573

Int. J Sup. Chain. Mgt   Vol. 9, No. 5, October 2020

Evaluation of Social Media in Digital Supply Chain Management

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Abstract- **In the past few years, many economies implement a social media-based digital supply chain management application for improving performance. However, there is problem regrading e-participation because of low level of participation by the public. The solution for improving public e-participation is by make a media for public do the e-participation, the media is social media-based digital supply chain management application. In fact, when a economy already implement the application, the participation is low. The purpose of this research is to identify factors that affecting behavior intention of public for do the e-participation using social media-based digital supply chain management application. In this research there are 203 social media-based digital supply chain management application users in Special Capital Region of Jakarta (Jakarta Aman application) that becoming research subject for evaluating the application for future development or references for other economy. The methodology approach for this study is based on combining many models such as Delon and McLean's IS Success Model and TPB as the main model. Also combining external factors from existing studies that affecting attitude toward using the application. This paper can become references and contributing for making reader to understand more regrading people behavior for adopting social media-based digital supply chain management application to engage in e-participation. Social media can be an invaluable tool for supply chain professionals looking to identify new innovations, understand commodity and pricing trends, capture best practices, and collaborate with stakeholders, peers, and suppliers.**

Keywords: Social Media, Digital Supply Chain Management, Citizen

1. Introduction

Social media brings businesses closer to their customers, provides a platform for communication and building thought leadership, and when executed properly it can help drive business and provide a significant return on investment. Information & Communication Technology (ICT) already becoming very important for developing at international level. Using the combination of ICT with hardware such as mobile phone, desktop computer, laptops, table computer, radio and so on, ICT makes a change by providing the communities with new ways for generating information, making of policy and demand services [1]. So, can be said that ICT already changes the ways of people live in this world. Economy, including those that change the way they work because of ICT. ICT be said to reform the existing economy [2]. Since ICT promises efficiency, speed of information delivery, global reach and transparency. Economy can implement ICT to reform its existing economy to accelerate economy development process, becoming digital supply chain management [3]. Economy can implement ICT for solving existing problem the economy had, ICT application can be use by economy for management of intelligent transportation system, online education, health care, e-service, e-democracy, participation in public sector, and so on [4].

Social media are one of many forms of ICT that have to do with active content creation by certain individual called users. Social media can be used for acquiring knowledge, deliver services, co-create products, communication, and so on [5]. Right now, social media already a major channel for online interactive participation that used by many economy's for enhancing citizen participation in many aspects that have to do with economy [6]. Social media enable economy to communicate with citizen regrading important information, extending economy services and get feedback. For that reasons, many economy's already use social media for communicating with citizen. The examples are Boston City used social media for communicating with their citizen after Boston Bombing incident in early 2013, for reporting fire incident at Yosemite National Park and reporting floods in Colorado [7].

According to United Nation (UN) and Waseda University, there are several indicators for deciding the success of digital supply chain management implementation. One indicator that influences the success of digital supply chain management is citizen or public participation [8]. Regrading citizen or public participation, there are several issues or problem that happen right now, the problems are managing knowledge for governance and democratic processes, identifying the needs of citizen and businesses, improving delivery quality of public services and quality of democratic process & improving networking, coordination and collaboration for better economy [9].

There is a concept called e-participation that defined as participation and involvement by public or citizen in public administration and policy using ICT such as web-based or social media-based application. E-participation can become a way of communication between economy and citizen for greater good. The most important e-participation aspect is to increasing citizen or public ability for participating in governance [10]. The main problem to solve in e-participation is the participation

citizen or public in the real world, because the low level of citizen or public acceptance and engagement [11].

The solution for resolving the issue is identifying or knowing certain factor that can predict attitude and behavior intention of citizen or public as user in term of adopting or using social media-based digital supply chain management application in Indonesia. According United Nation in 2018, Indonesia has a low E-Participation Index (EPI), Indonesia is in position 92 of 193 countries [12]. In this research, there is a conceptual model of adoption of social media-based digital supply chain management application in Jakarta, Indonesia that would be developed for identifying or knowing the certain factor that related or have an impact to public or citizen response on social media-based digital supply chain management application. The conceptual model would be used for evaluating process regrading ICT adopting in economy agencies.

E-Participation is a strategic way for improving citizen or public participation in digital supply chain management initiative, also a way for promoting society that more efficient [13]. Since e-participation relies on the adoption by the targeted community, e-participation success is influence by the use behavior of the targeted community [14]. In different perspective, e-participation seen as a set formal and informal norm that decide the citizen behavior [15]. In the last decade, the studies about e-participation by citizen has been growing, there are some model used for those studies, one of it is Theory of Planned Behavior (TPB) [16]. Many literature state that TPB is one of the most useful framework regrading explaining human behavior in wide range of field studies [17]. According to TPB, individual actual behavior most powerful factor is intention to do the behavior or behavior intention. Behavior intentions itself followed by 3 factors, namely: attitude, subjective norms and perceived behavior control (PBC) [18]. Those 3 factors are originated from behavioral, normative and control beliefs, respectively [19].

In the past few years, many local economy's in Indonesia implement digital supply chain management at their area. One of the forms of digital supply chain management implementation is social media-based digital supply chain management application that use for e-services [20]. Majority of Indonesia people already use internet, around 132.7 million people. Around 65% of Indonesia people that use internet (86.3 million people) are from Java island [21]. There is around 92 million Indonesia people that use social media daily [22]. However, according the E-participation Index (EPI) that released by United Nation in 2018, Indonesia have a relatively low e-participation [12]. The implementation of social media-based digital supply chain management application is a way for economy to communicate with citizen or public, but the problem is citizen or public participation is still low. However, for implementation of social media-based digital supply chain management application need participation [23].

Although Indonesia already implemented digital supply chain management and has started a lot of research on digital supply chain management, e-participation, and so on, one of the challenges is citizen or public participation regrading digital supply chain management is still low [24]. Low participation means public that

already becoming user of digital supply chain management service still small compared to the population in the area. The solution is doing an empirical survey research to get an explanation regarding the low participation. Moreover, is internet and growing of social media will give a benefit for democratic system? How e-services designed for giving benefit for public?

Based on background problem above, the research question for this research is how the Jakarta citizen as the users of the application see the current social media-based digital supply chain management application services quality? The purpose of this research for identifying perception of Jakarta citizen as the user toward social media-based digital supply chain management application that implemented in Special Capital Region of Jakarta and finding success rate factor regrading Jakarta citizen as application user technology acceptance in using the social media-based digital supply chain management application. This study is conducted in Special Capital Region of Jakarta and involving 203 Jakarta citizens as the social media-based digital supply chain management application user. The result of this research is hoped to contribute to digital supply chain management research in Indonesia. The result and recommendation of this study are hoped to be useful and give benefit to economy as the application provider and citizen as the user of the application. By involving citizen for this research, hoped that can improve the quality of the application as digital supply chain management services.

2. The Conceptual Model for Adoption and Measurement of Acceptance of Social Media-Based Economy

Social media benefits the supply chain industry in many ways. Companies can enhance communication with customers, generate demand, reduce operating costs, mitigate risk, increase productivity, and enhance marketplace intelligence. If companies aren't participating in social media, they could be at a disadvantage because most of their customers, suppliers, and competitors are. Theory of Planned Behavior (TPB) can be said as a psychological framework model that can give an explanation and give a prediction regrading human behavior. Right now, TPB already used for many fields of studies regrading human behavior, and TPB also suggested for e-participation field of studies [25].

In fact, TPB is an extension of existing model called Theory of Reasoned Action (TRA), TPB still pay attention regrading social psychology theory or studies. TPB also can be used for predicting nonvolitional behavior by adding an additional predictor, perception of control over performance of behavior [26]. Since adopting or acceptance have to do with behavior intention, and if seen based on TPB, intention toward the behavior influencing the certain person behavior, and there are 3 construct that determine or give an influence to behavior intention, namely: attitude, perceived behavior control and subjective norm [27].

Based on TPB model that said attitude, perceived behavior control and subjective norm have an influence toward behavior intention [18, 19, 27]. Then, on TAM, there are 2 variables namely: perceived ease of use and perceived usefulness that said those 2 variables can be

575

Int. J Sup. Chain. Mgt   Vol. 9, No. 5, October 2020

used for determining a person intention for using a certain technology with behavior intention as the mediator of actual system use. Also, in TAM, attitude & perceived usefulness have an influence toward behavior intention and perceived ease of use and perceived usefulness have an influence toward attitude [28]. The addition of external variables can give an impact to the model that probably can affecting the behavior intention of an individual. External variables considered to be externally related to the design of the system and can be different in each system [29]. Based on that references, at this model will be add with some external variables or user acceptance factors, since that factors can give an influence.

The model that used in this research is a combination of some existing model such as TRI, TRAM, TAM, UTAUT, Delon and McLean's IS Success Model and TPB as the main model. In this model, external factors that have an influence on the social media-based digital supply chain management application are also used, namely accessibility, aesthetic design, information architecture design, innovativeness, navigation, security, precision, privacy, system integration and trust in economy. All that external factors are based on existing research that have been done. The proposed model is hoped can give an explanation and better understanding regrading problem or issue for the success of adopting social media-based digital supply chain management application.

3. Results and Discussion
3.1. Research Participants

Social media is about building relationships, and it can be used in a supply chain to build and grow relationships among trading partners. Information and knowledge gathered from the use of social media by supply chain partners can provide insight into various issues of the supply chain, industry, competition, etc. It can also be used to build relationships and determine key performance indicators, such as on-time performance of a carrier or slow payments from a shipper. Some companies use social media to solicit information from their customers as a platform for making recommendations for improvement. The supply chain operations reference (SCOR) is a process reference model developed by PricewaterhouseCoopers LLP (PwC) and endorsed by the Supply-Chain Council (SCC) as the cross-industry de facto standard diagnostic tool for supply chain management. In the SCOR Model, there are five key events: Plan, Make, Source, Deliver, and Return. Social media can be used to capture information associated with various supply chain events. Research procedures in the form of questionnaires, physical and online have been distributed to 203 participants with different demographic backgrounds. There are 203 respondents who had filled out the questionnaire. From 203 respondents, there are 151 respondents with physical questionnaire dan 52 respondents with online respondents. 48 % of respondents aged 14-17 years old, 86% of respondents were male, 57% of respondents had a high school/vocational education level. 42% use of social media for 1-3 hours per day, 48% have moderate ICT skills, and 45% use computers 1-3 hours per day for different purposes. The economy can announce real-time important news or updates on the page

3.2. Hypothesis Test

Social media is about building relationships, and it can be used in a supply chain to build and grow relationships among trading partners. Information and knowledge gathered from the use of social media by supply chain partners can provide insight into various issues of the supply chain, industry, competition, etc. It can also be used to build relationships and determine key performance indicators, such as the on-time performance of a carrier or slow payments from a shipper. Some companies use social media to solicit information from their customers as a platform for making recommendations for improvement. The hypothesis of this study, can be seen on table 1.

Table 1. Research Hypothesis

No.	Hypothesis
H_1	Accessibility variable has an influence on Attitude variable in the use of Jakarta Aman Application
H_2	Attitude variable has an influence on Behaviour Intention variable in the use of Jakarta Aman application
H_3	Aesthetic design variable has an influence on Attitude variable in the use of Jakarta Aman Application
H_4	Information Architecture Design variable has an influence on Attitude variable in the use of Jakarta Aman Application
H_5	Facilitating Condition variable has an influence on Perceived Behavioral Control variable in the use of Jakarta Aman application
H_6	Innovativeness variable has an influence on Attitude variable in the use of Jakarta Aman Application
H_7	Navigation variable has an influence on Attitude variable in the use of Jakarta Aman application
H_8	Participation Efficiacy variable has an influence on Perceived Behavioral Control variable in the use of Jakarta Aman application
H_9	Perceived Behavioral Control variable has an influence on Behaviour Intention variable in the use of Jakarta Aman application
H_{10}	Perceived Ease of Use variable has an influence on on Attitude variable in the use of Jakarta Aman Application
H_{11}	Perceived Usefulness variable has an influence on Attitude variable in the use of Jakarta Aman Application
H_{12}	Precision variable has an influence on Attitude variable in the use of Jakarta Aman Application
H_{13}	Privacy variable has an influence on Attitude variable in the use of Jakarta Aman Application
H_{14}	Security variable has an influence on Attitude variable in the use of Jakarta Aman Application
H_{15}	System Integration variable has an influence on Attitude variable in the use of Jakarta Aman Application
H_{16}	Trust in Economy variable has an influence on Attitude variable in the use of Jakarta Aman Application

576

Int. J Sup. Chain. Mgt   Vol. 9, No. 5, October 2020

3.3. Reliability Test

For the reliability test, value from 2 calculations will be used, namely: Cronbach's Alpha and Composite Reliability. The value of Cronbach's Alpha and Composite Reliability that may be had from each construct is 0 to 1. If the value of Cronbach's Alpha and Composite Reliability is 0.6-0.7, that means the value is acceptable, and if the value of Cronbach's Alpha and Composite Reliability is 0.7-0.9, that means the value is satisfying [30].

Table 2. Cronbach's Alpha

Construct	Cronbach's Alpha
Accessibility	0.686
Aesthetic Design	0.882
Attitude	0.796
Behavior Intention	0.748
Facilitating Condition	0.880
Information Architecture Design	0.816
Innovativeness	0.804
Navigation	0.818
Participation Efficacy	0.734
Perceived Behavior Control	0.799
Perceived Ease of Use	0.886
Perceived Usefulness	0.621
Precision	0.770
Privacy	0.872
Security	1.000
System Integration	0.716
Trust in Economy	0.950

Table 3. Composite Reliability

Construct	Composite Reliability
Accessibility	0.813
Aesthetic Design	0.914
Attitude	0.880
Behavior Intention	0.854
Facilitating Condition	0.943
Information Architecture Design	0.882
Innovativeness	0.884
Navigation	0.891
Participation Efficacy	0.847
Perceived Behavior Control	0.909
Perceived Ease of Use	0.929
Perceived Usefulness	0.801
Precision	0.893
Privacy	0.912
Security	1.000
System Integration	0.839
Trust in Economy	0.964

According to the result of table 2 and 3, all variable construct has Cronbach's Alpha value higher than 0.60 and has Composite Reliability value higher than 0.80. From this result, can be said that all the variables are reliable.

Hypothesis test need to be done for make sure that the submitted hypothesis can be accepted or rejected. Hypothesis test in this research are from value of path coefficient (Original Sample (O)) and T-Statistics of each hypothesis. First is determining the path coefficient and the value of path coefficient must be higher or lower than 0. If the value higher than zero it means the path relation has a positive effect and if the value lower than zero it means the path relation has a negative effect. However, if the value is getting closer to zero, then the relation will be weaker. Path coefficient value that can be said accepted is above 0.1 or lower than -0.1 [30].

After getting the value of path coefficient, its need for check regarding the relation is significant or not significant. For determine the relation is significant or not, can be seen at the relation T-Statistics value. In this research, used two-tailed at 5% that make the value of T-Statistics must be higher than 1.96 in order to be considered significant [31]. The result of hypothesis test can be seen at table 4.

577

Int. J Sup. Chain. Mgt   Vol. 9, No. 5, October 2020

Table 4. Hypothesis Test Results

Hypothesis	Path Relation	Original Sample (O)	T Statistics	Conclusion
H_1	Accessibility → Attitude	-0.099	1.336	Not Significant
H_2	Attitude → Behavior Intention	0.182	2.148	Significant
H_3	Aesthetic Design → Attitude	-0.081	0.806	Not Significant
H_4	Information Architecture Design → Attitude	0.063	0.730	Not Significant
H_5	Facilitating Condition → Perceived Behavioral Control	0.381	6.130	Significant
H_6	Innovativeness → Attitude	0.333	3.440	Significant
H_7	Navigation → Attitude	0.187	1.899	Not Significant
H_8	Participation Efficacy → Perceived Behavioral Control	0.339	4.617	Significant
H_9	Perceived Behavioral Control → Behavior Intention	0.606	8.148	Significant
H_{10}	Perceived Ease of Use → Attitude	0.045	0.637	Not Significant
H_{11}	Perceived Usefulness → Attitude	-0.014	0.171	Not Significant
H_{12}	Precision → Attitude	0.130	1.428	Not Significant
H_{13}	Privacy → Attitude	0.201	2.120	Significant
H_{14}	Security → Attitude	0.043	0.607	Not Significant
H_{15}	System Integration → Attitude	0.077	0.804	Not Significant
H_{16}	Trust in Economy → Attitude	0.168	3.019	Significant

3.4. Discussion

According to the result of hypothesis test of the related application design, there are nine hypotheses with the conclusion are not significant. Those are:

- H_1 (Accessibility → Attitude)

Accessibility refer to the availability of the technology can be access with high response anywhere and anytime [32]. Based on the results of hypothesis testing, can be said for user that access of the application anywhere and anytime with high response cannot affect attitude of user toward using the social media-based digital supply chain management application. The reason could be because the application developer has not provided access to the digital supply chain management application anywhere and anytime with a high response or users right now, don't need access to the digital supply chain management application anywhere and anytime with a high response.

- H_3 (Aesthetic Design → Attitude)

Aesthetic Design refer to the attractive design of the interface for maintaining user interest [33]. Based on the results of hypothesis testing, can be said for user that attractive interface design cannot affect attitude of user toward using the social media-based digital supply chain management application. The reason could be because the application developer has not made the application with an attractive design or users right now, don't need application with an attractive design.

- H_4 (Information Architecture Design → Attitude)

Information Architecture Design refer to design of interface that prioritize placement of important information on strategic place [33]. Based on the results of hypothesis testing, can be said for user that placement of information on strategic places cannot affect attitude of user toward using the digital supply chain management application. The reason could be because the application developer has not placed information on strategic place or users right now, don't need placement of information in strategic places.

- H_7 (Navigation → Attitude)

Navigation refer to the ease of changing interface page for getting needed information [34]. Based on the results of hypothesis testing, can be said for user that ease of changing interface page cannot affect attitude of user toward using the digital supply chain management application. The reason could be because the application developer has not made the application have an ease of changing interface page or users right now, don't need ease of changing interface page

- H_{10} (Perceived Ease of Use → Attitude)

Perceived Ease of Use refer to belief that using certain technology will be easy, with no effort [29]. Based on the results of hypothesis testing, can be said for user that using the application with no effort cannot affect attitude of user toward using the digital supply chain management application. The reason could be because the application developer has not made the application can be used with no effort or users right now, don't need application that can be used with no effort

- H_{11} (Perceived Usefulness → Attitude)

Perceived Usefulness refer to belief that using certain technology will improve user working performance [29]. Based on the results of hypothesis testing, can be said for user that using the application for improving user performance cannot affect attitude of user toward using the digital supply chain management application. The reason could be because the application developer has not been able to make the applications that if used can improve user working performance or users right now,

don't need to use application that can improve their working performance

- H_{12} (Precision → Attitude)

Precision refer to the obtained information is matches with the actual data or event that really happened [35]. Based on the results of hypothesis testing, can be said for user that information that match with actual data that obtained from the application cannot affect attitude of user toward using the digital supply chain management application. The reason could be because the application developer has not been able to make the applications provide an information that match with the actual data or users right now, don't need application that can provide an information that match with the actual data.

- H_{14} (Security → Attitude)

Security refer to the feeling of safe because the data belong to user has are well protected [33]. Based on the results of hypothesis testing, can be said for user that feel of safe because data own by user that well protected cannot affect attitude of user toward using the digital supply chain management application. The reason could be because the application developer has not been able to make sure data own by user are well protected or users right now, don't need feel of safe because data own by user are well protected

- H_{15} (System Integration → Attitude)

System Integration refer to the interaction with system by user and other related agencies using the existing system [35]. Based on the results of hypothesis testing, can be said for user that interaction using integrated system with other related agencies cannot affect attitude of user toward using the digital supply chain management application. The reason could be because the application developer has not been able to make interaction within the application using integrated system with other related agencies or users right now, don't need interaction within the digital supply chain management application using integrated system with related agencies

According to the result of hypothesis test of the related application design, there are three hypotheses with the conclusion are significant. Those are:

- H_6 (Innovativeness → Attitude)

Innovativeness refer to tendency for becoming forefront in use of technology [36]. For other economy that want to develop or implement social media-based digital supply chain management application, need give attention to innovativeness factor, as this research study proven that innovativeness influence attitude.

- H_{13} (Privacy → Attitude)

Privacy refer that people sure that their personal data are not misused [33]. For other economy that want to develop or implement social media-based digital supply chain management application, need give attention to privacy factor, as this research study proven that privacy influence attitude.

- H_{16} (Trust in Economy → Attitude)

Trust in Economy refer to the belief from people that economy can do their job properly [37]. For other economy that want to develop or implement social media-based digital supply chain management application, need give attention to trust in economy factor, as this research study proven that trust in economy influence attitude.

The real condition that occur on the community of Jakarta citizen that becoming the users of social media-based digital supply chain management, they will only use the application for once, according their needs. After it, they will uninstall the application or still let the application installed on their device, but not used at all. This condition can explain that accessibility, aesthetic design, information architecture design, navigation, precision, security and system integration factor are not affecting or do not have effect on attitude.

4. Conclusion

Using social media as a way for implementing digital supply chain management by making social media-based digital supply chain management application, can be a solution for public e-participation. However, economy need to identify and understanding regrading citizen participation for achieving public acceptance or adoption.

Factors that studied at this research, affecting the adoption or acceptance of social media-based digital supply chain management application by citizen as the user. By using many model such as TRI, TRAM, TAM, UTAUT, Delon and McLean's IS Success Model and TPB that already proven about user acceptance or adoption and other external factor that also give an influence, that adjusted according the need for developing the proposed adoption model of social media-based digital supply chain management application.

E-participation with actual community participation using social media-based digital supply chain management applications, at first glance it seems easy. The fact is not, it can be said complex for making people participate. Since participation is related to psychological of human behavior, the use of TPB can be said to be very appropriate. The model that used in this study has factors that influence the behavioral intentions of the community for doing e-participation using social media-based digital supply chain management applications. This research can be used as a reference in terms of e-participation from the community in the process of adopting social media-based digital supply chain management applications with the viewpoint of the community as its users. By using research model that developed, it can also be used to deepen the reader's knowledge of the problems that occur in the process of adopting digital supply chain management applications by the public as its users. For future research, the model that used must be supported by broader empirical data for the testing process of the model used in this study.

In this study, an evaluation was conducted by examining the relations of certain factors that exist in social media-based digital supply chain management applications in the Special Capital Region of Jakarta. The evaluation in this study was conducted to find out about the readiness and functionality of social media-based digital supply chain management applications according the needs from the public. The results of this study indicate that there are standard variations between attributes and services provided through the social media-based digital supply chain management applications. Based on the results of this evaluation, it is expected that the economy can improve and develop digital supply chain management applications to be even better,

according to the needs of the community as its users. Based on the results of the literature review that has been done, in this study, there were about 17 main variables that influenced the trust of public in digital supply chain management services. The results of hypothesis test in this study are:

- Accessibility does not have effect on Attitude
- Attitude has significant positive effect on Behavior Intention
- Aesthetic Design does not have effect on Attitude
- Information Architecture Design does not have effect on Attitude
- Facilitating Condition has significant positive effect on Perceived Behavioral Control
- Innovativeness has significant positive effect on Attitude
- Navigation does not have effect on Attitude
- Participation Efficacy has significant positive effect on Perceived Behavioral Control
- Perceived Behavioral Control has significant positive effect on Behavior Intention
- Perceived Ease of Use does not have effect on Attitude
- Perceived Usefulness does not have effect on Attitude
- Precision does not have effect on Attitude
- Privacy has significant positive effect on Attitude
- Security does not have effect on Attitude
- System Integration does not have effect on Attitude
- Trust in Economy has significant positive effect on Attitude

Economy's still need to consider and provide solutions regarding the needs of users who can't or have not been met. After that, the economy can use it for future digital supply chain management development or strategies. The goal remains, to increase public participation and trust in economy.

Acknowledgments

References

[1] Huggins, C., & Frosina, N. (2017). ICT-driven projects for land governance in Kenya: disruption and digital supply chain management frameworks. GeoJournal, 82(4), 643–663. https://doi.org/10.1007/s10708-016-9710

[2] Kraemer, K., & King, J. L. (2011). Information Technology and Administrative Reform. International Journal of Electronic Economy Research, 2(1), 1–20. https://doi.org/10.4018/jegr.2006010101

[3] Putra, D. A. D., Jasmi, K. A., Basiron, B., Huda, M., Maseleno, A., Shankar, K., & Aminudin, N. (2018). Tactical steps for digital supply chain management development. International Journal of Pure and Applied Mathematics, 119(15).

[4] Yeh, H. (2017). The effects of successful ICT-based smart city services: From citizens' perspectives. Economy Information Quarterly, 34(3), 556–565. https://doi.org/10.1016/j.giq.2017.05.001

[5] Papa, A., Santoro, G., Tirabeni, L., & Monge, F. (2018). Social media as tool for facilitating knowledge creation and innovation in small and medium enterprises. Baltic Journal of Management, 13(3), 329–344. https://doi.org/10.1108/BJM-04-2017-0125

[6] Haro-de-Rosario, A., Sáez-Martín, A., & del Carmen Caba-Pérez, M. (2018). Using social media to enhance citizen engagement with local economy: Twitter or Facebook? New Media and Society, 20(1), 29–49. https://doi.org/10.1177/1461444816645652

[7] Graham, M. W., Avery, E. J., & Park, S. (2015). The role of social media in local economy crisis communications. Public Relations Review, 41(3), 386–394. https://doi.org/10.1016/j.pubrev.2015.02.001

[8] Mulyani, S., Listiyono, H., Susanto, S. A., Studi, P., Informatika, M., Informasi, F. T., & Stikubank, U. (2018). Menakar Keberhasilan E-Gov Dalam Perspektif E-Participation. 171–181.

[9] Centeno, C., van Bavel, R., & Burgelman, J.-C. J. C. (2005). A Prospective View of digital supply chain management in the European Union. Electronic Journal of Digital supply chain management, 3(2), 59–66. http://www.ejeg.com/issue/download.html?idArticle=43%5Cnhttp://www.ejeg.com/volume-3/vol3-iss2/v3-i2-art1.htm

[10] Reddick, C. G., Chatfield, A. T., & Ojo, A. (2017). A social media text analytics framework for double-loop learning for citizen-centric public services: A case study of a local economy Facebook use. Economy Information Quarterly, 34(1), 110–125. https://doi.org/10.1016/j.giq.2016.11.001

[11] Alarabiat, A., Soares, D. S., & Estevez, E. (2017). Predicting Citizens Acceptance of Economy-led e-Participation Initiatives through Social Media: A Theoretical Model. The Hawaii International Conference on System Sciences, 50, 2855-2864.

[12] Khadzali, N. R., & Md Zan, Z. (2019). Exploring E-participation Policy and Initiatives in Malaysia. International Journal of Law, Economy and Communication, 4(16), 10-25.

[13] Naranjo Zolotov, M., Oliveira, T., & Casteleyn, S. (2018). E-participation adoption models research in the last 17 years: A weight and meta-analytical review. Computers in Human Behavior, 81, 350–365. https://doi.org/10.1016/j.chb.2017.12.031

[14] Naranjo-Zolotov, M., Oliveira, T., Cruz-Jesus, F., Martins, J., Gonçalves, R., Branco, F., & Xavier, N. (2019). Examining social capital and individual motivators to explain the adoption of online citizen participation. Future Generation Computer Systems,

92, 302–311. https://doi.org/10.1016/j.future.2018.09.044

[15] Chugunov, A. V., Kabanov, Y., & Misnikov, Y. (2017). Citizens versus the economy or citizens with the economy: A tale of two e-participation portals in one city - A case study of St. Petersburg, Russia. ACM International Conference Proceeding Series, Part F128003, 70–77. https://doi.org/10.1145/3047273.3047276

[16] Khoirunnida, Hidayanto, A. N., Purwandari, B., Kartika, D., & Kosandi, M. (2018). Factors influencing citizen's intention to participate electronically: The perspectives of social cognitive theory and digital supply chain management service quality. 2017 International Conference on Advanced Computer Science and Information Systems, ICACSIS 2017, 2018-Janua, 166–171. https://doi.org/10.1109/ICACSIS.2017.8355028

[17] Yadav, R., & Pathak, G. S. (2017). Determinants of Consumers' Green Purchase Behavior in a Developing Nation: Applying and Extending the Theory of Planned Behavior. Ecological Economics, 134, 114–122. https://doi.org/10.1016/j.ecolecon.2016.12.019

[18] Han, T. I., & Stoel, L. (2017). Explaining Socially Responsible Consumer Behavior: A Meta-Analytic Review of Theory of Planned Behavior. Journal of International Consumer Marketing, 29(2), 91–103. https://doi.org/10.1080/08961530.2016.1251870

[19] Senger, I., Borges, J. A. R., & Machado, J. A. D. (2017). Using the theory of planned behavior to understand the intention of small farmers in diversifying their agricultural production. Journal of Rural Studies, 49, 32–40. https://doi.org/10.1016/j.jrurstud.2016.10.006

[20] Madyatmadja, E. D., & Kiswanto, L. J. (2019). Social media-based digital supply chain management application feature. International Journal of Recent Technology and Engineering, 8(3), 4203–4209. https://doi.org/10.35940/ijrte.C6036.098319

[21] Sulthan, M., & Istiyanto, S. B. (2019). Model Literasi Media Sosial Bagi Mahasiswa. Jurnal ASPIKOM, 3(6), 1076. https://doi.org/10.24329/aspikom.v3i6.280

[22] Mulyana, A., & Parikesit, B. (2019). Manajemen Rantai Pasok: Implementasi dan Efektivitas Media Sosial Dalam Pengelolaan Bisnis Radio (Studi pada Radio 89.6FM IRadio Jakarta). MIX: Jurnal Ilmiah Manajemen, 9(3), 498-512

[23] Singh, P., Dwivedi, Y. K., Kahlon, K. S., & Sawhney, R. S. (2019). Intelligent monitoring and controlling of public policies using social media and cloud computing. IFIP Advances in Information and Communication Technology, 533, 143–154. https://doi.org/10.1007/978-3-030-04315-5_11

[24] Sabani, A., Deng, H., & Thai, V. (2019). Evaluating the development of Digital supply chain management in Indonesia. ACM International Conference Proceeding Series, 254–258. https://doi.org/10.1145/3305160.3305191

[25] Vlachokyriakos, V. (2013). Designing voting technology for participation. ACM International Conference Proceeding Series, 271–272. https://doi.org/10.1145/2479724.2479768

[26] Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for further research. Journal of Applied Social Psychology, 28(15), 1429–1464. https://doi.org/10.1111/j.1559-1816.1998.tb01685.x

[27] Greaves, M., Zibarras, L. D., & Stride, C. (2013). Using the theory of planned behavior to explore environmental behavioral intentions in the workplace. Journal of Environmental Psychology, 34, 109–120. https://doi.org/10.1016/j.jenvp.2013.02.003

[28] Samaradiwakara, G. D. M. N., & Gunawardena, C. G. (2014). Comparison of Existing Technology Acceptance Theories and Models to Suggest a Well Improved Theory / Model. International Technical Sciences Journal, 1(1), 21–36. http://ejcem.eu/wp-content/uploads/2016/03/itsj-spec-1-1-3.pdf

[29] Revythi, A., & Tselios, N. (2019). Extension of technology acceptance model by using system usability scale to assess behavioral intention to use e-learning. Education and Information Technologies, 24(4), 2341–2355. https://doi.org/10.1007/s10639-019-09869-4

[30] Hair, J. F., Hult, G. T. M., & Ringle, C. M. (n.d.). Joseph F. Hair, G. Tomas M. Hult, Christian M. Ringle, Marko Sarstedt - A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) [2nd ed.]-Sage (2017).pdf.

[31] Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2018). Article information: When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2–24.

[32] Yang, Z., Cai, S., Zhou, Z., & Zhou, N. (2005). Development and validation of an instrument to measure user perceived service quality of information presenting Web portals. Information & Management, 42(4), 575-589

[33] Ranganathan, C., & Ganapathy, S. (2002). Key dimensions of business-to-consumer web sites. Information & Management, 39(6), 457-465.

[34] McKinney, V. R., Yoon, K., & Zahedi, F. (2002). The Measurement of Web-Customer Satisfaction: An Expectation and Disconfirmation Approach. Information Systems Research, 13(3), 296-315.

[35] Iivari, J. (2005). An empirical test of the DeLone-McLean model of information system success. ACM SIGMIS Database 36(2), 8-27.

[36] Parasuraman, A., & Colby, C. L. (2014). An Updated and Streamlined Technology Readiness Index: TRI 2.0. Journal of Service Research, 18(1), 59-74.

[37] Morgeson, F. V., Vanamburg, D., & Mithas, S. (2011). Misplaced trust? Exploring the structure of the digital supply chain management-citizen trust relationship. Journal of Public Administration Research and Theory, 21(2), 257–283. https://doi.org/10.1093/jopart/muq006