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The perception on technology acceptance to the behaviors on the use of social media for marketing and its implications on the turnover of creative industry MSMEs in villages

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Abstract. MSMEs require an effective and efficient marketing medium to expand their market shares. Thus, the role of social media for marketing is greatly important. The purpose of this study is to examine the technological acceptance factors to the behaviors on the use of social media for marketing and its implication on the turnover of creative industry SMSEs. This research employs the Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB). The research population consists of creative industry MSMEs in Banyuasin Regency, based on the convenience sampling method. There are 78 respondents of business actors in Banyuasin Regency. The data are collected through questionnaires and then analyzed using the Structural Equation Modeling (SEM) operated with Lisrel Program. The research results show that: The indirect influence of variable Perceived Usefulness (X1) on Intention to Continue Usage of Social Media Marketing (Y1) and MSMEs' turnover (Y2) is equal to 0.05. The indirect influence of variable Perceived Enjoyment (X2) on Intention to Continue Usage of Social Media Marketing (Y1) and its implication on MSMEs' turnover (Y2) is equal to 0.08. The indirect influence magnitude of variable Intellectual Capital (X3) on Intention to Continue Usage of Social Media Marketing (Y1) and its implication on MSMEs' turnover (Y2) is equal to 0.11. The indirect influence magnitude of variable Risk or Perceived Costs (X4) on Intention to Continue Usage of Social Media Marketing (Y1) and MSMEs' turnover (Y2) is equal to 0.11.

1. Introduction

Social media for marketing is one most important computer-based digital marketing channel which possibly creates and exchanges ideas, information, and images related to the company products or services. According to Nielsen, the internet users continuously spend more time with social media sites than the others. The marketing networks through Social media include Facebook, Twitter, LinkedIn, instagram. Whatsapp, and Google+. Based on the survey results of WeAreSocial.net and

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Hootsuite, Instagram is considered as the social media platform ranked the seventh largest number of users in the world. Instagram is a social network not only for sharing photos but also widely used to market various business products. In January 2018, the total number of Instagram users has reached 800 million people [1].

The WhatsApp services show a significant growth by collecting 1.5 billion users per month, known as Monthly Active Users (MAU). That number increased by 14 percent when compared to the WhatsApp MAU in last July, 2017 with 1.3 billion MAU. The active users per day or known as Daily Active Users (DAU) are in approximately one billion DAU [2]. Meanwhile, the data from Telegram Blog (https://telegram.org/blog) in 2016, Telegram claimed to have more than 100,000,000 monthly active users and at least 350,000 new daily users throughout the world. The more the users from one application or platform, the more the market potentials will be. Of course, this may also widely influence the use of social media by the business actors, including MSMEs.

Social media have the potentials to help MSME actors in marketing their products. [3] and [4] have found that the digital marketing strategies may have an influence up to 78% on MSMEs competitiveness in marketing their products. [5] have successfully identified the business value on the use of social media for MSMEs, such as the established sustainable marketing channels, the increasing short-term revenue and long-term sales, the decreasing advertising cost by up to 70%, the reduced overall marketing costs, established competitive advantages, the facilitated promotion across the social media platforms, the increasing brand and product popularity, the acknowledged organizations or companies to the society.

In other words, it can be said that the social media for marketing not only help market the products and services, reduce the promotion cost, complete the brands, and conduct mutual communication with the customers and suppliers but also has the role to help identify the customers, share information to know the objects that the customers like, the presence of the customers based on location and interaction pattern, company reputation regarding to the customers' opinions and the established inter-customer groups.

The closely related model to the information technology acceptance is Technology Acceptance Model hereinafter called TAM developed by [6]. The other researchers using this model include [7]–[13]. TAM was previously developed by [14] based TRA developed by [15]. In his theory, Davis explains that there are two important antecedents to explain the behavioral intensity using technology, namely the perceived usefulness and the perceived ease of use. Theory of Planned Behavior (TPB) is a theory explaining that the intention predictors behave within three important antecedents: attitude, subjective norm, and behavioral control (risk perception) [16]. Ajzen argues that the behavior with high involvement results in antecedents of risk perception or behavioral control.

The purpose of this research is to figure out the factors influencing the behaviors on the use of social media for marketing and its implication on the turnover of the creative industry MSMEs in villages by applying by implementing the application of Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB). This research extends the one conducted with the subject of creative industry MSMEs in villages of Banyuasin Regency. Banyuasin is one of the regencies in South Sumatera Province directly adjacent to Palembang. Thus, Banyuasin may be said as the supporting area of South Sumatera Provincial capital. The development of Palembang may at least either directly or indirectly influence the creative industry MSMEs.

2. Methodology

The research design is considered as a causal study. According to [17] a causal relationship is characterized with cause and effect. The type of research used is classified into a quantitative research approach presented in the form of figures or using the statistical formula to measure the variables in this research [17]. Data sources used in this study are in the form of primary data which are in the forms of questionnaires and partly conducted with direct interviews.

The population in this study is the creative industry MSME actors existing in the villages of Banyuasin District III, Banyuasin District. Based on the convenience sampling technique, there are 78

respondents of Creative industry MSME actors. The data are collected by distributing questionnaires to the creative industry MSME actors. The research data are then analyzed using Structural Equation Modeling (SEM) operated through Lisrel Program. The formulated structural equation is on the following guideline:

Endogenous Variable = Exogenous Variable + Endogenous Variable + Error

One of Path Analysis objectives is to determine whether the model is fit or not. According to Hulland *et al*. in [18], several conformity indexes and their "cut-off value" are used to examine whether a model is accepted or rejected:

Table 1. Feasibility Testing Index Model (Goodness of Fit Index)

Goodness of Fit Index	Cut-of Value
χ2-Chi-square	Expected to be small
Significance Probability	≥ 0.05
RMSEA	≤ 0.08
GFI	0 – 1
AGFI	≥ 0.90
CMIN/DF	≥ 3.00
TLI	≥ 0.95
CFI	0 – 1

3. Result and Discussion

The detail of the questionnaire distribution and submission are presented in Table 4 as follows:

Table 2. The detail of the questionnaire distribution and submission

Description	Number of Questionnaires
Distributed Questionnaires	82
Submitted Questionnaires	78
Non-submitted questionnaires	3
Incomplete fulfilled questionnaires	1
Processed Questionnaires	78
Usable Response rate (129/134 x 100%)	95.12%

Based on the data presented in Table 3 the number of the processed questionnaires is 78. It means that the usable rate response rate is adequately high at 95.12%. The description of respondents in number and percentage based on sex, age, length of business, education, and business type is described in Table 5 as follows:

Table 3. The Statistical Description of Variable

Description	**Number**	**Percentage**
Sex		
Female	29	37.18
Male	49	62.82
Age		
20-21 years old	14	17.95
22-23 years old	20	25.64
24-25 years old	44	56.41
Length of Business		
2-3 years	33	42.31
> 3 years	45	57.69
Education		

Still Studying at Senior High School /Equal	23	29.49
Still Studying at the degree of D3/S1	12	15.38
Graduated from the degree of D3/S1	43	55.13
Business Type		
Craft	25	32.05
publishing and printing	11	14.10
computer services and software	10	12.82
Advertising, Video, and photography	8	10.26
Clothing / fashion	24	30.77

Based on Table 5, the sample of Respondents of the creative industry MSME actors in the villages used in this research is dominated by male with the age of between 24-25 years old, length of business by more than 3 years, the recently dominating education level of studying at the degree of D3/S1 program, and with the dominating business groups on craft.

Validity test

This test aims at examining whether or not each instrument (statement) item is actually able to reveal the measured factors. The validity value of each statement is shown from the Corrected Item-Total Correlation value of each statement. As described by [19], if the Corrected Item-Total Correlation is > 0.3, the measuring instrument or statement item is considered valid. Based on the validity testing result of the questionnaire statement items to 78 respondents by using SPSS got Corrected Item-Total Correlation of > 0,3 on all items of all variables, the data may then be further analyzed.

Test Reliability

The reliability test is conducted using Cronbach's Alpha method and measured using Cronbach's Alpha 0 to 1. The reliability of a variable construct is considered good if its Cronbach's Alpha value is > .60 [19]. Based on the reliability testing results, it is obtained that the Cronbach's Alpha value is > 0.60 that all items of all variables are considered reliable.

Confirmatory Factor Analysis (CFA)

Path Analysis

The estimated result of path analysis based on t-value is shown in the following figure.

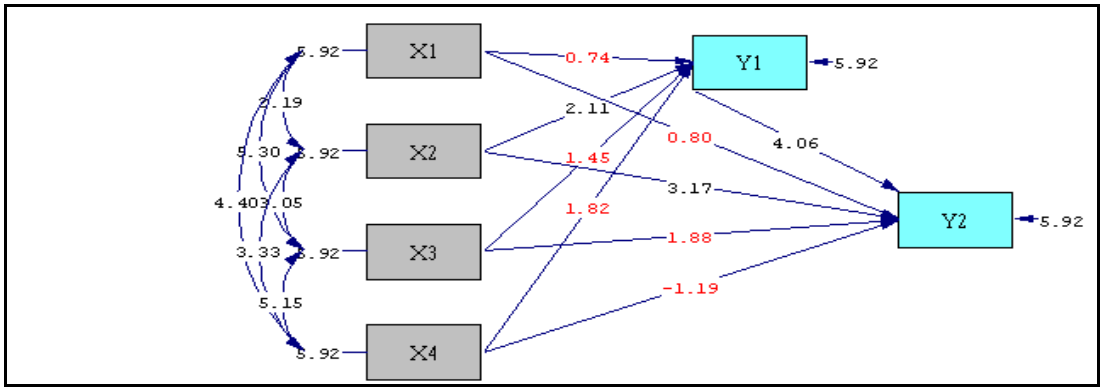

Figure 1. Path Analysis based on t-value

Based on Figure 1, it shows that the parameters available in Full Model X2 significantly influence (indicated by t-count value greater than 1.96) variable Y1, while variable X1, X3, and X4 do not significantly influence Variable Y1 at the level of 0.05 %. X2 and Y1 significantly influence Y2 at the level of 0.05%. Meanwhile, X1, X3, and X4 do not significantly influence variable Y2 at the level of 0.05%.

This path analysis is divided into two substructures. The first substructure analyzes the influence of X1, X2, X3, and X4 as the exogenous variables to Y1 as the endogenous variable. The second substructure analyzes X1, X2, X3, X4, and Y1 as the exogenous variables to Y2 as the endogenous variable. Based on the calculation result using LISREL, the path diagram may be described as follows.

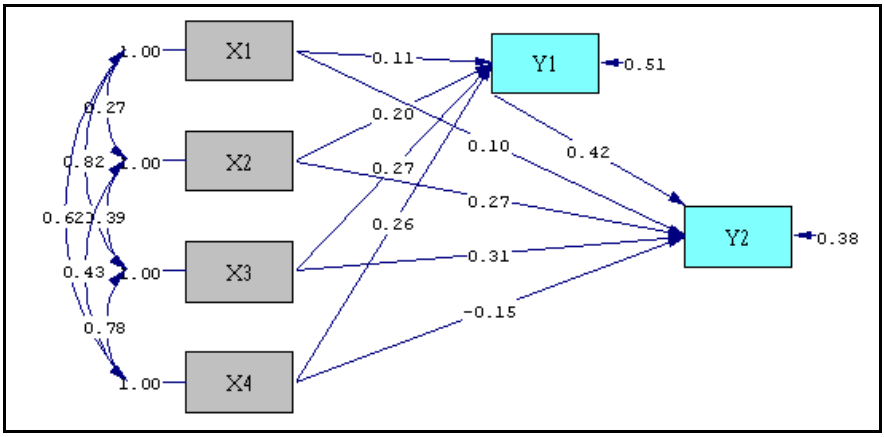

Figure 2. Path Diagram

Based on the loading standard results above, the structural equations are formulated as follows.
Sub-Structural Equation:

$$Y1 = 0.11\ X1 + 0.20X2 + 0.27X3 + 0.26X4$$

Based on the structural model above, it can be stated that the better the variables X1, X2, X3, and X4, the ICU (Y1) will continuously increase.

Structural Equation:
$Y2 = 0.42Y1 + 0.10X1 + 0.27X2 + 0.31X3 - 0.15X4$

Based on the structural model, it can be explained that the MSMEs' turnover (Y2) is directly influenced by ICU (Y1) and variable X1, X2, X3, and X4. It means that the better the ICU (Y1) and variable X1, X2, X3, X4, the ICU will continuously increase. The structural equation also shows the magnitude of the direct influence of ICU variable toward MSMEs' turnover is more dominant than the other variables. Meanwhile, variable X4 negatively influences Y2.

Direct and Indirect Influence Analysis

The direct influence analysis is intended to directly see how strong the influence of a variable on the other variables and interpretation of the results may have an important meaning to make an appropriate step to maintain and improve the MSMEs' turnover. The direct influence calculation result conducted with Lisrel is presented as follows:

Tabel 4. Direct Influence

	X1	X2	X3	X4	Y1
Y1	0.11	0.20	0.27	0.26	
Y2	0,15	0.35	0.43	-0.04	0.42

Based on the result presented in Table 4, it can be stated as follows:

a. The direct influence magnitude of PU (X1) on ICU (Y1) is equal to 0.11, variable PE (X2) on ICU (Y1) equal to 0.20, variable IC (X3) on ICU (Y1) equal to 0.27 and Variable (R/PC) (X4) on ICU (Y1) equal to 0.26.
b. The direct influence magnitude of PU (X1) on MSMEs' turnover (Y2) is equal to 0.15, variable PE (X2) on MSMEs' turnover (Y2) equal to 0.35, variable IC (X3) on SMSEs' turnover (Y2) equal to 0.43 and variable (R / PC) (X4) on MSMEs' turnover (Y2) equal to -0.04.
c. The direct influence magnitude of ICU (Y1) on SMSEs' turnover (Y2) is equal to 0.42.

The indirect influence analysis is intended to indirectly see how strong the influence of a variable on the other variables and interpretation of the results may have an important meaning to make an appropriate step to improve the MSMEs' turnover. The indirect influence calculation result conducted with Lisrel is presented as follows:

Table 5. Indirect Influence

	X1	X2	X3	X4	Y1
Y1					
Y2	0.05	0.08	0.11	0.11	

Based on the results presented in Table 5, it can be stated that:
a. The indirect influence of variable PU (X1) on ICU (Y1) and MSMEs' turnover (Y2) is equal to 0.05.
b. The indirect influence of variable PE (X2) on ICU (Y1) and its implication on MSMEs' turnover (Y2) is equal to 0.08.
c. The indirect influence magnitude of variable IC (X3) on ICU (Y1) and its implication on MSMEs' turnover (Y2) is equal to 0.11.
d. The indirect influence magnitude of variable (R / PC) (X4) on ICU (Y1) and MSMEs' turnover (Y2) is equal to 0.11.

4. Conclusion

The results showed that directly Perceived Usefulness (PU) had a positive effect on Intention to Continue Usage of Social Media Marketing. Perceived Enjoyment (PE) has a positive effect on Intention to Continue Usage of Social Media Marketing. Intellectual Capital (IC) has an influence on the intention to continue usage of social media marketing. Risk or Perceived Costs (R / PC) have a negative influence on the intention to continue usage of social media marketing. Intention to Continue Usage of Social Media Marketing (ICU) has a positive effect on MSME turnover. Risk or Perceived Costs (R / PC) have a negative influence on the intention to continue usage of social media marketing. Intention to Continue Usage of Social Media Marketing (ICU) has a positive effect on MSME turnover. While indirectly all research variables through Intention to Continue Usage of Social Media Marketing affect the turnover of MSMEs in rural areas in the Banyuasin Regency.

References

[1] 2018, Berapa Pengguna Instagram dari Indonesia?, *Kata Data*. .
[2] Bohang F K, 2018, Pengguna aktif bulanan whatsapp tembus 15 miliar. .
[3] Stelzner M A, 2012, Social Media Marketing Industry Report. How Marketers Are Using Social Media to Grow Their Business.
[4] Wardhana A, 2015, Strategi Digital Marketing dan Implikasinya pada Keunggulan Bersaing UKM di Indonesia. .
[5] Stockdale R Ahmed A and Scheepers H, 2012 Identifying Business Value From The Use Of Social Media: An Sme Perspective in *Pacific Asia Conference on Information Systems*

(PACIS).
[6] Davis F D, 1989 Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology *MIS Q.* **13**, 5 p. 319–339.
[7] Adam D A Nelson R R and Todd P A, 1992 "Perceived Usefulness, Ease of Use and Usage of Information Technology: A Replication" *MIS Q.* **16**, 2 p. 227–250.
[8] Szajna B, 1994 "Software evaluation and Choice: Predictive Validation of the Technology Acceptance Instrument" *MIS Q.* **18** p. 319–324.
[9] Chin W W and Todd P A, 1995 "On the Use, Usefulness, and Ease of Use of Structural Equation Modeling in MIS Research: A Note of Caution" *MIS Q.* **19** p. 237–246.
[10] Igbaria M N. Zinatelli P C and Cavaye A L M, 1997 "Personal Computing Acceptance Factors in Small Firms: A Structural Equation Model" *MIS Q.* **21**, 3 p. 279–305.
[11] Venkatesh V and Moris M G, 2000 "Why Don't Men Ever Stop to Ask for Directions? Gender, Social Influence, and Their Role in Technology Acceptance and Usage Behavior" *MIS Q.* **24**, 1.
[12] Tjahjono H K and Wulandari Y, 2008 Implementasi Model Penerimaan Teknologi pada Organisasi: Kajian Intensi Dosen Menggunakan Teknologi ELearning *J. Ekon. dan Bisnis* **20**, 1 p. 42–51.
[13] Palupi M and Tjahjono. H, 2008 Aplikasi Technology Acceptance Model dengan Mempertimbangkan Gender Pada Perilaku Penggunaan Internet *J. Ekon. dan Bisnis* **19**, 2 p. 147–166.
[14] Davis F D and Quarterly M, 1989 Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology *MIS Q.* **13**, 3 p. 319–340.
[15] Fishbein M and Ajzen C, 1975 *Belief, attitude, intention and behaviour: An introduction to theory and research* Reading, MA: Addison-Wesley.
[16] Ajzen I, 1985 From intentions to actions: a theory of planned behavior dalam J Kuhl & J. Beckmann (Eds.). ActionControl: From Cognition to Behavior. *Springer, Heidelb*. p. 11–39.
[17] sugiyono, 2016 *Metodologi penelitian kuantitatif, kualitatif, dan R&D* Bandung: Alfabeta.
[18] Ferdinand A, 2006 *Metode Penelitian Manajemen* Semarang: Universitas Diponegoro.
[19] Sekaran U, 2006 *Metodologi Penelitian untuk Bisnis* 4th ed. Jakarta: Salemba Empat.