



Analysis Of Factors That Influence The Use Of Social Media By Small And Medium Enterprises

Muhammad Ardiansyah, Peni Sawitri

¹Department Of Business Information System Management Master Program , Gunadarma University, Jakarta, Indonesia; ²Faculty Of Economic, Gunadarma University, Jakarta, Indonesia.
Email: ardyan@gmail.com, peni@staff.gunadarma.ac.id

ABSTRACT

This study aims to find out the factors that influence social media usage among small and medium enterprises (SMEs). Using quantitative approach, this study examined the influence of four factors from Diffusion Of Innovation (DOI) theory toward social media usage within SMEs. Data collection for this study was conducted by online questionnaire from SMEs in Jakarta, Jawa Barat and Banten, Indonesia. Statistical analysis with multiple linear regression was used to test the hypotheses. The study found that interactivity and compatibility have positive and significant influence toward social media usage within SMEs.

Keywords : Social Media, SMEs, Diffusion Of Innovation, Digital Marketing

1 INTRODUCTION

Based on data published by [8] among 150 million internet users in Indonesia, more than 80 % admit that they use some social media. The most common used social media in Indonesia is Facebook, Instagram and YouTube. Social media is one of the contributors to the growth of online businesses in Indonesia. It provides a platform that allows users to exchange images, text, videos and even hyperlinks to connect to other websites. Even now Facebook and Instagram as social media providers offer customized advertising services that allow businesses to target audiences with various demographic criteria. Kemp [8] states that online businesses can target 130 million users with Facebook ads and 62 million users with Instagram Ads. The data is measured based on the number of active users each month.

Previous studies have been conducted relating to the factors that influence social media usage by SMEs. Al Rahbi [2] stated that according to research conducted by taking 205 SMEs samples in Oman, around 66% of them use at least one social media, which indicates social media is widely accepted by SMEs in Oman for various reasons. In addition, two-thirds of the 34% non adopter state that they plan to adopt future use. The study also found that factors from technology, organization and environment context significantly influence social media usage by SMEs. Odoom, Dorson and Acheampong [9] in Ghana found that interactivity, cost effectiveness and compatibility positively and significantly influence social media usage by SMEs. In Indonesia context, study by [13] with 84 SMEs in Temanggung and Magelang found that interactivity, compatibility and cost effectiveness are three main factors that drive SMEs to use social media. In addition, the study also found that improvement in area of customer relationship, sales, marketing and internal operation are few of main advantages SMEs get from using social media in their business.

The analysis in this study will be based on the Diffusion Of Innovation (DOI) theory. Based on past research, study will examine the influence of interactivity, compatibility, cost effectiveness and trust toward social media usage by SMEs.

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Social Media

Kaplan and Haenlein [7] define social media as "internet-based applications that allow users to create and share content". They mention that social media was first created in 1979, when Tom Truscott and Jim Ellis of Duke University created Usenet, a discussion system that allowed internet users to publish a message, then when Bruce and Susan Abelson discovered "Open Diary" in 1998. Open Diary is the first social network where users in the form of members of a particular community share their diaries online and during this time the word "blog" is used for the first time. Before the development of Web 2.0, users only used the browser to find information by reading from various sources or watching videos. Users were considered consumers, not participants.

Ritzer and Jurgenson [14] said that Web 2.0 represents the second level in the development of the internet that is named "User Generated Content (UGC)". Internet users are transformed from consumers or participants to "prosumer" which means they consume and also produce media [14]. This new reach enables applications and dynamic interactions within social media to be carried out.

2.2 Diffusion Of Innovation (DOI) Theory

Rogers [15] define innovation as an idea, practice, or object that is perceived as new by an individual or other unit of adoption [15], p. 12. The diffusion of innovation is the process of the innovation being introduced in a social system through varied communication channels over time [15]. Diffusion of Innovation (DOI) theory emphasises the role of the characteristics of the technology on adoption [2]. Previous studies suggested that DOI is commonly used to evaluate the adoption of an innovation in organizational context, including SMEs.

2.3 Factors Influencing Social Media Usage

Based on past research, this study examines influence of four factors : compatibility, cost effectiveness, trust, and interactivity. The preliminary model of social media usage at SMEs is as follows:

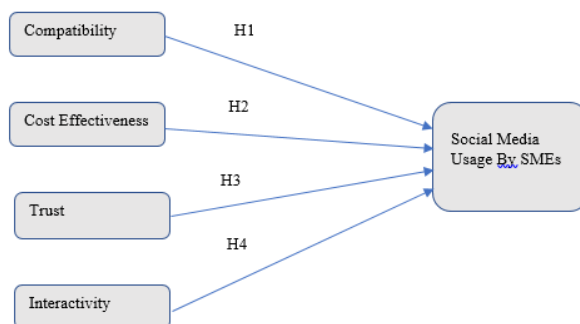


Figure 2.1 Preliminary model of the study

2.3.1 Compatibility

Compatibility is the first factor that is considered to affect the company's decision to use new technology. Previous studies have found that the compatibility of social media with existing technology has an effect on the use of social media. Parveen, Jaafar and Ainin [1]) stated that social media is easily accepted by organization because it is easy to use and suitable with the technology that has been used by organization. To examine this effect, the following hypothesis is proposed:

H1 : Compatibility positively and significantly influences social media usage

2.3.2 Cost Effectiveness

Cost effectiveness is another factor that is examined for its effect toward social media usage. Purwantini[13] stated that cost effectiveness is one of the factors that influence the use of social media by SMEs. To examine the effect of cost effectiveness on the use of social media, the following hypothesis is proposed:

H2 : Cost effectiveness positively and significantly influences social media usage

2.3.3 Trust

Past research has found that trust is another factor that influences company's decision to use social media. Al Rahbi [2] found this factor influenced the decision of SMEs in Oman to use social media. This factor refers to consumer confidence that their security is guaranteed while using the technology. To examine this factor, the following hypothesis is proposed:

H3 : Trust on social media positively and significantly influences social media usage

2.3.4 Interactivity

The final factor that will be examined in this study is social media interactivity. Social media has some interactive features like text, image, and video. Social media enables company to communicate and get responses from their customer. Odoom *et al* [9] found that technology interactivity had a significant influence on the company's decision to use social media. To examine this factor, the following hypothesis is proposed:

H4 : Social media interactivity positively and significantly influences social media usage

3 METHODOLOGY

3.1 Research Approach

Research approaches are usually categorized into quantitative, qualitative, and mixed-methods. Quantitative methods can be simply defined as techniques relating to the collection, analysis, interpretation, and presentation of numerical information. While qualitative methods can be defined as techniques relating to the collection, analysis, interpretation and presentation of narrative information [11]. Research approach in this study is quantitative method. This method can be used to investigate causal relationship by observing variables on existing effect and looking back for the factors that might be the cause through certain data.

3.2 Sampling Method

The population in this study is SMEs located in Jakarta, West Java, Banten and surrounding areas that have used social media in their businesses. The characteristics that must be possessed by the respondents are the owner, manager or admin who knows

the level of use of social media at SMEs. The sample selection in this study uses non-probability techniques with purposive sampling method. The amount of samples chosen for this study is 100 samples.

3.3 Data Collection

Data collection in this study was conducted by distributing questionnaires to participants through Google Docs. The data collection phase is carried out in August and September 2019.

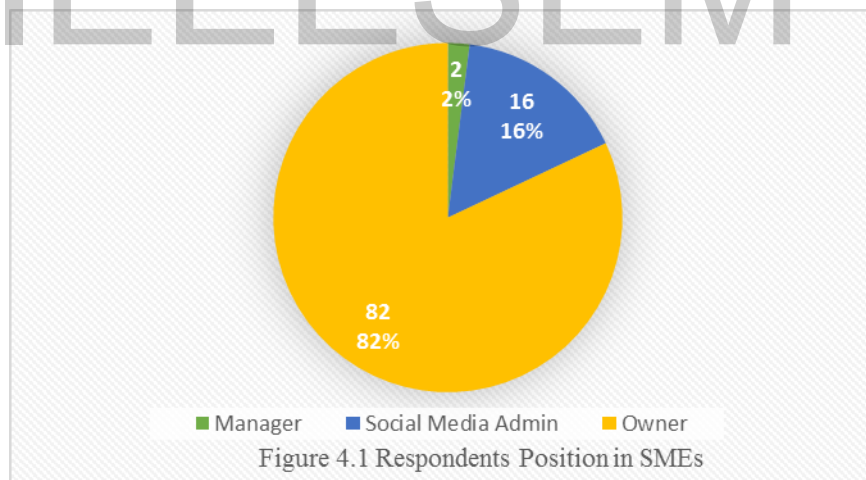
3.4 Data Analysis

Data analysis in this study was carried out with SPSS with multiple linear regression techniques. Regression is an efficient statistical tool used to investigate the relationship between a given number of variables [3]. The variables that will be tested in this study are divided into two, independent variables and dependent variable. The independent variable is represented by factors from DOI theory: compatibility, cost effectiveness, trust and interactivity. The dependent variable is represented by the SMEs decision to use social media.

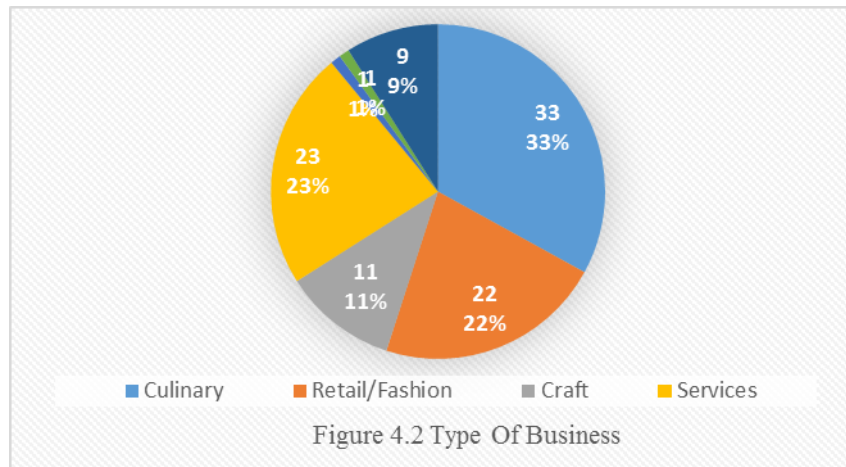
4 RESEARCH RESULT AND DISCUSSION

4.1 Demographic Information

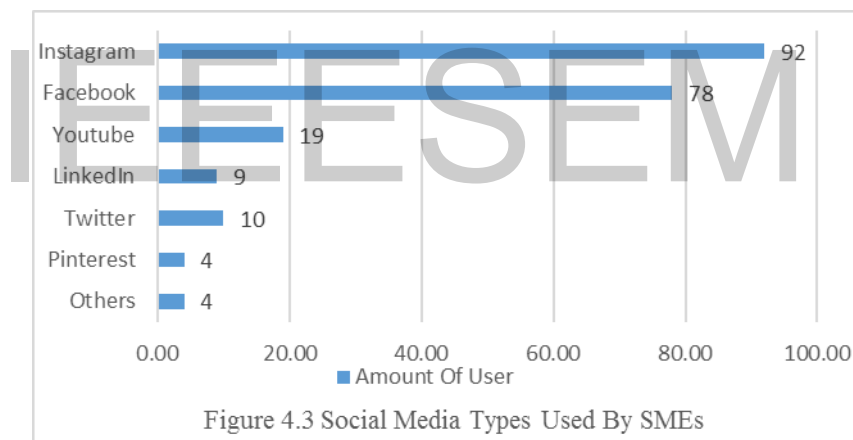
This section contains an explanation of demographic information from respondents who participated in the survey. Among 100 respondents who filled out the questionnaire, 82 of them were owners of SMEs businesses. Then 16 social media admins and 2 managers. Figure 4.1 below is a summary of information about the position of respondents who filled out the questionnaire.



In terms of the type of business, culinary is the most type of business SMEs. As many as 33 percent of respondents came from culinary businesses. The number was followed by services which accounted for 23 percent and fashion retail businesses as much as 22 percent. Details about the types of SMEs businesses that participated in the survey can be seen in Figure 4.2 below.



Furthermore, the survey also identified what types of social media currently used by SMEs companies. In this demographic question, respondents are given the choice to fill more than one type of social media through questions in the form of checkboxes. From the survey results, Instagram is known as the most widely used social media by SMEs with 92 voters. Other social media that are widely used are Facebook, Youtube, LinkedIn, Twitter and Pinterest. Figure 4.3 below describes the types of social media used by the majority of SMEs.



4.2 Reliability and Validity Test

Reliability

Reliability measures the extent to which a survey will produce similar results in different circumstances, assuming no elements have changed [14] p. 41. Simply stated, reliability can be interpreted as the level of internal consistency of each factor contained in the measurement instrument [2].

In this study, the reliability test was performed using Cronbach's alpha statistical instruments on IBM SPSS 25. Cronbach's alpha measures reliability with coefficient levels from 0 to 1, with a minimum coefficient of 0.7 as an indicator of an acceptable level of reliability [2]. From the analysis conducted with IBM SPSS 25, it was found that the survey had good internal consistency

and the survey was reliable. Table 4.1 displays the results of the Cronbach's alpha coefficient for each variable in the questionnaire.

Table 4.1 Reliability Test Result

No	Variables	Item	Reliability (Cronbach's alpha)
1	Social media usage	13	0.878
3	Compatibility	3	0.818
4	Cost Effectiveness	3	0.747
5	Trust	3	0.838
6	Interactivity	3	0.890

Validity

In this study, the validity test was performed using the Pearson moment bivariate colerration method on the IBM SPSS 25 software. According to the Pearson moment technique, an instrument is valid if it has a calculated R value > R table. By using a significance of 0.05, all instruments in the study fulfill the R value requirements which is greater than R table and can be declared valid.

4.3 Normality Test

The purpose of the normality test is to find out whether the dependent variable and independent variables have a normal distribution or not. In this study, the normality test is done by observing the P-Plot probability graph. Ghozali [4] (pp. 161-163) states that the regression meets the assumption of normality if the P-Plot image shows dots that follow and approach diagonal line. As shown in the P-Plot graph below the scattered points following and approaching the diagonal line, it is assumed that the data in the analysis meets the normality test.

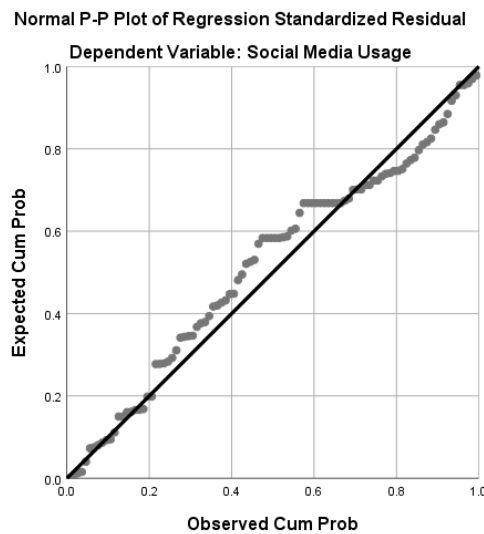


Figure 4.4 P-Plot Graph

4.4 Multicollinearity Test

Parveen [11] stated that multi-collinearity occurs when there is a strong dependency between predictor variables. Al Rahbi [2] states that multicollinearity can be interpreted as dependence on independent variables. One of the causes of multicollinearity is when there is a strong relationship between two or more variables. Multicollinearity is identified by observing the value of VIF (Variance Inflation Factor) and TOL (Tolerance) on each independent variable. Referring to previous studies conducted by [11],[2], the criteria for VIF values that meet the requirements of no multicollinearity are below 10. While the TOL value, the condition of no multicollinearity is when the TOL value for each variable is above 0,1. From the analysis conducted with SPSS 25, the results of the VIF value for each independent variable are below 10, and the TOL value for each independent variable is above 0.1 so it is assumed that there is no multicollinearity. The details of VIF and TOL values for each variable are as attached in the following table.

Table 4.2 TOL and VIF Value

Dependent Variable : Social Media Usage	Independent Variables	TOL	VIF
	Compatibility	0.478	2.090
	Cost Effectiveness	0.453	2.209
	Trust	0.744	1.342
	Interactivity	0.455	2.196

4.5 Multiple Linear Regression

Table 4.3 Multiple Linear Regression

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	24.779	4.294		5.770	0.000
	Compatibility	1.021	0.416	0.275	2.453	0.016
	Cost Effectiveness	0.183	0.400	0.053	0.457	0.648
	Trust	0.140	0.194	0.065	0.723	0.471
	Interactivity	1.208	0.383	0.362	3.152	0.002

a. Dependent Variable: Social Media Usage

From the analysis conducted with SPSS 25, the multiple linear regression equation is as follows:

$$Y = 24.779 + 1.021 X_1 + 0.183 X_2 + 0.140 X_3 + 1.208 X_4$$

All regression coefficient from the analysis is positive. This implies that there is a positive effect of all the factors on social media usage by SMEs. An increase in the value of compatibility, cost effectiveness, trust and interactivity will also increase social media usage by SMEs.

4.6 Hypotheses Test

The hypotheses test on this study will be conducted by observing the T value and the significance level of each variables. Ghozali [6] p.98 stated that t test is used to test the hypothesis partially in order to show the effect of each independent variable individually on the dependent variable. The T table for this study with df : 95 ($n-k-1=95$) and significance level 0.05 is 1.985

H1. Compatibility positively and significantly influences social media usage

From the analysis conducted, it is known that the T value of compatibility is 2.453 or > 1.985 and significance level is 0.016 or < 0.05 . These results indicate that H1 was supported. This result is consistent with research [9] which stated that there is a significant relation between compatibility and social media usage by SMEs. The significance of the effect of compatibility on the use of social media is probably caused by suitability of the existing IT infrastructures that have been used by SMEs. This result implicates that in order to adopt social media in their business process SMEs don't need to make big change on their infrastructure. This might be also related with the fact that social media is so easy to access, only by having cellular phone with certain operating system, SMEs are already capable to use social media for their business.

H2. Cost effectiveness positively significantly influences social media usage

From the results of the analysis, it is known that the T value of cost effectiveness is 0.456 or < 1.985 and significance level is 0.648 or > 0.05 . These results indicate that H3 was not supported. This result is consistent with the result of research conducted by [11] which concluded that cost effectiveness has no significant effect on the use of social media. This is likely due to lack of financial resources from SMEs so that the use of social media is considered to require high operational costs.

H3. Trust on social media positively and significantly influences social media usage

From the analysis conducted, it is known that the T value of trust is 0.723 or < 1.985 and the significance level is 0.471 or > 0.05 . The result indicates that H3 was not supported. This result is consistent with research conducted by [1] which concluded that the trust factor did not significantly influence the use of Facebook on SMEs in Malaysia. The insignificant influence of trust on the use of social media is likely to be caused by several things. Among them is the absence of security guarantees from transactions made through social media. In addition, social media allows two-way communication so that customers can give bad comments that will affect the image of SMEs.

H4. Social media interactivity positively and significantly influences social media usage

From the analysis conducted, the T value for social media interactivity is 3.152 or > 1.985 and significance level is 0.002 or < 0.05 . The results indicate that H4 was supported. This result is consistent with research [11], which concluded that interactivity has a significant effect on the use of social media. Another study by [13] also found there is a positive influence from

interactivity toward social media usage by SMEs in Indonesia. This result indicates that SMEs are concerned about the interactive features of social media that can be used for their business. Social media provides features that are quite complete for promotion, customer relations, as well as marketing and customer research. Text, photos and videos are some of the features that can be used for promotion, advertising and branding through social media. In term of customer relations, most social media provides a chat message feature as well as a comment column so that SMEs can communicate with their customers responsively.

5 CONCLUSIONS AND LIMITATIONS

Findings of the study suggested that compatibility and interactivity significantly related to social media usage among SMEs in Jakarta, Jawa Barat and Banten. These results imply that SMEs are concerned with social media capability to suit their existing technology and their business process. It can be concluded that in order to use social media a company or individual does not need equipment with very high specifications. In addition, social media applications can now be integrated with various other applications such as online selling sites and personal websites. In the context of interactivity, features such as photos, videos and direct messages considered as some important features for SMEs in order to run their business. These interactive features are very helpful for SMEs for promotion, customer relations, as well as marketing and customer research.

There are several limitations in this study. The first limitation is samples selection. The sample only covered SMEs in Jakarta, Jawa Barat and Banten. Future research should include respondents from wider area in Indonesia to enhance the findings. Apart from the sample aspect, another limitation in this study is that social media under study is a social media application in general, not focused on the use of one particular social media. In the future, research can be done by focusing on certain social media platforms. Another limitation is that this study only focuses on SMEs that are currently using social media. In the future, it will certainly be interesting if the research also analyzes SMEs that do not use social media and what problems are preventing them from adopting the use of social media.

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AUTHORS PROFILE



Muhammad Ardiansyah received a Bachelor Degree in Informatics Engineering from Gunadarma University, Depok in 2015. Currently continuing his master degree in Gunadarma University at Department of Information System Management focusing on Business System Information.



Dr. Peni Sawitri is a lecturer at the Faculty of Economic, Departement of Management Gunadarma, University, Depok.