

THE ROLE OF THE USE OF SOCIAL MEDIA IN ANALYZING THE IMPACT OF ORGANIZATIONS USING THE TOE FRAMEWORK ON MSMEs IN INDONESIA

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ABSTRACT

This study investigates the factors influencing social media usage towards micro and small enterprise using the TOE Framework. The TOE Framework respectfully stands for technological context, organizational context, and environmental context. The samples used in this study includes micro and small enterprise owners in Indonesia that actively uses social media for their business marketing purposes. This study uses Partial-Least-Squares-Structural-Equation-Modeling (PLS-SEM) for the path analysis of 310 responses from SME's owners, executives, and managers using purposive sampling method. The technological context is represented by relative advantage, compatibility, cost-effectiveness, structural assurance, and interactivity. The organizational context is represented by top management's support and entrepreneurial orientation. The environmental context is represented by institutional pressure. This study hopes to help organizations understand the benefits of social media usage and provides a justification for investments in social media by organizations.

Keywords: Social Media Marketing, Digital Marketing, Social Media Impact, Technology Impact, Micro, Small and Medium Enterprises.

INTRODUCTION

The MSME sector is a sector that is growing rapidly in Indonesia. According to the Central Statistics Agency (BPS), the number of MSMEs reached 64 million out of a total population of 225 million. The Ministry of Cooperatives and SMEs stated that if entrepreneurship is strong, it will create fair economic growth, and reduce economic inequality that continues to be eroded. At the same time, he points out the factors that hinder people from starting and developing businesses.

Micro, Small and Medium Enterprises or often abbreviated as MSMEs have a close relationship with entrepreneurship (Hutahayan, 2019). Entrepreneurship is one of the supporters of the economy (Syed et al., 2019). There is a lack of literature on the motivation of entrepreneurs to engage in entrepreneurial activities (Milanesi, 2018; Nowiński & Haddoud, 2019). The challenge for these business actors is the massive digital economy that is increasing rapidly which requires business actors to be information technology literate. Most research on

the benefits associated with the use of social media information technology is measured by the frequency and duration of use. The gap that occurs here is the lack of information regarding the use of digital marketing platforms for business actors (Henry et al., 2016). Studies on marketing activities carried out by MSMEs to improve small business performance are still relatively few discussed in the marketing literature (Henry et al., 2016).

The unfortunate thing is that there are few studies that focus on the impact of social media and small business performance in developing countries such as Indonesia (Ahmad et al., 2018). Previous research has focused on the impact of social media on consumer purchase decisions (Pookulangara & Koesler, 2011), the use of social media to increase brand recognition or get feedback from consumers (Siamagka et al., 2015), and how social media is beneficial for market research data (Rapp et al., 2013), as well as recommendations for generating WOM (Chang et al., 2016). Ainin et al. (2015) have also investigated the level of use, barriers, and metrics for social media in the context of MSMEs but there is still little elaboration on how social media used by MSMEs affects performance in developing countries such as Indonesia (Ahmad et al., 2018). Although there are many studies related to entrepreneurship and digital marketing skills in SMEs, relatively little is known about its relationship with the TOE Framework which consists of the technological context, organizational context, and environmental context. The TOE Framework is identified by three groups, namely technological context, organizational context, and environmental context. This TOE framework describes innovation adoption which provides a useful analytical framework that can be used to study the blending of different types of IT innovation (Tajudeen et al., 2017).

Overall, this is a gap in research that deserves further study to make a valuable contribution to the theory and practice of SME development (Ng et al., 2020). The TOE framework is considered as a framework that can understand the adoption of information technology innovation (Oliveira & Martins, 2010). Previous studies have widely used the TOE Framework to investigate various antecedents regarding the use of information systems (Low, Chen, and Wu, 2011). However, unlike other technological innovations, social media is a more public thing so it has both advantages and disadvantages to its use. Thus, there can be other technological, organizational, and environmental factors that more specifically affect social media and its use in an organization (Tajudeen et al., 2017).

To fill the research gap in the world of literature and develop a framework that describes the antecedents and benefits of using social media in organizations, the research of Tajudeen et al. (2017) rely on the TOE framework. This study aims to understand the factors associated with technology, organization, and the environment related to the use of social media in organizations because the explanation of the benefits of social media to organizations is not clear (Tajudeen et al., 2017; Tehseen et al., 2019; Trainor et al., 2014).

In conclusion, there are three literature gaps that want to be discussed in this study, namely the lack of information regarding entrepreneurial orientation which will be discussed in the TOE Framework, inconsistencies regarding the impact of the use of digital marketing on micro and small enterprises that have gone digital, and the relationship between the TOE Framework. which can explain the performance of micro and small enterprises. The researcher hopes to fill the gaps in the previous literature and contribute to further research on the topic of the TOE Framework which includes the technological context, organizational context, and environmental context that affect the performance of micro and small enterprises.

LITERATURE REVIEW

Technological Construct

The increasing digitization, globalization, and use of the internet have shortened the product-life-cycle and the technology is constantly improving and often makes organizations use them both in large or small reach, as well as any type and sector (Qalati et al., 2020; Sulistyono & Siyamtinah, 2016). Technology has sufficient significance for economic progress and provides economic benefits for companies (Bolatan et al., 2016). Previous studies have discussed technological factors that affect the use of social media such as relative advantage (Zamberi et al., 2019), complexity (Tajudeen et al., 2018), perceived usefulness (Abed, 2020), and interconnectivity (Pateli et al., 2020). In relation to the context of technological constructs, previous studies based on the theory of Diffusion of Innovation (DOI) usually focused on relative advantage and cost effectiveness as supporting variables that have been consistently applied since the beginning of technology adoption (Olanrewaju et al., 2020). In this study, five characteristics of technology will be used, namely relative advantage, cost effectiveness, compatibility, interactivity, and structural assurance:

Relative Advantage: According to Wang et al. (2010), relative advantage is the extent to which innovation is considered to provide greater organizational benefits than the original idea or status quo. Followed by the statement that companies that get or feel a higher relative advantage in adopting an innovation will be more likely to use the innovation.

Compatibility: Compatibility refers to the extent to which an innovation is compatible with the technological infrastructure, values, work practices, and culture that are embedded in the organization (Chatterjee & Kar, 2020; Davcik et al., 2021). Previous research has stated that new, more compatible technologies are more likely to be used or adopted by existing companies (Sulaiman et al., 2015; Zamberi et al., 2019). This compatibility is essential in adopting innovative technologies such as the use of social media. If the MSME feels that adopting technology is compatible and in accordance with the system it employs, then the MSME will tend to adopt the technology (Brown and Russel, 2007; Hsu et al., 2007).

Cost effectiveness: Cost effectiveness is the extent to which a new technology is more productive and useful than the costs involved (Qalati et al., 2020). This feature of technology adoption is considered to be one of the most important and widely used in the previous literature (Olanrewaju et al., 2020).

Interactivity: Interactivity refers to the extent to which companies or individuals can interact using social media platforms such as Facebook, Instagram, Tiktok (Qalati et al., 2020). There have been previous researchers who have proven the positive effect of interconnectivity on the use of social media which is stated to facilitate and enhance existing associations and enable companies to develop new connections to their customers and provide access and relevant information (Trem and Leonardi, 2013). Thus, it can be concluded that social media is a new technology for MSME business actors and offers a way to increase interaction between companies and their customers (Qalati et al., 2020).

Structural Assurance: Structural assurance refers to the belief that a favorable outcome is most likely due to contextual structures such as contracts, regulations, and guarantees. In the context of social media, organizations post a lot of information about the organization, its products, services, and other promotional activities (Tajudeen et al., 2017). Therefore, structural assurance in the organization is more needed.

Organizational Construct

In the previous literature, organizational construct relates to the company's internal attributes such as type, size, number of employees, and managerial problems (Tornatzky et al., 1990). According to Pateli et al., (2020), managerial support and entrepreneurial orientation involve approval from the owner or manager to implement projects, policies, and changes in all company activities.

Top management support: Ahani et al., (2017) argue that information-based technology in the context of MSMEs is mainly influenced by top management who makes most of the decisions of daily efforts to choose the options for activities carried out. In addition, top management has an impact on coordination and availability of resources by supporting sufficient talent, time, and finance to use social media (Kim et al., 2017).

Entrepreneurial orientation: From the point of view of various experts, entrepreneurship is the ability for an entrepreneur to think creatively, act innovatively as it becomes the foundation, resource, driver, and process for facing lifestyle challenges. Entrepreneurship is related to the concept of innovation (Schumpeter, 1934).

Institutional pressure: Institutional pressure is defined as the level of pressure from competitors in the industry or market perceived by the organization. In the context of MSMEs, the greater the number of competing organizations, the greater the amount of technology that is expected to be utilized (Maroufkhani et al., 2020). In addition, competition can also be caused by technological developments, globalization, and the rapid spread of innovative technologies (Qalati et al., 2020).

Social Media Adoption

This role of social media is changing marketing management by providing the ability to advertise products through social media platforms (Cant, 2016) at a cost advantage that exceeds traditional advertising (Brink, 2017; Michaelidou et al., 2011).

METHODOLOGY

Data

This study uses a conclusive research design to measure the phenomenon and test the proposed hypothesis and see the relationship between variables. Then, this study uses a descriptive research methodology with a specific type of cross-sectional field study that takes different samples and the sample can only participate in this study in one time period (Malhotra, 2010). This descriptive study was conducted to examine the effect of the TOE Framework which includes technological constructs, organizational constructs, and environmental constructs on the use of social media on micro and small enterprises. This study uses primary primary quantitative survey data that the respondents filled out and collected online. The primary data collection method in this study was a self-administered survey. Questionnaires will be distributed through social media and respondents will be directed to a google form to be filled in by each respondent independently. Researchers used a 6-score Likert scale, where a scale of 1 (one) is strongly disagree, and a scale of 6 (seven) is strongly agree. Respondents taken for this study used non-probability and purposive sampling methods, namely by setting specific criteria as respondents' sampling parameters.

Hipotesis Penelitian

Relative advantage on the use of social media: The use of social media is expected to provide various benefits for companies, including information benefits such as the ease of getting data input from media users such as customers and competitors (Tajudeen et al., 2017). It helps in forming new businesses, improving existing businesses, increasing sales of goods, increasing the number of connections, and improving customer relationships (Kensel and Deis, 2010). Tajudeen et al. (2018) prove that relative advantage is an important element of social media use and is positively related. Therefore, the researcher proposes the following hypothesis:

H₁: Relative Advantage positively affects Social Media Usage

Compatibility on the use of social media: When a technology is consistent with existing technology, infrastructure, culture, values, and work practices that match the company, then the technology is more likely to be used. Using social media in MSMEs is considered the right concept because it will be able to reach their potential appropriately and help improve their business welfare (Derham et al., 2010). There are several previous studies that have found that more compatible technologies are more likely to be adopted (El Ghazary, 2012; Hong & Zhu, 2010; Wang et al., 2010; Zamberi et al., 2019). Therefore, the researcher proposes the following hypothesis:

H₂: Compatibility positively affects Social Media Usage

Cost-Effectiveness on the Use of Social Media: There are previous studies that have found cost-effectiveness to be an important variable in the application of new technologies (Chong and Chan, 2012; Premkumar and Roberts, 1999). In the case of social media, companies can engage in direct and timely contact with end consumers at relatively low costs and have higher levels of efficiency. This can be achieved when compared to traditional communication tools (Tajudeen et al., 2018). Therefore, the researcher proposes the following hypothesis:

H₃: Cost-Effectiveness positively affects Social Media Usage

Structural assurance on the use of social media: In the previous literature, there have been many studies that the greater the trust in a technology, the more likely it is to be adopted in an organization (Chong & Ooi, 2008; Choudhury & Karahanna, 2008). In the context of social media, organizations post a lot of information about the organization, its products, services, and other promotional activities. Therefore, structural assurance in the organization is more needed. Therefore, the impact of structural assurance on the use of social media is examined in this study with the following hypothesis:

H₄: Structural Assurance positively affects Social Media Usage

Interactivity on the use of social media: Social media allows two-way communication rather than one-way transmission or distribution of information to an audience (Mayfield, 2011). Social-networking platforms such as Facebook, Youtube, and Twitter, have become e-business sites that integrate social networking features on their sites. This allows interactive interaction and communication between customers and companies (Lee and Kozar, 2009). The interactivity factor has not been widely studied in the previous literature under the technology context in the TOE framework. However, according to Tajudeen et al. (2017) further study needs to be done

because it considers the interactive environment in social media. The research of Tajudeen et al. (2017) looks at the interactivity factor and investigates its impact on social media use. Therefore, the researchers put forward the following hypothesis:

H₅: Interactivity positively affects Social Media Usage

Top Management's support on the use of social media: Social media also has an important managerial reputation when using social media, dissatisfied customers may post negative information about their organization that can affect the company's reputation (Shirky, 2008; Zyl, 2009). Looking at some recent issues, top management support can be an important factor in using social media. Therefore, Tajudeen et al. (2017) include top management support in the TOE framework in studying the use of social media. Therefore, the researcher proposes the following hypothesis:

H₆: Top Management's Support positively affects Social Media Usage

Entrepreneurial orientation on the use of social media: Social media is a digital marketing technology that has developed rapidly in previous years and is treated as an interactive technology resource (Martinez-Nunez & Perez-Aguiar, 2014). Tajudeen et al. (2017) using the TOE Framework have studied the impact of entrepreneurial orientation under the organizational context. Thus, the researcher proposes a hypothesis that includes an entrepreneurial orientation in learning about the use of social media with the following hypothesis:

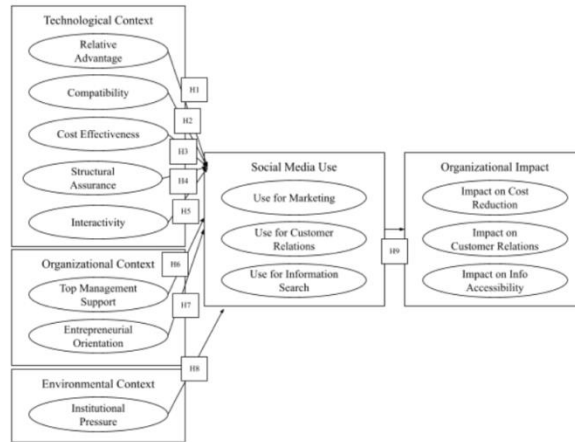
H₇: Entrepreneurial Orientation positively affects Social Media Usage

Institutional pressures on the use of social media: Institutional pressure refers to the pressure that comes from the institutional environment that causes companies to adopt various norms and routines (DiMaggio and Powell, 1983). With regard to the use of social media, it can be said that companies tend to encourage the use of social media due to external pressures (Tajudeen et al., 2017). Therefore, institutional pressure that is included in the environmental context in the TOE Framework in the previous literature is associated with the use of social media. Therefore, the researcher proposes the following hypothesis:

H₈: Institutional Pressures positively affect Social Media Usage

Social media usage on the use of social media: Both research from Bougrain and Haudeville (2002); Chumaidiyah (2011) emphasize the importance of digital marketing usage in technical skills, along with marketing and R&D capabilities, to improve product development processes and competitiveness. Based on these findings, this study investigates whether innovation affects the relationship between digital marketing usage and micro and small enterprises shows in Figure 1. The hypotheses proposed in this study are:

H₉: Social Media Usage affects the impact on the company positively

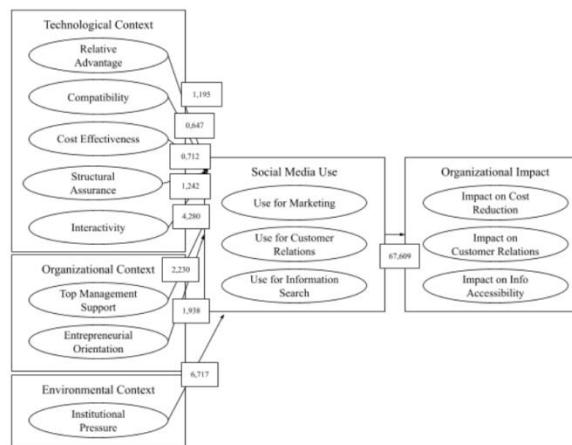


**FIGURE 1
RESEARCH MODEL**

RESULT AND DISCUSSION

Result

Based on the analysis of the processed data in the table above, it can be seen that the largest path coefficient value is found in the relationship between Social Media Usage and Organizational Impact, which is 0.902. Then the second highest position is the relationship between Institutional Pressure to Social Media Usage of 0.403, and Interactivity to Social Media Usage of 0.246. Regarding significance, there are 3 variables that do not meet the significant criteria, namely Cost-Effectiveness, Relative Advantage, and Structural Assurance. In addition, the variables found to be significant are Compatibility, Entrepreneurial Orientation, Interactivity, Top Management's Support, and Social Media Usage. The results of this research test can be seen in the following Figure 2.



**FIGURE 2
RESEARCH RESULT MODEL WITH T-VALUE**

In this section, after conducting direct path coefficient analysis, this research hypothesis can be answered and analyzed using the data listed. The following is a summary of the results of hypothesis testing based on the direct path coefficient value with the T-Value value of each correlation relationship in this study. The researcher also compares the results of the hypotheses from reference journals as a comparison of research shows in Table 1.

Hip	Hypothesis	Result	References
H ₁	Relative Advantage positively affects Social Media Usage	The data do not support the hypothesis	The data support the hypothesis
H ₂	Cost-Effectiveness positively affects Social Media Usage	The data do not support the hypothesis	The data do not support the hypothesis
H ₃	Compatibility positively affects Social Media Usage	The data support the hypothesis	The data support the hypothesis
H ₄	Structural Assurance positively affects Social Media Usage	The data do not support the Hypothesis	The data do not support the hypothesis
H ₅	Interactivity positively affects Social Media Usage s	The data support the hypothesis	The data support the hypothesis
H ₆	Top Management's Support positively affects Social Media Usage	The data support the hypothesis	The data do not support the Hypothesis
H ₇	Entrepreneurial Orientation positively affects Social Media Usage	The data support the hypothesis	The data do not support the Hypothesis
H ₈	Institutional Pressures positively affects Social Media Usage	The data support the hypothesis	The data support the hypothesis
H ₉	Social Media Usage positive impact on the company	The data support the hypothesis	The data support the hypothesis

(Source: Research Results)

Path Coefficients		Sample Mean	Standard Deviation	T-Value	P-Value	Kesimpulan
COMP → SMU	0.103	0.099	0.048	2.123	0.017	Significant
CE → SMU	0.030	0.032	0.043	0.705	0.240	Not significant
EO → SMU	0.088	0.089	0.045	1.964	0.025	Significant

IP → SMU	0.403	0.402	0.061	6.608	0.000	Significant
INT → SMU	0.246	0.238	0.058	4.274	0.000	Significant
RA → SMU	0.086	0.091	0.073	1.178	0.119	Not significant
SMU → OI	0.902	0.903	0.014	65.8133	0.000	Not significant
SA → SMU	-0.043	-0.039	0.034	1.252	0.105	Not significant
TMS → SMU	0.096	0.097	0.044	2.173	0.015	significant

(Source: Research Results)

Overall, the results of this study show that there are six accepted hypotheses and three rejected hypotheses. Through this study, it can be concluded that the use of social media can be influenced by compatibility, interactivity, top management's support, entrepreneurial orientation and institutional pressure which have an influence on the use of social media on organizational impact. Meanwhile, relative advantage, cost-effectiveness, and structural assurance have no effect on the use of social media on organizational impact shows in Table 2.

The interactivity variable seems to have the greatest impact on the use of social media, followed by compatibility. This finding is in line with previous findings which say that interactive and compatible innovations can accelerate the process of technology adoption because they can attract the attention of users quickly. With an interactive environment on social media as the adopted technology, two-way communication between the public and the company takes place well. Features that can be used to be interactive on social media include comment sections, direct messages, and stories that use interactive features such as questions and answers column, polls, and reaction stickers. Social media is also considered as a tool that is compatible with infrastructure and technology that is easily adopted by any organization. Tajudeen et al. (2017) say that anyone with an internet network can use social media such as Facebook and Instagram. This encourages the statement that social media is a compatible tool with infrastructure and technology that is easily adopted by any organization.

On the other hand, the relative advantage, cost-effectiveness, and structural assurance variables are part of the technological context which has no effect on the use of social media. This can be caused because the relative advantage, expected benefit or benefits expected from the use of social media do not reflect the effect. In addition to the use of social media, there are other costs that require dedication from employees to continuously monitor, update, and respond to customers through their social media. Thus, the cost-effectiveness of adopting social media technology does not influence why companies use social media. Tajudeen et al. (2017) say that the use of social media costs money so that the use of social media cannot be said to be cost-effective or save marketing costs. In general, social media is used to interact and advertise the products and services it offers, so that companies will share the information needed to attract the attention of their audience. So, structural assurance does not determine the company's use of

social media because it has become a responsibility and its own consequences. This structural assurance will be an important factor if the technology adopted is related to the transaction.

Then in the organizational context, there are top management's support and entrepreneurial orientation that affect the use of social media and its impact on the organization. Both of these findings are different from the previous invention. This can be because the top level management has responsibility for the company's reputation. This use of social media must be monitored by competent staff and requires resources for successful use of social media such as social media specialists, designers, and campaign managers. In the context of a company, decision making is very likely to be found in top management so that its support is important in adopting technological innovations, in this case the use of social media (Ramdani et al., 2009). Then the entrepreneurial orientation becomes a factor that affects the use of social media because with social media, business actors can sell products and advertise their products so that organizations must be innovative and creative in using social media (Tajudeen et al., 2017). Technology such as social media requires managers to act entrepreneurially and companies must be prepared to face both positive and negative consequences from their audience.

Then the last variable, namely institutional pressure, has an influence on the use of social media because pressure from external parties such as competitors and customers has an influence on their decisions to use social media. The pressure that comes from this environment can encourage organizations to adopt norms and routines that are also carried out around them (Ke et al., 2009). These variables are the reasons why the use of social media affects organizational impact. Companies can understand customer preferences, needs, demands and other things through social media. In addition, companies can also obtain information about competitors that can help improve the products and services offered (Parveen et al., 2015). This research provides effective input in order to increase growth and increase competition between other companies by improving managerial mechanisms in adopting social media.

CONCLUSION

This study aims to understand the factors associated with technology, organization, and environment related to the use of social media in organizations because of the explanation of the benefits of social media to organizations. In this study using the TOE Framework which consists of technological context, organizational context, and environmental context. Based on the results of data processing and analysis of research conducted, several differences in results with previous reference studies can be found, such as the effect of relative advantage, top management's support, and entrepreneurial orientation variables. According to the researcher, this can happen because there are several differences in the research context such as the object of research. The difference in the object of research in this case can be MSMEs which tend to be specialized in hobby-based businesses. But more than that, there are still some influence variables that have similarities with the reference research such as compatibility, cost-effectiveness, structural assurance, interactivity, and institutional pressure. This can happen because of the similarity in the context of the research location which includes countries that have similarities, namely Malaysia and Indonesia. The two countries share similar cultural and social circumstances for the ongoing research.

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