success is the social media as a tool for knowledge sharing among scholars in Indonesia. To evaluate the success of social media we develop a model base on Delone and McLeane IS Success Model. In this article, we would like discuss the process of developing the research model. In developing the model, we conduct literature review from knowledge management, social media and IS Success Model area from previous study. This study resulted in the social success model for academic knowledge sharing in Indonesia.

## 1. Introduction

The research community is recognized as one important element in creating reliable and resilient researches in universities [1]. Nowadays, many universities in Indonesia faced with various problems that the program to create a reliable researcher could be inhibited [2]. The small number of experienced researchers in certain fields followed by the uneven distribution of their presence on college only available in a few major colleges and famous only which can affect the reliable researchers [2]. Universities in Indonesia spread from Sabang to Marauke with most colleges have faculties with qualification lower than doctorate lecturers. All conditions above resulted in a remarkable gap among educational institutions in Indonesia. This resulted in a slowdown in creating the reliable researchers in Indonesia.

Virtual community is one of potential solution to create research community among academician in Indonesia. Using information technology many features could be exploiting to enhance academic collaboration and networking [3]. One of potential application is social media. Social media is powerful applications that enable their member in sharing, chatting, collaborating and sharing document via internet [4]. However how success social media is in facilitating academic in Indonesia to sharing their experience and knowledge in virtual communities is still do not identify yet. This study is interested to investigate the phenomenon. This article focus on develop model that in future could apply in investigate the success of social media for knowledge sharing.

## 2. Literature Review

### 2.1. Social Media

Koplan and Haenlein define social media as a collection of internet-based application that provides a web 2.0 interactive services among individuals and communities to interact, discuss, create and modify content [4]. Social media is now believed to be a tool that provides tremendous potential for

the organization to improve the performance of the company [5].  To get the maximum benefit from the potential of social media, the company developed a variety of strategies for the use of social media in their business activities. Hanna et al  [5] proposed a concept to develop a strategy for the utilization of social media in an organization that they are familiar with the term "social media ecosystem". In the concept of this, organization need to understand that the use of social media in supporting the activities organized needs to be aligned, by appropriately combining social media means in achieving organizational goals

### 2.2.   Knowledge Sharing

Knowledge sharing is the main activity in knowledge management activities. Knowledge sharing allows individuals in an organization to work together to exchange information, ideas, suggestions, ideas and experience in the end creating the formation of a new knowledge.

Knowledge sharing is a mechanism of the spread of knowledge of the organization to all members of an organization. One of the leading theories relating to knowledge creation comes from Nonaka [6]. In theory, Nonaka argues that knowledge is created only through interaction between people or between organizations. Barthold and Srivastava [7] suggested that knowledge sharing as sharing expertise, information, advice, and ideas between individual to individual within an organization

### 2.3.   IS Success Model

The use of information systems in an organization is expected to have a positive impact. In order to ensure that any implementation of the information system is a success, then knowing the elements that influence the success of information systems becomes very attractive to researchers.

Measurement of the success of an information system has received wide public attention from researchers since long. DeLone and McLean has developed a model that can be used as a guide in order to successfully implement the IS organization [8]. They propose six elements related to IS success is: "quality system", "information quality", "quality services", "use", "user satisfaction" and the "net benefit". DeLone and McLean conduct a revisit for their successful model for the implementation of  IS [9]. The model is tested on E-commerce applications. And found that the model of IS success was successfully tested in the context of e-commerce [10].

## 3.  Research Method

In develop the research model we do some stage. We conduct literature review to investigate the current state of social media, knowledge sharing and is success model. Some reputable database journal such as Sciendirect, Emerald, ProQuest, and Google Scholar we use in this literature review process. Result from literature review is became foundation for us to develop the research model.

## 4.  Result and Analysis

The use of information systems in an organization is expected to have a positive impact. In order to ensure that any implementation of the information system is a success, then knowing the elements that influence the success of information systems becomes very attractive to researchers.
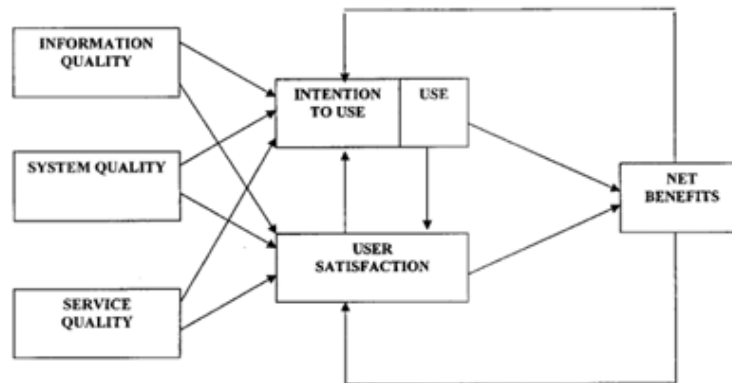
**Figure.1**. IS Success Model

IS success model has been used successfully and tested empirically in the context of various information systems such as e-commerce, e-government, and e-banking. But until now the development of IS success model in social media in the context of knowledge management is still very little in to be explored. Research related to the successful model of social media to share knowledge among researchers still rarely performed. Sucess Model of information system developed by DeLone and McLean  [8] and [11] is the basis of this research to be developed into a model that can be specifically used as a reference in the utilization of social media for knowledge sharing.

Research in the field of social media and KS that has done this time includes conceptual models, case studies, empirical studies (e.g., [5, 12-15])  One of the studies related to the social media and KS by Razmerita et al. [14]. They argue that there are principles in common between social media and KS [14]. Social Media has shown a positive role in KS. Some researchers have successfully identified the benefits obtained through the use of social media in KS [14, 16]. However, although the principle believed social media synergy with KS but researchers also found the constraints faced in the implementation of social media in KS [17]. KS in social media can be achieved through a variety of tools that allows for creating, codify, organize, and share knowledge, but also to socialize and improve personal network and collaborate in order to organize and create new knowledge[14]. Taking into account the characteristics of social media and knowledge sharing, the successful model of information system [11] will be developed.

*Research Model*
A research model developed by applying the theory of IS Success Model [11] as a base. In develop the research model we do enrich the conceptualization of variable in indicators. The aim of reconceptualization the definition of variable and the indicator is to make sure the variable and indicators that measure it would appropriate with our research goal. We hope that the indicators in each variable so that it accommodates the issues and needs of the user and the system in the context of the use of social media. In addition we also incorporate a user characteristic variable that is recommended by Petter, DeLone and McLean [9] to be explored.
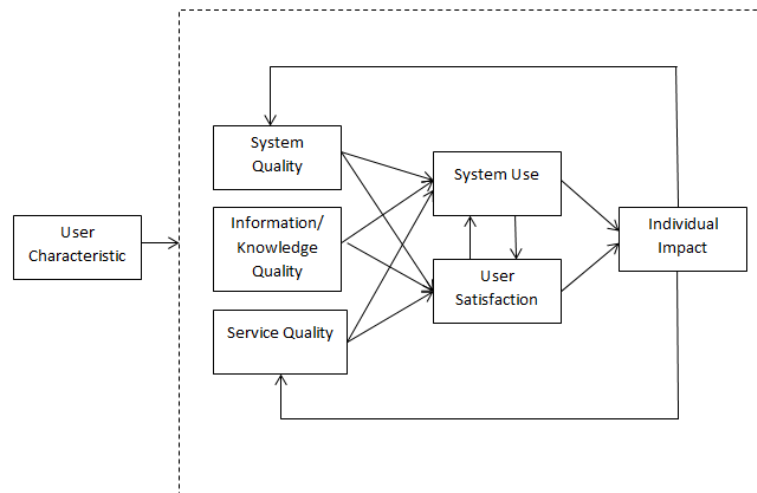
**Figure 2.** Research Model

The explanation of all variable in our research is describes as follow:

A.    *Information / Knowledge*

Information and knowledge becomes the most important commodity for academics and researchers in Indonesia to develop them. When used as a medium of social media to share knowledge and information, the number of issues arise, such as whether the information, knowledge can be trusted? Is it relevant? Whether delivered as a whole? Is it easy to understand? Is it easy to access? and others. The issue is not the same if the application used is an internal application that is     built within an organization, which has no validation, filter, mechanisms to ensure that the information and knowledge that is consumed by the user is guaranteed by the institution. IS Success Model theory has to accommodate the variable quality of the information / knowledge but the indicators used has not significantly describe user needs for information and knowledge in the context of social media applications. So, we enrich by adding new indicators as contained in Table 1.

**Table 1.** Indicator for Information/Knowledge Quality

| Indicators |
| --- |
| KI1: Information / knowledge is delivered in social media    must be reliable (Believability) |
| KI2: Information / knowledge is delivered in social media must be objective (Objectivity) |
| KI3: Information / knowledge is delivered in social media should be accurate (Accuracy) |
| KI4: Information/knowledge presented in social media should be reputable (Reputation) |
| KI5: Information/knowledge presented in social media should have the value of benefits (Value-added) |
| KI6: Information/knowledge presented in social media should be relevant (Relevancy) |
| KI7: Information/knowledge presented in social media should be on schedule needs (Timelines) |
| KI8: Information/knowledge presented in social media should be intact (Completeness) |
| KI9: Information/knowledge presented in social media should be packaged in small amounts of relative data (Appropriate amount of data) |
| KI10: Information / knowledge is delivered in social media should be interpreted properly (Interpretability) |
| KI11: Information / knowledge is delivered in social media should be easily understood (Ease of Understanding) |
| KI12: Information / knowledge is delivered in social media should be presented consistently (Representational consistency) |
| KI13: Information / knowledge is delivered in social media should be exposed briefly (Concise Representation) |

*B.     User characteristics*

Users become the main actors in the use of social media applications. In contrast to the use of information systems in an organization that binds the user should adhere to a mechanism of information systems they build, then the social media applications users are not tied to specific rules, so that utilization would be very influence by user characteristic. In research relating to the IS success model information systems do Petter, DeLone and McLean [18] found that the role of the user characteristics was affecting the pattern of information system success. In this study, we will also explore whether user characteristic and also has a role in the utilization of social media by academics in Indonesia. The indicators are describing as follow:

**Table 2.** Indicator for User Characteristic

| Indicators |
| --- |
| UC1: I find the use of Social media application is the right choice (Attitude Toward Technology) |
| UC2: I feel enjoy utilizing Social Media (Enjoyment) |
| UC3: I believe the Social media application that I use (Trust) |
| UC4: Social media application that I use meet my   expectations (User Expectation) |

*C.     System Quality*

System quality is defined as the desirable characteristics of an Information System quality [19]. In measure individual impact we develop indicator that refer to Gable, Sedera and Chan [19]. The indicators are describing as follow:

**Table 3.** Indicator for System Quality

| Indicators |
| --- |
| SMQ1: Social media application should be easy to use |
| SMQ2: Social media application should be easy to learn |
| SMQ3: Social media should be easily accessible application |
| SMQ4: Social media application should be able to meet the need of users |
| SMQ5: Social media application must have features that support information sharing activity |
| SMQ6: Social media application must be supported by a system That is accurate |
| SMQ7: Social media application should be accessible on various devices (Flexibility) |
| Social media should be reliable application (Reliability) |
| SMQ8: Social media application should be efficient when used (Efficiency) |
| SMQ9: Social media application should be effective when used (Effective) |
| SMQ10: Social media application should be able to satisfy user (Sophistication) |
| SMQ11: Social media application must be integrated with other applications that support (Integration) |
| SMQ12: Social media application should be customized (Customization) |

*D.     Service Quality*

Quality of the service or support that system users receive from the IS organization and IT Support personnel in general or for a specific IS [8]. The indicators are describing as follow:

**Table 4.** Indicator for Services Quality

| Indicators |
| --- |
| SQ1: Social media application should have a fast response when used (Responsiveness) |
| SQ2: Social media applications should have good accuracy (Accuracy) |
| SQ3: Social media application is always running and operate properly while in use (Reliability) |
| SQ4: Social media application developers should be supported by a competent team (Technical Competence) |
| SQ5: Social media application developers should be supported by staff who empathize with the user (Empathy of personal Staff) |

*E.     System Use*

System Use is define as degree and manner in which staff and customers utilize the capabilities of an IS [20]. In measure individual impact we develop indicator that refer to Wu and Wang  [20]. The indicators are describing as follow:

**Table 5.** Indicator for System Use

| Indicators |
| --- |
| SU1: I use social media to communicate knowledge and information (Communicate Knowledge and Information) |
| SU2: I use social media to share knowledge and general information (Share General Knowledge and Information) |
| SU3: I will use social media to share specific knowledge and information; (Share Specific Knowledge and Information) |

*F.     User Satisfaction*

Individual impact is referring to users' level of satisfaction with the IS. In measure individual impact we develop indicator that refer to Delone and Mclean [8]. The indicators are describe as follow:

**Table 6.** Indicator for User Satisfaction

| Indicator |
| --- |
| US1: I am satisfied with the Social media application that I use (general satisfaction) |
| US2: I am satisfied with the knowledge and information I got (knowledge/information satisfaction) |
| US3: I am satisfied with the features available on Social media application (System feature satisfaction) |

*G.     Individual Impact*

Individual impact is refer to the extent to which IS are contributing to the success of individuals [19]. In measure individual impact we develop indicator that refer to Gable, Sedera and Chan [19]. The indicators are describing as follow:

**Table7.** Indicator for Individual Impact

| Indicators |
| --- |
| II1: Social Media is one of my forums in learning (Learning) |
| II2: Social Media increases my awareness on certain issues (Awareness/ Recall) |
| II3: Utilizing social media to make decisions which I take to be more effective in working (Decision Effectiveness) |
| II4: Utilizing social media makes me productive at work (Individual Productivity) |

**5.  Conclusion**

Result of this study is the research models that appropriate to use in our investigation. Our next agenda is to develop the research instrument and validate the instrument in order to ensure the instrument meet the criteria in validity and reliability test.

**Acknowledgments**

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