

BUSINESS REVIEW

FACTORS INFLUENCING SMALL MEDIUM ENTERPRISE'S BEHAVIOR IN ADOPTING E-FULFILLMENT SERVICES

Florentina Kurniasari^A, Dennis Gunawan^B, Prio Utomo^C



ARTICLE INFO

Article history:

Received 30 Dezember 2021

Accepted 07 February 2022

Keywords:

Technology Acceptance Model;

Trust;

Adoption;

Fulfillment Services.



ABSTRACT

Purpose: Since the SMEs were the key players in these current digital businesses in Indonesia, the purpose of this study is to analyse the benefit in adopting the efulfillment services by considering the variable of technology acceptance model that was related with trust.

Design/Methodology/Approach: This research was used three exogenous variables, namely: perceived usefulness, perceived ease of use and perceived security and risksfree. In addition, the research considered the adoption in new e-fulfillment services platform as endogenous variable with trust as intervening variable. The data collected from the SME's who are located in the Jakarta and its surrounding areas and further analyzed statistically using Structural Equation Model approach.

Findings: The key finding of this research was trust played a significant role in influencing the customer adoption of the e-fulfillment platform. The research also showed that perceived ease of used was the main factor in creating customer trust. The maximum usage of e-fulfillment services allowed the SME's to focus more the product development and marketing activities.

Research, Practical & Social Implications: SME's would enjoy strong business competitive positioning if they were able in adopting the e-fulfillment services.

Originality/Value: Since the concept of e-fulfillment services were quite new in Indonesia, the study recommends the needs to increase the awareness and knowledge to SME's by ensuring the benefit of this new platform.

Doi: https://doi.org/10.26668/businessreview/2022.v7i3.0550

^C Assistant Professor, Head of Technology Management Department, Universitas Multimedia Nusantara, Indonesia. E-mail: prio.utomo@umn.ac.id Orcid: https://orcid.org/0000-0001-8725-2275



^A Associate Professor, Dean Faculty of Business, Universitas Multimedia Nusantara, Indonesia. E-mail: florentina@umn.ac.id Orcidid: https://orcid.org/0000-0001-5528-247X

^B Assistant Professor, Lecturer at Information Engineering Department, Universitas Multimedia Nusantara, Indonesia. E-mail: dennis.gunawan@umn.ac.id Orcidid: https://orcid.org/0000-0003-4224-6378

FATORES QUE INFLUENCIAM O COMPORTAMENTO DAS PEQUENAS E MÉDIAS EMPRESAS NA ADOÇÃO DE SERVIÇOS DE E-FULFILLMENT

RESUMO

Objetivo: Uma vez que as PMEs foram os principais atores nestes negócios digitais atuais na Indonésia, o objetivo deste estudo é analisar o benefício de adotar os serviços de preenchimento eletrônico, considerando a variável do modelo de aceitação de tecnologia que estava relacionada com a confiança.

Projeto/Metodologia/Aproximação: Esta pesquisa foi utilizada três variáveis exógenas, a saber: percepção da utilidade, percepção da facilidade de uso e percepção da segurança e ausência de riscos. Além disso, a pesquisa considerou a adoção na nova plataforma de serviços de preenchimento eletrônico como variável endógena com confiança como variável interveniente. Os dados coletados das PMEs que estão localizadas em Jacarta e seus arredores e analisados estatisticamente usando a abordagem do Modelo de Equação Estrutural.

Descobertas: A principal conclusão desta pesquisa foi que a confiança teve um papel significativo para influenciar a adoção da plataforma de preenchimento eletrônico por parte do cliente. A pesquisa também mostrou que a percepção da facilidade de uso foi o principal fator na criação da confiança do cliente. O uso máximo dos serviços de preenchimento eletrônico permitiu que as PMEs concentrassem mais as atividades de desenvolvimento e marketing do produto.

Pesquisa, Implicações Práticas e Sociais: As PMEs desfrutariam de um forte posicionamento competitivo comercial se fossem capazes de adotar os serviços de preenchimento eletrônico.

Originalidade/Valor: Como o conceito de serviços de preenchimento eletrônico era bastante novo na Indonésia, o estudo recomenda a necessidade de aumentar a conscientização e o conhecimento para as PMEs, garantindo o benefício desta nova plataforma.

Palavras-chave: Modelo de Aceitação de Tecnologia, Confiança, Adoção, Serviços de Fulfillment.

FACTORES QUE INFLUYEN EN EL COMPORTAMIENTO DE LAS PEQUEÑAS Y MEDIANAS EMPRESAS A LA HORA DE ADOPTAR LOS SERVICIOS DE CUMPLIMIENTO ELECTRÓNICO

RESUMEN

Objetivo: Dado que las PYMES son los actores principales de los actuales negocios digitales en Indonesia, el objetivo de este estudio es analizar el beneficio de la adopción de los servicios de e-fulfillment teniendo en cuenta la variable del modelo de aceptación de la tecnología que se relaciona con la confianza.

Diseño/Metodología/Enfoque: En esta investigación se utilizaron tres variables exógenas, a saber: utilidad percibida, facilidad de uso percibida y seguridad percibida y sin riesgos. Además, la investigación consideró la adopción en la nueva plataforma de servicios de e-fulfillment como variable endógena con la confianza como variable interviniente. Los datos se recogieron de las PYME situadas en Yakarta y sus alrededores y se analizaron estadísticamente mediante un modelo de ecuaciones estructurales.

Resultados: La principal conclusión de esta investigación es que la confianza desempeña un papel importante en la adopción por parte de los clientes de la plataforma de e-fulfillment. La investigación también demostró que la facilidad de uso percibida era el principal factor para crear confianza en el cliente. El uso máximo de los servicios de e-fulfillment permitió a las PYME centrarse más en el desarrollo de productos y en las actividades de marketing. **Investigación, implicaciones prácticas y sociales:** Las PYMES disfrutarían de un fuerte posicionamiento competitivo empresarial si fueran capaces de adoptar los servicios de e-fulfillment.

Originalidad/Valor: Dado que el concepto de servicios de e-fulfillment es bastante nuevo en Indonesia, el estudio recomienda la necesidad de aumentar la concienciación y el conocimiento de las PYME asegurando el beneficio de esta nueva plataforma.

Palabras clave: Modelo de Aceptación de la Tecnología, Confianza, Adopción, Servicios de Cumplimiento.

INTRODUCTION

Many companies in Indonesia had to create and implement transformation strategies as the response of the Covid-19 pandemic. E-commerce businesses in Indonesia with huge market size was growing rapidly at 23% and it showed by the gross merchandise value (GMV) that reached US\$105 billion (Google & Temasek, 2020). There was 31% increase of online shoppers spending (Central Bureau of Statistics, 2019) who 59% of them bought the products through e-commerce once a week (Snapcart, 2020) and would still continue to shop online even after COVID19 was over (Central Bureau of Statistics, 2019). On the contrary the e-commerce penetration rate before pandemic was low at around 0.5% and changed into 1% during the pandemic (LEK Consulting, 2021).

The technology advancement created the larger market for e-commerce in Indonesia that was dominated with SME's who have difficulties in managing their products with handling, storing, delivery and logistics cost were the main problems (Stern, 2020). The finding research of Febransyah & Goni (2020) showed that the most important criteria for SME's supply chain competitiveness Indonesia was the logistic costs and the supporting infrastructure. SME's must be able to manage the fulfillment process as it's a vital distribution chain that can deliver the products and services to customers efficient and effectively (Kariuki, 2014).

The growing of ICT infrastructure in Indonesia support the needs of SME's in digitalizing its business process, entire manufacturing and supply chain including the fulfillment activities (Sutrino, Fachrunnisa, Widodo, 2022). E-fulfillment services provide an alternative solution as the information system frequently strengthens corporate processes (Almazan, et.al, 2017), facilitates speedy decision-making (Mishra, 2015) as well as to fulfill orders (Baquero, 2016). The e-fulfillment service was identify as a digital integrated computerbased system that provided the ordering, procurement and warehousing services in speedier and efficient (Nafie & Eltahir, 2018). E-Fulfillment services become a promising new business model as a response of the SME's need for more affordable logistic (Kariuki, 2014). Efulfillment services platforms become alternative solution in providing the distribution and logistics activities to end-user, including: storing, packaging and delivering the products or services (Nafie & Eltahir, 2018). Online order will be sending by suppliers to warehouse as inventory until ready to be shipped and sold to the customers (Isac, 2014). The services assisted SME's with the funding limitation in preparing own warehouse since the warehouse cost calculated based on the percentage of the product sold (Bilbao, et.al., 2016). Stock inventory in the warehouse can be calculated as an asset to get financing using the inventory financing scheme (Kawa, 2017).

The 2020 E-commerce Fulfillment Trend Report mentioned that there are five challenges in the e-commerce industries around the world, namely: transportation, scalability, inventory management, order processing and financial profit (Saddle Creek, 2020). Having more understanding about the customer, SME's would be able to get comprehensive analysis

to give appropriate fulfillment sources at the fastest and most economical service. Using fulfillment services based technology was expected to overcome these barriers even costly (Kawa, 2021).

Therefore, there's an urgency to initiate a new technology platform in form of e-fulfillment service which was be able to assist the SME's in improving their performances. The familiarity of fulfillment services among the SME's as the co-operation models was still limited. The new e-fulfillment services should bring more benefit to the customers since the SME's that running e-commerce businesses were depending on the potential of the logistics, understood as processes of storage, transportation, inventory availability, and management of logistics processes (Dembinska, 2016).

The adoption in using E-fulfillment services was depending on the value that the SME's want to attain, including the functional suitability, usability, and security of the program (Dreheeb, et.al, 2016). The three variables in the technology acceptance model included: perceived usefulness, perceived ease of use, and perceived risk-free and security played a significant role in in creating customer (Zhang, et.al, 2017). Therefore, the study was expected to ensure the benefits which in adopting e-fulfillment services by considering the variables of technology acceptance model with trust as the mediating variable.

LITERATURE REVIEW

Technology Acceptance Model (TAM)

Some studies used the Technology Acceptance Model (TAM) approach in analyzing the adoption of various new technology that was introduced by the organization (Venkatesh & Bala, 2009). This model specifically measures the willingness to adopt, accept and using the new technology (Venkatesh & Bala, 2009). Initially, the TAM approached only using two factors that related to perceived usefulness and perceived ease of use (Venkatesh & Bala, 2009). The TAM theory was further becoming Unified Theory of Acceptance and Use of Technology (Phonthanukitithaworn, et.al, 2016) by adding another variable that was related with the Perceived Security and Risk Free (Kurniasari, et. al, 2021). The adoption of the new system would be easy if the SMEs felt that the new technology would bring more efficiency that was refer to the extent which the new technology produces better both financial and non-financial performances compared with the resources used in specific conditions (Kurniasari, et.al, 2020).

Perceived usefulness

Perceived usefulness related with the ability of the new technology in assisting the customers to finish their works (Kurniasari, et. al, 2021) was the main consideration in customers intention in adopting this new technology (Phonthanukitithaworn, et.al, 2016). Venkatesh & Bala (2009) stated that individuals willing to accept the new technology only if given a benefit to the performances. Kurniasari, et.al (2021) in their research mentioned that perceived usefulness related with the functions that can meet the stated needs. It should bring functional suitability in terms of functional completeness, correctness and appropriateness when it was used under certain conditions (Kurniasari, et.al., 2020).

Perceived ease of use

Perceived ease of use is related with the ability of the new system in providing more simply, easiness feature in using the technology (Phonthanukitithaworn, et.al, 2016) and operating the system (Kurniasari, et.al, 2021). The customers were willing to adopt the technology if new technology was hassle-free and less effort (Zhang, et.al, 2017). Kurniasari, et.al. (2021) explained that perceived ease of use had a significant effect on using the new application. The usability of system should cover the interface design of the system, the more adaptable program and easy to operate, learn and access (Kurniasari, et.al, 2020).

Perceived Security and Risk-Free

Perceived security and risk-free related with the perception in responding some negative risks including that might be arise when having adopting the new technology platform (Kurniasari, et.al., 2021). Higher risk platforms would not attract the individuals in adopting the new technology (Khosravi & Hussin, 2014). Kawa (2017) mentioned that the new technology should develop the security system that would protect the system from danger and unidentified access (Isaac, 2014).

Trust

Trust was defined as a secure and safety feeling when facing and adopting the new technology program (Kurniasari, et.al, 2020). Trust could be developed by increasing literacy and knowledge about the advantages of the e-fulfillment services business model that was able to giving solution in inventory system problems (Isac, 2014). Trust also referred to the degree of people's acceptance in adopting the new technology considered its positive impact (Kurniasari, et.al, 2021). Kurniasari, et.al. (2020) mentioned that the level of trust was related

with the aspect of reliability which refer to the sustainability of the performance level when used under specific criterias. The confidence toward the integrity and reliability of the efulfillment services (Phonthanukitithaworn, et.al., 2016) could be further measured in terms of the platform's confidence level, trustworthiness in keeping the promises and commitments to customers.

E-Fulfillment Services

E-fulfillment services is an integrated virtual cost chain started out from shopping for to selling, helps record goods coming into and leaving the warehouse, facilitate the making of financial transaction reviews which includes debt and receivables, in order that the enterprise organization can reduce opportunities for mistakes in recording monetary statements and other transactions (Ouassarah, et.al, 2015). E-fulfillment services could be more explained in terms of its accuracy rate which refer to the on-time delivery products or services to the right customers at the right conditions (Kawa, 2017). The process itself covered the process of receiving the goods, storing in the warehouse, processing or packaging, shipping, delivering to customers and returns if any (Isac, 2014). The basic process of the fulfillment services is the receipt of products ordered from providers through an internet store to the warehouse, in which the products are then stored. On behalf of the consumer orders, operator fulfil all orders, prepare and package the product, put together all the required documents, add advertising materials and handling the return of goods. Using the e-fulfilment services, SME's can focus on sales and marketing, and give the logistic issues to an external professional who provided the technology advancement platforms (Semeijn, 2005).

Small Medium Enterprise (SME)

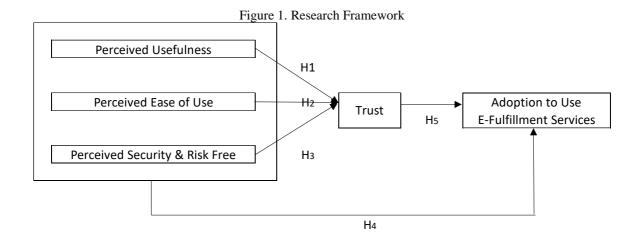
The economic growth of Indonesia was supported by the strength role of its SME, with over 50 million small-medium enterprises (SMEs), representing a few 97% of all businesses and contributing no less than 30% of GDP increase in 2021 (Kurniasari, et.al, 2021). The SME's was characterized by the limited amount of capital, no assets for collateral and having difficulties in accessing the market and financial services (Snapcart, 2020).

Adoption of E-Fulfillment Services

The adoption in the usage of the e-fulfillment services can be measured by using the SME's behavioral intention in accepting its new platform. The SMEs are willing to use the new technology if they found that the system brings more value in terms of: price competitiveness

and in the same time giving more performance efficiency (Kurniasari, et.al, 2021). Brundage (2015) mentioned that online goods were 22% more likely to be returned because of unperfect order and defect, compared to the 10% of goods that are bought offline. SME's increasingly care about receiving information about the shipment in real time, and simplified and free returns of goods. The usage of the new e-fulfillment services was expected to meet these expectations (Kawa, 2020).

Based on the explanation above, the studies were able to expand a theoretical framework, as it shown in the following Figure 1:



Based on the proposed framework in figure 1, the study was able to create the following hypotheses:

- H1: Perceived Usefulness has a positive impact on SME's trust in adopting new efulfilment services. Perceived usefulness become priority consideration in growing trust for the SME's in in acquiring and using the new e-fulfillment services (Ouassarah, et.al, 2015).
- H2: Perceived Ease of Use has a positive effect on SME's trust in adopting e-fulfillment services. Perceived ease of use created SME's trust if they felt that they can easily use the new e-fulfillment services (Isac, 2014).
- H3: Perceived Security and Risk-Free has also has a positive impact in creating SME's trust in adopting new e-fulfillment services. Lower risk platforms would develop customer trust more easily. SME's that used the new platforms look for safety reason, which is measured by integrated individual privacy protection, safe transactional information flow.
- H4: Perceived Usefulness, Perceived Ease of Use, and Perceived Security and Risk-Free together had a significant effect on SME's trust. The SME's trust was build if the new e-

fulfillment platform would be able to bring the usefulness and at the same time giving a safety feeling with lower risk in adopting the e-fulfillment services (Kurniasari, et.al, 2021).

H5: Trust had the most significant influence on the SME's adoption of new e-fulfillment services. Trust would lower the perception of uncertainty and will reduce the SME's reluctance in adopting the new e-fulfillment services (Andy, et.al, 2018).

RESEARCH METHODOLOGY

The research was using a descriptive method with single cross-sectional data collection (Malhotra et al., 2012). The purposive sampling method was used in deciding the appropriate target and the stratified random sampling method was conducted to get the representative of the population. This study was distributed to 254 SME's respondents who were located in Jakarta and its sub-urban areas (Bogor, Depok Tangerang and Bekasi). The respondents were asked to answer close-ended questions with a 1-5 Likert scale which divided into two section. The first section covered the demographic questions, and the second sections covered the main research questions. As this research had 18 indicators, the minimum sample of this research was 90 respondents as it follow the rule of thumb (n) x 5 = 90 respondents (Malhotra, 2012).

The Perceived Usefulness (PU) was measured by two indicators: functional suitability (PU1) and performance efficiency (PU2) (Kurniasari, 2021).

Perceived Ease of Use (PEOU) was analysed using five indicators, namely: User Interface Aesthetics (PEOU1); Learnability (PEOU2); Operability (PEOU3); Accessibility (PEOU4) and Adaptability (PEOU5) (Andry & Reynaldo, 2018). Perceived Security & Risk-Free was measured by following indicators: Confidentiality (RF1); Authenticity (RF2); Integrity (RF3) and Accountability (RF4) (Kawa, 2017).

The variable of Trust was measured by four indicators, included: The Confident Level (TR1); Trustworthy (TR2); Ability to Keep Promises (TR3) and Fault Tolerance (TR4) (Kawa, 2021).

Finally, the adoption in new e-fulfillment services would be measured by the On-time Delivery and Shipping (AD1) and Perfect Order (AD2) indicators (Suharsono, et.al, 2020). The primary data was statistically tested by the Structural Equation Model.

RESULTS AND DISCUSSION

Demographic data was able to summarize the profile of the respondents; 59.4% dents were male, with the majority being 26-45 years old (82.7%) and graduated at the Bachelor

Degree program (60.2%). 59.4% was the owner of the business while the rest is the Senior Management in the SME's business with almost 45% having working experience in more than five years. 63% SME's is related with the manufacturing, food & beverages and transportation industries. 76% SME's has around 50-150 employees in running daily operations. The business location of the SME's was varied in Jabodetabek area, which 26% located in Jakarta, 24% in Bekasi, 20% in Tangerang, 17% in Bogor followed by 13% located in Depok.

All the indicators had a strong correlation since the result of critical value of t > 0.687 using the Pearson correlation method. The Cronbach's Alpha coefficient had the value of 0.933, which meant that this research is reliable. The suitability of the research model was measured using the Confirmatory Factor Analysis (CFA) approach. Meanwhile, the correlation toward the latent variable was used in making an analysis of the structured model. The Goodness for Fit model in Table 1 explained that all indicators showed all the theories using in this research were perfect as testing results meet the estimated value. In addition, the R Square and Adjusted R Square value for each variable used in this research was summarized in Table 1 and 2.

Table 1. Summary for Goodness for Fit Model

GOF	Estimated	Testing	Conclusion			
Indicator	value	Result				
Absolute Fit Value						
GFI	$GFI \ge 0.900$	0.930	Good Fit			
RMSEA	RMSEA<0.08	0.028	Good Fit			
Incremental Fit Value						
NNFI	NNFI > 0.900	0.918	Good Fit			
NFI	NFI > 0.900	0.967	Good Fit			
AGFI	AGFI > 0.900	0.923	Good Fit			
RFI	RFI > 0.900	0.986	Good Fit			
IFI	IFI > 0.900	0.984	Good Fit			

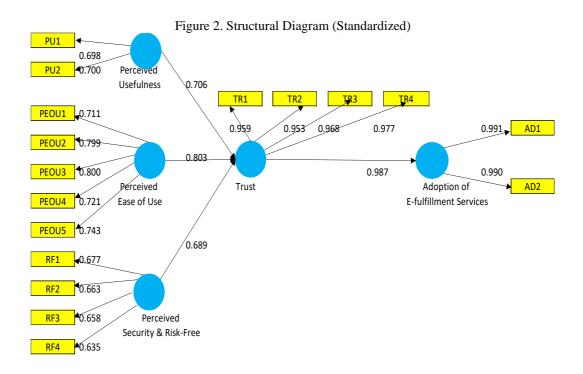
Source: Data Analysis using LISREL 8.80

Table 2. R-Square and Adjusted R-Square Value

Variables	R- Square	Adjusted R-Square
Perceived Usefulness	0.043	0.036
Perceived Ease of Use	0.452	0.345
Perceived Security & Risk-Free	0.008	-0.085
Trust	0.892	0.873

Source: Data Analysis using LISREL 8.80

The hypotheses were testing using a path diagram and the result could be summarized in Figure 2 and Figure 2.



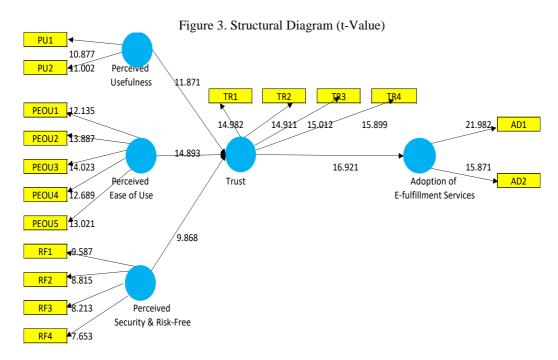


Table 3 was the summary of the hypotheses testing result.

Table 3. Hypotheses Testing

Hypotheses	Variables	Coefficient Standard	t- Value	Conclusion
H1	PU> TR	0.706	11.871	Accepted
H2	PEOU> TR	0.803	14.893	Accepted
Н3	RF> TR	0.689	9.868	Accepted
H4	PU, PEOU, RF > TR	0.876	13.857	Accepted
H5	TR> AD	0.987	16.921	Accepted

The structural equation model for this research can be explained as as follow:

$$Trust = (0.706 \times Perceived\ Usefulness) + (0.803 \times Perceived\ Ease\ of\ Use) + (0.689 \times Perceived\ Security\ and\ Risk-Free)$$

$$Adoption\ of\ New\ E-fulfillment\ Services = (0.987 \times Trust)$$

Following was the further explanation of each hypothesis testing:

H1: Perceived Usefulness had a positive impact on creating customer trust, since the t-value showed > 2 (11.871) and the effect value showed 0.706.

The finding was aligned with the research of Kurniasari (2021), who mentioned that perceived usefulness had creating customer trust in adopting the new technology. This study supported the result of the study provided by Sudarsono, et.al (2020) who mentioned that perceived usefulness related with the ability of the new e-fulfillment services to create functional suitability by giving more completeness, correctness and appropriateness value. The willingness of customer to adopt of the new e-fulfillment services was strongly related with the capabilities of the platform provider in responding their needs (Andry, et.al, 2016). Customers were seeking the new technology that could gave more performance efficiency in terms of more time saving and maximum resource utilization (ISO/IEC, 2018).

H2: Perceived Ease of Use had a positive effect on developing customer trust, since this study has the t-value of 14.893 with the effect value of 0.803.

Perceived ease of use had proven to have the highest effect to create customer trust compared with other factors in Technology Acceptance Model such as: perceived usefulness and perceived security and risk-free. This research supported the previous study conducted by Sudarsono, et.al (2020) who explained that customers would trust to the new technology if they are easier to operate the new platform. Users will reluctant in adopting the new technology if they found difficulties and troubles in accessing the digital platform (Nafie & Eltahir, 2018). The degree of easiness to operate the new platform would reflect in the low level to learn and

adapt (Kawa, 2021). User Interface (UI) Aesthetics and User Experience (UX) Design were also the major consideration in adopting the new e-fulfillment services. Colorful, simple, informative and attractive features of UI would strengthen customer trust in adopting new platforms (Isac, 2014).

H3: Perceived Security and Risk-Free was proven to influence SME's trust in adopting new e-fulfillment services since the study showed the t-value of 9.86 with the effect value of 0.689.

Perceived security and risk-free had the lowest effect on creating SME's trust in adopting the new technology. The finding aligned with the research done by Walchek (2015), who explained the secure platform would create the customer secrecy and privacy. Major security risks related with the electronic platform included: insecure communication, mistake in validating the input data, insecure data warehouse, customer's privacy code, untrusted authentication and authorization controls and bad encryption (Cypress Data Defense, 2020).

H4: Perceived Usefulness, Perceived Ease of Use, and Perceived Security and Risk-Free all together had a positive influence on building the SME's trust in adopting the new efulfillment services, with the t-value of 13.857 and the effect value of 0.876.

These three variables are proven to be able to develop SME's trust especially in adopting the new e-fulfillment services. Perceived usefulness was strongly related with the ability of the e-fulfillment platform in providing the functional suitability and performance efficiency (Kim, et.al, 2015). Meanwhile, easiness to operate the new platform would also create the customer's trust as well as the ability of the platform to give an unintentional disclosure. Therefore, these findings supported the findings previously analyzed by Walchek (2015), who mentioned that SME's trust was positively related with the delivery of superior services.

H5: Trust was the highest significant influence on the SME's decision to adopt the new e-fulfillment services platform, since the study is able to have the t-value of 16.921 with the effect value of 0.987.

The finding supported the previous study conducted by Andry & Renaldo (2018), who mentioned that trust would be created if the new e-fulfillment technology provides the highest degree of information accuracy and lowest fault level of tolerance. Highest customer trust meant that the new technology gave highest confident level of usage, trustworthy, less errors and able to keep the promises (Kawa, 2021). The trust can be developed by educating the SME's and provided the adequate knowledge about e-fulfillment services platform (Mokhlis, et.al, 2021).

In addition, the adoption of the new technology platform will be elevated when the customer's believed that more attractive and interactive features readily available in that new platforms (Gu, Oh, and Wang 2013).

CONCLUSION

The SME's adoption in using the new e-fulfillment services was mostly influenced by the development of trust. The study was able to found that trust was the major influence in SME decisions to adopt the new technology. All the variables in Technology Acceptance model included: perceived usefulness, perceived ease of use, and perceived security and risk-free, had a significant impact on in building the SME's trust. The new e-fulfillment technology should be able to offer some innovative features (Kurniasari, 2021) that more focus on user-friendly features and experiences without any technical hassles.

The finding of the study showed that SME's would enjoy strong business competitive positioning if they were able in adopting the e-fulfillment services. SME's were having difficulties in technology adoption due to the financial and resources constraints and the concept of e-fulfillment services was still new in Indonesia. Therefore, there's a need for more active involvement of the government and association to assist the SME's in adopting the technology by increasing the awareness and knowledge to SME's by ensuring the benefit of this new platform.

The value of the R-square in this research that showed 0.892 meant that trust had a strong impact on a SME's adoption of the new fulfillment services platform with an 89.2% effect. Therefore, the further research should consider other variables that can be useful in developing trust, such as: extensive customer knowledge which strongly related with the customer literacy about the product (Kurniasari, 2020) and customer engagement to fulfill the customers' requirement in having of a useful, informative and enjoyable experience in adopting the new e-fulfillment services platform. Since the research only collected the data from the SME's that are domiciled in Jabodetabek areas, the further research should expand the sample of the research outside Jabodetabek areas to give more generalized result.

ACKNOWLEDGEMENTS

The research was conducted under the 2022 Research Grant provided by Kementerian Pendidikan, Kebudayaan, Riset dan Teknologi, Republik Indonesia with the Contract No. 0002-RD-LPPM-UMN/P-HD/VI/2022.

REFERENCES

Almazán, D. A., Tovar, Y. S., and Quintero, J. M. M. (2017), Influence of Information Systems on Organizational Results, Contaduría y Adm.

Andry, J. F. & Reinaldo (2018), Order Fulfillment Information System for Small Medium Business, Journal of Business and Audit Information Systems, Page 1-8 Vol. 1 (No. 1): no 1 – no 8. Th. 2018. p-ISSN 2615-6431.

Andry, J. F., Agung, H., Erlyana, Y. (2016), Management Information System for Order Fulfillment: A Case Study, Proceeding of 9th International Seminar on Industrial Engineering and Management, Vol 9, ISSN:1978-774X.

Andry, J. F., Suroso, J. S., and Bernanda, D. Y. (2018), Improving Quality of SMEs Information System Solution with ISO 9126, Journal Theory Application Information Technology.

Baquero, A.V., Palcios, R.C., and Molloy, O. (2016), Real-time Business Activity Monitoring and Analysis of Process Performance on Big-Data Domains, Telemathematic. Informatics. Brundage, T. (2015). Is Your Warehouse Ready for E-Commerce? [Accessed 20.01.2016]. Retrieved from http://speconthejob.com/is-your-warehouse-ready-for-e-commerce/ Central Bureau of Statistics (2019), Statistik E-Commerce 2019.

Cypress Data Defense (2020). 7 Mobile App Security Risks and How to Mitigate Them.

Del Ser J. Bilbao MN, Perfecto C, Salcedo-Sanz S. (2016), A harmony search approach for the selective pick-up and delivery problem with delayed drop-off, in: Kim, J. H., Geem Z. W., Harmony Search Algorithm, Springer, Berlin, Heidelberg. 2016;121-131. http://dx.doi.org/10.1007/978-3-662-47926-1_13

Dembińska, I. (2016), The Impact of E-Commerce Development on the Warehouse Space Market in Poland, Economics and Culture, 13(2).

Dreheeb, A. E., Basir, N., and Fabil, N. (2016). Impact of System Quality on Users' Satisfaction in Continuation of the Use of e-Learning System, International Journal e-Education, e-Business, e- Management e-Learning.

Febransyah, A., & Camelia Goni, J. I. (2020), Measuring the supply chain competitiveness of e-commerce industry in Indonesia, Competitiveness Review.

Google, & TEMASEK (2020), e-Conomy SEA 2020: Southeast Asia's internet economy hits an inflection point, In Google TEMASEK. blog.google.com.

Gu, Rui, Lih-Bin Oh, and Kanliang Wang (2013), Differential Impact of Web and Mobile Interactivity on E-retailers' Performance, Journal of Organizational Computing and Electronic Commerce, 23, 4, 325—49.

https://doi.org/10.1016/j.procs.2017.11.452 https://doi.org/10.1108/APJBA-10-2014-0119

https://marketeers.com/menanti- pertumbuhan-belanja-pangan-online-di-indonesia/ https://snapcart.global/how-big-is-your-brands-opportunity-in-online-grocery-platforms/

Kurniasari. F., Gunawan. D., Utomo. P. (2022) Factors Influencing Small Medium Enterprise's Behavior in Adopting E-fulfillment Services

https://www.bps.go.id/publication/2019/12/18/fd1e96b05342e479a83917c6/statistikecommerce- 2019.html

https://www.cypressdatadefense.com/blog/mobile-app-security-risks/

 $\underline{https://www.forbes.com/sites/neilstern/2020/04/27/e-commerce-and-grocery-this-time-its-real/?sh=648e14c25d65}$

Isac C. (2014), E-fulfillment—a new challenge for electronic business. Annals of the University of Petrosani, Economics, 14(1):121-128.

ISO/IEC (2010), Software Engineering — Software Product Quality Requirements and Evaluation (SQuaRE) — Data Quality Model (ISO/IEC 25012:2008(E), ISO/ IEC.

Kariuki, J. G. (2014), An Exploration of the Guiding Principles, Importance and Challenges of Monitoring and Evaluation of Community Development Projects and Programs, International Journal Business Social Science, vol. 5, 1, p.140–147.

Kawa A. (2017), Fulfillment service in e-commerce logistics, LogForum, 13 (4), 429-438.

Kawa, A. (2020), Out-of-Home Delivery as a Solution of the Last Mile Problem in E-commerce. In Smart and Sustainable Supply Chain and Logistics—Trends, Challenges, Methods and Best Practices; Springer: Cham, Switzerland.

Kawa, A. (2021). Fulfilment as Logistics Support for E-Tailers: An Empirical Studies, Sustainability, 13, 5988.

Khosravi & Hussin (2014), A Review of Customer Knowledge Management Importance, Journal of Soft Computing and Decision Support Systems, 1(1), 45-52, 2014.

Kim Su Jung & Rebecca Jen-Hui Wang & Edward C. Malthouse (2015), The Effects of Adopting and Using a Brand's Mobile Application on Customers' Subsequent Purchase Behavior. Journal of Interactive Marketing 31, 28–41.

Kurniasari F, Putri FP, Firmansyah A. (2021), The role of financial technology to increase financial inclusion in Indonesia, International Journal of Data and Network Science, (5):391–400.

Kurniasari, F. et.al. (2020), The Effect of Perceived Usefulness, Perceived Ease of Use, Trust, Attitude and Satisfaction into Continuance of Intention in Using Alipay, Management & Accounting Review, Vol. 19, No.2.

L.E.K Consulting (2021), Covid-19 a catalyst for growth in Indonesia's e-grocery market. https://www.consultancy.asia/news/3941/covid-19-a-catalyst-for-growth-in-indonesias-e-grocery-market

Malhotra (2012). Marketing Research. 4th ed., Pearson Education.

Marketeers (2018), Menanti Pertumbuhan Belanja Pangan Online di Indonesia.

Mishra, L., Kendhe, R., and Bhalerao, J.(2015), Review on Management Information Systems (MIS) and its Role in Decision Making, International Journal Scientific Research Publication.

Mokhlis, S., Nik Hussin, N. S., Nizam, N. Z., Mohd Noor, N. A., & Muslim, N. A. (2021). Predicting Malaysian university students' intent to pursue retailing career: Applicability of theory of planned behavior. International Journal of Professional Business Review, 7(1), e0277. https://doi.org/10.26668/businessreview/2022.v7i1.277

Nafie, F. M., and Eltahir, M. A. (2016), Real-Time Monitoring and Analyzing Business Process Performance, vol. 6, no. 7, p.31–35.

Ouassarah, A. A., Aversengy, N., Fournety, X., Petit, J. M., Revol, R., and Scuturici, V. M. (2015), Understanding Business Trends from Data Evolution with Tornado, Proceedings - International Conference on Data Engineering.

Phonthanukitithaworn, C., Sellitto, C., & Fong, M. (2016), An Investigation of Mobile Payment (m-payment) Services in Thailand. Asia-Pacific Journal of Business Administration, 8(1), 37-54.

Semeijn, J.; van Riel, A.C.; van Birgelen, M.J.; Streukens, S. (2005), E-services and offline fulfilment: How e- loyalty is created, Management Service Quality International Journal, 15, 182–194.

Snapcart (2020), How big is your brand's opportunity in online grocery platforms?.

Stern, N. (2020), E-Commerce and Grocery: This Time It's Real. Forbes.Com.

Sudarsono, B.G.; Lestari, S.P.; Martino, C. & Bani, A.U. (2020), Order Fulfillment Application Testing for Small Medium Business Using ISO 25010I, Technology Report of Kansai University, ISSN: 04532198 Volume 62, Issue 07, August, 2020.

Sutrisno, Fachrunnisa.O., Widodo (2022), The Effectiveness of Directing Optional Activities as Capital for Small Medium Enterprises Based on Digitalization in the Crisis, International Journal of Professional Business Review, Vol.7, No.2, p.01-23.

Venkatesh, V., & Bala, H. (2009), Technology Acceptance Model 3 and a Research Agenda on Interventions, Decision Sciences, 39(2), 273–310. https://doi.org/10.1111/j.15405915.2008.00192.x

Walchek, S. (2015), The unbundling of finance. Tech-Crunch.

Zhang, Y., Li, H., Hai, M., Li, J., & Li, A. (2017), Determinants of Loan Funded Successful in Online P2P Lending, Information Technology and Quantitative Management Advances in Economic and Business, 5, 11-17.