Determinants of Indonesian E-Grocery Shopping Behavior After Covid-19 Pandemic Using the Technology Acceptance Model Approach

Florentina Kurniasari[1] and Winda Trisna Riyadi[2]

[1,2]Technology Management Department, Universitas Multimedia Nusantara, Indonesia

Abstract— The increasing number of e-grocery start-ups and COVID19 pandemic have accelerated the growth of e-grocery services in Indonesia. In fact, the e-grocery adoption is low compare with other e-commerce product categories such as fashion and electronics. Customers are considering some factors including trust, risk, benefit (usefulness) and the level of ease of use before make a decision to shop online grocery. The objective of this study is to determine whether all these factors affect trust and finally the adoption in shopping for grocery products online and whether the Indonesian consumers will return to shopping for grocery products offline after the COVID19 pandemic. This research provided a new perspective by integrating Technology Acceptance Model Approach with trust as the intervening variable. Quantitative research was conducted by distributing questionnaire among the 195 respondents who had used e-grocery/shopping services. All data collection was analyzed using PLS-SEM (Partial Least Square – Structural Equation Model). The results of this study indicate that perceived risks, perceived usefulness, and perceived ease of use have a positive effect on trust. The study proven that trust had a significant effect in the adoption of e-grocery platform among Indonesian shoppers. The e-grocery platform should offer innovative and consistent products or services to keep their customers buy the groceries online even after the COVID-19 pandemic is over especially for the older generation who are more enjoyed to buy at the conventional markets.

Keywords— Technology Acceptance Model, Perceived Risk, Perceived Ease of Use, Perceived Usefulness; Trust, E-grocery Adoption.

I. INTRODUCTION

Indonesia enjoyed as the most growing e-commerce country in the regional region. The gross merchandise value (GMV) reached US$105 billion with 59% of it coming from the e-commerce transactions and expected to grow at 23% or reached US$ 172 billion in the year 2025 [1]. The COVID 19 pandemic has significantly accelerated the adoption of e-grocery shopping behavior due to massive restrictions on social movements. The recent survey showed that 47% of the e-grocery shoppers are new users from the younger generations who were buying grocery products such as: groceries, food and beverages (F&B), fast moving consumer goods (FMCG) included personal and home care. Furthermore, 76% of the e-grocery shoppers would continue to shop online even after COVID19 passed [1]. F&B and groceries are the most sold types of products in e-commerce throughout the year 2019 [2].

Because of its population, Indonesia is becoming a huge market size with potential buyers who are willing to shop online grocery. According to Snapcart's survey of Online Grocery Shopping Habits in May 2020, 59% of e-grocery shoppers in Indonesia have used e-commerce sites to shop with minimum shopping frequency once a week [3].

COVID-19 accelerates the adoption of e-grocery shopping phenomenally. Online spending in Indonesia increased by 31% during this pandemic [2]. Research institute Redseer said more than 60% of customers started buying groceries online when the COVID19 pandemic hit, and more than half said they would continue shopping for groceries online after COVID19 passed. Pandemic situation leveraged the awareness of Indonesian towards e-grocery shopping.

Figure 1 showed that despite its high growth and huge market size, grocery is the product category with the lowest e-commerce penetration compared with other categories such as fashion and electronic. The penetration of e-grocery in Indonesia as of 2019 was only 0.3 - 0.5% and during the COVID-19, the penetration improved at 0.8-1% [4].
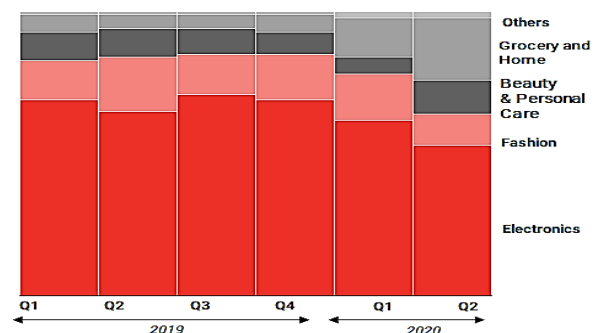
(Source: www.redseer.com, 2020)
Figure 1: *Penetration of each category in Indonesia e-commerce business*

This under-penetrated category mostly caused by the complexity in handling and storing the products and the delivery issues due to the high logistics costs and vast delivery range area [5]. Febransyah & Goni research showed that logistics costs are the most important criteria for the supply chain competitiveness of the e-commerce industry in Indonesia, with a degree of importance of 33.19%; followed by infrastructure with a degree of importance of 29.4% [6].

Even with penetration of grocery category is still very low, there's still a potential growth in e-grocery businesses. There is a need to get a deep understanding of consumer behavior in shopping e-grocery. The research on e-grocery adoption in Indonesia is still limited and difficult to find a comprehensive data including the e-grocery market value in Indonesia [7].

Previous research related to the adoption of e-grocery discusses various aspects such as economic and situational factors that trigger the adoption of online grocery shopping, as well as many discussions about factors that affect customer adoption of online grocery shopping using Technology Acceptance Model (TAM) approach. Some factors that influence e-grocery adoption include: perceived risk; perceived ease of use and perceived usefulness. These factors were expected to influence trust as the key variable in attracting the customer adoption of e-groceries. The objective of the study was to to determine whether perceived risk; perceived ease of use and perceived usefulness will create trust and finally affect the adoption in shopping for grocery products online and whether the Indonesian consumers will return to shopping for grocery products offline after the COVID19 pandemic.

II. LITERATURE REVIEW

A. E-Grocery E-Commerce
Retail management system involves direct interface interaction with customers and coordination of business activities from start to finish—from the concept or design stages of products, offerings, to customer delivery and post-delivery services. The growing of internet penetration across the countries had blossomed the digital or online retail channel. The digital retail channel brought the opportunities for the sellers to sell their product or services into the virtual space and allowed them to have wider spectrum of customers.

E-grocery e-commerce is a retail management which focus on selling groceries online and offer more convenience shopping and fast delivery [8]. E-grocery shoppers more concerns about the quality or freshness of the perishable products and the availability of certain products that are needed [8]. According to [9], grocery shopping is considered very stressful due to factors such as over-crowded and long queues. Some shoppers prefer to buy groceries and other daily necessities products online due to the convenience factor, the simplicity and speed in settling the transaction [8].

B. Technology Acceptance Model
Technology Acceptance Model (TAM) was used as an approach in determining and analyzing some significant factors that would influence shopper behavior in adopting the new e-grocery platform. [10] explained that TAM model was be able to measure the ability of individual in accepting and finally adopting with the new technology [11]. TAM theory emphasized on some important factors such as: perceived usefulness, perceived ease of use [10], and later on was enriched with the perceived risks factors [12].

C. Perceived Risks
Perceived risks was defined as the risks factors that were considered by shoppers when buying the online groceries [13]. These risks were related with the Perceived Performance-Risk if the online shoppers did not receive the products as expected; Perceived Time-Risk if online shoppers experienced delay in receiving the products, and Perceived Privacy-Risk which refer to the security concerns while paying the transaction bills.

D. Perceived Ease of Use
According to [13], the perception of ease of use is about the extent to which a person believes that using a particular system can eliminate effort in carrying out his activities by maximizing the feature in that application. Perceived ease of use defined as an easiness and problem free in using the new technology platform [14]. [15] explained that ease of use had a positive effect into individual behaviour in using the new technology application [16; 11; 17]. Furthermore, [13] also explained that perceived ease of use can be measured some indicators, including: easy to use which referred to the easiness in shopping for groceries products online either through an application or a website; easy to become skillful in learning how to shop groceries products in an online application; easy to follow order procedures using the guidelines information provided by the platform and un-hassle online grocery shopping.

E. Perceived Usefulness
Perceived Usefulness defined as the level of benefits at which grocery shoppers believed that using a particular system can improve their performance in shopping in more efficient ways [13]. [18] identified three constructs for shopping activities that are considered as a smart shopping: energy saving or time saving, money saving and proper purchase. [18] classified the smart shopping

activities into two stages in which in the first stage, the e-grocery shoppers were looking for information and setting-up a shopping plan or budget. The second stage covered the buying activities based on the shopping plan and budget in order to save money, energy and have an appropriate product. The e-grocery shoppers had a tendency to minimize the monetary cost or non-monetary cost and in the same time they were able to maximize the benefit.
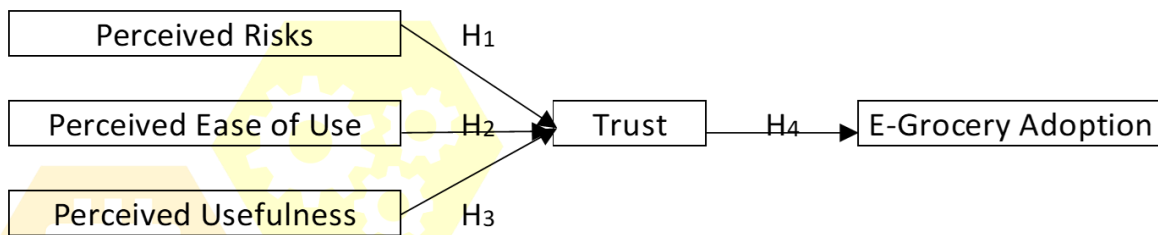
F. Trust
Trust related at the consumer's level of confidence toward the integrity and reliability of the e-groceries provider platform [19], which covered following aspects such as: confident level, trustworthy and the ability of the platforms in keeping the promises and commitments to their e-grocery shoppers.

G. E-Grocery Adoption
The adoption in using the e-grocery platform can be measured by the shoppers' behavioral intention in accepting the new technology. The shoppers are willing to buy grocery products if they found that the price is competitive; free delivery services; and buying online grocery whenever possible.

Based on the explanation of the theories above, the following is the proposed research theoretical framework:

Figures 2: Research Theoretical Framework

Based on the proposed framework, the study was being able to develop some hypotheses as follows:

H1: Perceived Risks has a positive influence on creating Trust among E-Grocery Shoppers. [20] in his research which integrated the TAM theory, trustworthiness, perceived risk and consumer traits found that a perceived risk had an impact into non-adopter buyers with high ICT experience. In the online shopping context, [21] explained that perceived risk had influence into trust in the online shopping industries. In the context of online payment, [22] explored the effect of the perceived risks into trust and stated that the higher risks perceived by the customers would reduce their trusts in using the digital platform. Therefore, lower risk platform would create the customer trust easier [23].

H2: Perceived Ease of Use has a positive effect on creating Trust among E-Grocery Shoppers. In the integrated study of personality traits, perceived risk and Technology Acceptance Model on the online shopping behavior, it found that perceived ease of use had a significant effect into trust [21]. [24] stated that the online shoppers would trust the e-commerce platform once they felt easy in using the new platform.

H3: Perceived Usefulness has a positive effect on creating Trust among E-Grocery Shoppers. [25] in their research of determining the factors which influence the merchant's intention in using the mobile wallet technology found that there was a positive relationship between the perceived usefulness into trust. Positive relationship between perceived usefulness of online review into trust was also found the the previous research of online shopping in Mexico [26].

H4: Trust has a significant effect on E-Grocery Adoption. [27] found that the aspect of trust toward web retailer would influence customer's intention to do online transaction. Trust was the important aspects in patient's acceptance in using online health services [19]. [26] also concluded that trust had a positive influence into customer's intention in the developing countries to buying products online.

III. RESEARCH METHODOLOGY
This research was a hypotheses testing study to describe the influence of perceived usefulness, perceived ease of use, and perceived risks into e-grocery adoption using trust as mediating variable [28]. This study distributed questionnaires into 195 respondents who were ever shopped for grocery products on online channels or e-commerce platform. The minimum age of the respondent is 17 years old since they already having the national identity card as a requirement in doing the financial transaction. As a quantitative research, the respondents were asked to answer close-ended questions with 1-5 Likert scale [29]. The first part of the questionnaires consists with the demographic questions and the second part of the questionnaires consist with

the research questions. This study had 21 indicators, therefore the minimum sample requirement was number of indicators (n) x 5 = 105 respondents [30].

[13] mentioned that perceived risks (PR) could be measured into four indicators, namely: Delivery Risks (PR1); Performance Risk/Product Quality Risks (PR2); Payment Security Risks (PR3) and Information Security Risks (PR4). Perceived ease of use (PE) was reflected into four indicators, such as: Easy to use (PE1), Easy to become skilfull (PE2); Easy to follow order procedure (PE3); Un-hazzle Procedures (PE4 [13]. Meanwhile, the Perceived of Usefulness (PU) could be measured with five indicators such as: Getting the right products (PU1); Save Effort (PU2); Save Time (PU3); Save money (PU4) and Convenient (PU5) [18]. Trust would be measured with the following indicators: Trustworthy (TR1); Keeps promises & commitments (TR2); Keep customer's best interest in mind (TR3)[31]; Effective in assisting to shop for groceries product (TR4) and Capable & proficient (TR5)[19]. Finally, the e-grocery adoption was measured by the three indicators, namely: the Competitive Price (AD1), Free Delivery Services (AD2) and use online grocery whenever possible (AD3)[13]. All the primary data further tested statistically using Structural Equation Model with Lisrel 8.80 software.

IV. RESULT & DISCUSSION

Demographic data explained the profile of the respondents; 73.5% respondents were female with the majority age being 30-40 years old (29%) followed by respondents who are 17-21 years old (24%) and between 26-29 years old (14%). Only 9% respondents are more than 50 years old and only 8% respondents between 22-25 years old. 42% respondents had monthly income at more than 7.5 and just only 29% respondents had monthly income less than 2.5 milliion Rupiah. 48% respondents were working as employees; 26% respondents were college students; 11% were entrepreneur and the rest were housewives. Majority of the respondents (63%) bought beauty and healthcare products more frequently and 82% of them bought the groceries products using marketplace platform. All indicators had strong correlation with the critical value of t > 0.671 using Pearson correlation method. Reliability test using Cronbach's Alpha coefficient showed the number of 0.918 which meant that this research is valid [32]. The Confirmatory Factor Analysis (CFA) was used to measure the fitness of the research model. Analysis toward the structured model were used to see the correlation toward the latent variable. The table 1 showed that only AGFI indicator had value less than < 0.90 and there were perfect theories in this research. The table 2 showed the value of R Square and Adjusted R Square for each variable:

Table 1. Design Summary for Goodness for Fit Testing Model

GOF Indicator	EstimatedValue	Testing Result	Conclusion
Absolute Fit Value			
GFI	GFI $\geq$ 0.90	0.90	Good Fit
RMSEA	RMSEA < 0.08	0.048	Good Fit
Incremental Fit Value			
NNFI	NNFI > 0.90	0.98	Good Fit
NFI	NFI > 0.90	0.97	Good Fit
AGFI	AGFI > 0.90	0.89	Marginal Fit
RFI	RFI > 0.90	0.96	Good Fit
IFI	IFI > 0.90	0.98	Good Fit

Source: Data Analysis using LISREL 8.80

Table 2: R-Square and Adjusted R-Square

Variables	R-Square	Adjusted R-Square
Perceived Risks	0.025	0.013
Perceived Ease of Use	0.461	0.434
Perceived Usefulness	0.032	0.021
Trust	0.987	0.863

Source: Data Analysis using LISREL 8.80

Meanwhile, the result of hypothesis testing using path diagram, could be explained as follow:
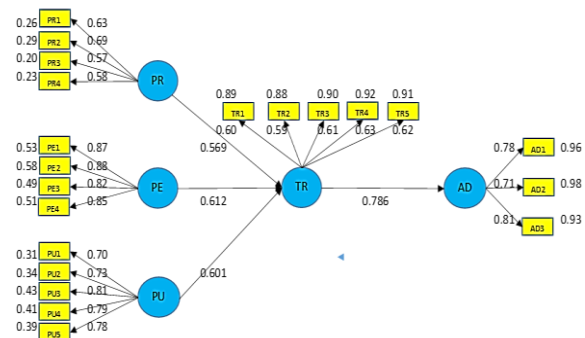

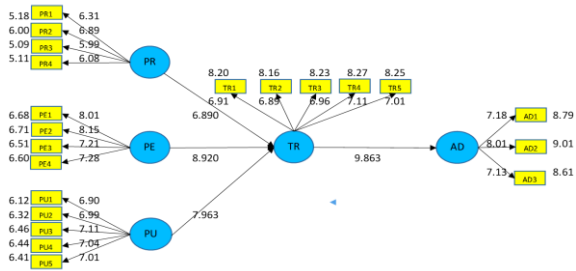**Figure 3:** *Structural Diagram (Standardized)*

Figure 4: Structural Diagram (t-Value)

The result of hypotheses testing could be explained in the following table:

Table 3: Result of Hypotheses Testing

Hypotheses	Variables	Coefficient Standard	*t-Value*	Statistical Conclusion
H$_1$	PR → TR	0.569	6.890	Data Supported
H$_2$	PE → TR	0.612	8.920	Data Supported
H$_3$	PU → TR	0.601	7.963	Data Supported
H$_4$	TR → AD	0.786	9.863	Data Supported

The research able to create a structural equation model as follow:

$$TR = 0.569*PR + 0.612*PE + 0.601*PU,$$
Errorvar. = 0.43 , R² = 0.783
(0.040)   (0.050)   (0.063)
6.890   8.920   7.963
AD = 0.786*TR, Errorvar. = 0.43 , R² = 0.862
(0.054)
9.863

The result of hypotheses testing could be explained further:

H$_1$: Perceived Risks has a positive influence on creating Trust among E-Grocery Shoppers, with the t-value > 2 (6.890), with the effect value of 0.569. The finding showed that if the shoppers level of trust was higher than the perceived risk, the shoppers would more participate in e-grocery online transaction. On the contrary, if shoppers felt that the perceived risk was higher that trust, they did not want to take a risk and would refuse to do the online transaction. The research also showed that the shoppers trust toward e-grocery platform was related with security issues in using the platform. A higher safety protection level would increase the level of the buying groceries product through digital platform. The result supported previous study that explained that the safety protection had significant effect in e-commerce business [33] especially when the shoppers had to make an online payment for their transactions [11]. The finding also supported the research done by [34] who explained the secure platform would keep the secrecy of all the shoppers. The e-grocery platform should reduce the perceived risk by ensuring the freshness and quality of the products that delivered on time.

H$_2$: Perceived Ease of Use has a positive effect on creating Trust among E-Grocery Shoppers, with the t-value of 8.920 and the effect value of 0.612. This result of hypothesis testing showed that perceived of ease of use had significant influence into trust. The finding supported the previous research conducted by [20] who mentioned that the easiness to use the technology would increase the shoppers level of trust. The result also supported the previous research that mentioned that perceived ease of use had a significant effect into using the digital platform [35]. The previous research showed that perceived ease of use had a significant effect into attitude [16]. The less effort in using the e-groceries platform would encourage the shoppers to use and buy the grocery products more frequently [17]. If users found difficulties in accessing the digital platform, it would also influence their reluctant behaviour in adapting the new technology [14]. The result of this research also aligned with the previous study of [36] who explained that one key success factor for the digital platform providers to attract the users was the ability to provide the user interface (UI) and user experience design (UX). Most shopper were willing to adopt the e-grocery platform if they felt that the applications were easy to use, flexible, simple and understandable.

H$_3$: Perceived Usefulness has a positive effect on creating Trust among E-Grocery Shoppers, with the t-value of 7.963 and the effect value of 0.601. The findings showed that consumers perceived usefulness was related with the greater benefit that they got when buying online groceries compare with the offline one. Some benefits that they were experienced were: time saving, money saving and convenient [26]. The e-grocery shoppers paid greater attention in order to get the right products [25]. [37] found that perceived usefulness had positive and significant effect into trust into mobile payment and mobile wallet provider. Meanwhile, [21] found that perceived usefulness had positive effect into the online shopping intention. The research also showed that the shopper preferred to adopt the e-grocery platform if the platform was able to offer better services.

H$_4$: Trust has a significant effect on E-Grocery Adoption, with the t-value of 9.863 and the effect value of 0.786. The finding supported the previous study that mentioned trust as the major factor in creating customer

perception [12]. The customer preferred to choose the grocery platform that had positive credibility in public image [34]. The findings showed that the online shoppers considered the competencies and capabilities of the digital platform staffs in assisting and handling their problems. The e-grocery platform had to try hard in keeping their promises in delivering superior products. The finding supported the study conducted by [20] who mentioned that shoppers at the young generations were more adaptive in online businesses [16]. Older generation more worry about the security and privacy issues in doing online transactions and they were not familiar enough with the digital platform.

V. CONCLUSION AND RECOMMENDATION

Trust had the highest effect in influencing e-grocery adoption. Meanwhile, all the variables such as perceived risk, perceived ease of use and perceived usefulness had positive impact in developing the e-grocery shoppers trust. The e-grocery application platform provider should develop innovation that focus more on user-friendly features and experiences using more understandable languages and symbols. The R-square of this research showed the value of 0.862. It meant that even trust had a positive impact in e-grocery adoption with 86.2% effect, there might be other variables that could be considered in influencing trust, such as: social influence and customer knowledge.

The willingness of the shopper to continue buy the groceries product online even after pandemic COVID-19 was depending on the consistency of the e-grocery platform to provide the delivery services at quicker and in the same time maintain the quality of the product. Attractive promotion in social media and flexible pricing management system would increase the shopper's intention to adopt the e-grocery platform. In addition, the e-grocery platform could initiate the Cash on Delivery Programs (COD) in response to the security issues in settling the financial transaction when buying the e-groceries product.

REFERENCES

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

[2] Central Bureau of Statistics, "Statistik E-Commerce 2019," 2019. https://www.bps.go.id/publication/2019/12/18/fd1e96 b05342e479a83917c6/statistik-ecommerce-2019.html

[3] Snapcart, "How big is your brand's opportunity in online grocery platforms?," 2020. https://snapcart.global/how-big-is-your-brands-opportunity-in-online-grocery-platforms/

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

[5] Stern, N., "E-Commerce and Grocery: This Time It's Real. Forbes.Com," 2020. https://www.forbes.com/sites/neilstern/2020/04/27/e-commerce-and-grocery-this-time-its-real/?sh=648e14c25d65

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

[7] Marketeers, "Menanti Pertumbuhan Belanja Pangan Online di Indonesia," 2018. https://marketeers.com/menanti-pertumbuhan-belanja-pangan-online-di-indonesia/

[8] Jagani, K., Oza, F. V., & Chauhan, H., "Customer Segmentation and Factors Affecting Willingness to Order Private Label Brands: An E-Grocery Shopper's Perspective," 2020. https://doi.org/10.4018/978-1-7998-0257-0.ch011

[9] Aylott, R & Mitchell, V-W, "An exploratory study of grocery shopping stressors", British Food Journal, 101(9):683-700. October 1999. DOI: 10.1108/00070709910288883

[10] Venkatesh, V.; Bala, H., "Technology Acceptance Model 3 and a Research Agenda on Interventions, " Decision Sciences, Vol. 39 (2), pp. 273–315, 2009.

[11] Lee, C.-Y., Tsao, C.-H., & Chang, W.-C., "The Relationship between Attitude toward Using and Customer Satisfaction with Mobile Application Services," Journal of Enterprise Information Management, 28(5), pp. 680-697, 2015.

[12] Egbunike, F.C., Emudainohwo, O.B., Gunardi, A., Kurniasari, F., Prihanto, J.J.N., "Sustainability Accounting Practices and Disclosure by Multinational Corporation in Nigeria," Journal of Applied Economic Sciences, Vol. XIII, Summer, 3(57), pp. 751-759., 2018.

[13] Driediger, F., & Bhatiasevi, V., "Online grocery shopping in Thailand: Consumer acceptance and usage behavior," Journal of Retailing and Consumer Services, 48, 224–237, 2019.

[14] Lim, N, "Consumers' perceived risk: sources versus consequences," Electronic Commerce Research and Applications. Vol. 2(3), pp. 216-228, 2003.

[15] Mwiya, B., Chikumbi, F., Shikaputo, C., Kabala, E., Kaulung'ombe, B., & Siachinji, B., "Examining Factors Influencing E-Banking Adoption: Evidence from Bank Customers in Zambia," American Journal of Industrial and Business Management, 741-759, 2017.

[16] Liebana-Cabanillas, F., Higueras-Castillo, E., Molinillo, S., & Montanez, M. R., "Assesing The Role of Risk and Trust in Customers' Adoption of Online Payment System, " International Journal of Information Systems and Software Engineering for Big Companies, 99-113, 2018.

[17] Shipps, B., & Phillips, B., "Social Networks, Interactivity and Satisfaction: Assessing Socio-Technical Behavioral Factors as an Extension to Technology Acceptance, " Journal of Theoretical and Applied Electronic Commerce Research, 8(1), 35-52, 2013.

[18] Atkins, K. G., Kumar, A., & Kim, Y. K., "Smart grocery shopper segment, "Journal of International Consumer Marketing, 28(1), 42–53, 2016. https://doi.org/10.1080/08961530.2015.1082080.

[19] Mou, J., Shin, D. H., & Cohen, J., " Understanding trust and perceived usefulness in the consumer acceptance of an e-service: a longitudinal investigation," Behaviour and Information Technology, 36(2), 125–139, 2017. https://doi.org/10.1080/0144929X.2016.1203024

[20] Ma, L., "Understanding non-adopters' intention to use internet pharmacy: Revisiting the roles of trustworthiness, perceived risk and consumer traits," Journal of Engineering and Technology Management - JET-M, 59, 2021. https://doi.org/10.1016/j.jengtecman.2021.101613

[21] Wu, W. Y., & Ke, C. C., "An online shopping behavior model integrating personality traits, perceived risk, and technology acceptance, " Social Behavior and Personality, 43(1), 85–98, 2015. https://doi.org/10.2224/sbp.2015.43.1.85

[22] Yang, Q., Pang, C., Liu, L., Yen, D. C., & Michael Tarn, J., "Exploring consumer perceived risk and trust for online payments: An empirical study in China's younger generation," Computers in Human Behavior, 50, 9–24, 2015. https://doi.org/10.1016/J.CHB.2015.03.058

[23] Chen, D., & Han, C., "A Comparative Study of Online P2P Lending in the USA and China," The Journal of Internet Banking and Commerce. 17 (2), 12-15, 2012.

[24] Eisingerich, A.B., & Bell, S.J., "Perceived Service Quality and Customer Trust Does Enhancing Customers' Service Knowledge Matter?" Journal of Service Research, 10(3), 256-368, 2008.

[25] Singh, N., & Sinha, N., "How perceived trust mediates merchant's intention to use a mobile wallet technology," Journal of Retailing and Consumer Services, 52(June 2019), 101894, 2020. https://doi.org/10.1016/j.jretconser.2019.101894

[26] Ventre, I., & Kolbe, D., "The Impact of Perceived Usefulness of Online Reviews, Trust and Perceived Risk on Online Purchase Intention in Emerging Markets: A Mexican Perspective," Journal of International Consumer Marketing, 32(4), 287–299, 2020.

https://doi.org/10.1080/08961530.2020.1712293

[27] Pavlou, P. A., "Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model," International Journal of Electronic Commerce, 7(3), 101–134, 2003. https://doi.org/10.1080/10864415.2003.11044275

[28] Cooper, D.R., & Schindler, P. S., "Business Research Methods," 10th ed. Singapore: McGraw-Hill, 2014.

[29] Nunnaly, J, "Psychometric Theory," pp. 64-65, 1978.

[30] Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M.," A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)," (Second Edi). SAGE Publications Ltd.

[31] Dhagarra, D., Goswami, M., & Kumar, G., "Impact of Trust and Privacy Concerns on Technology Acceptance in Healthcare: An Indian Perspective," International Journal of Medical Informatics, 141, 104164, 2020.

https://doi.org/10.1016/j.ijmedinf.2020.104164

[32] Malhotra, "Marketing Research (4th ed.)," SAGE Publication. pp. 76-78, 2012.

[33] Meng, F., "What Determinants of Lending Decision for Chinese Peer-to-Peer Lenders? Profile of Finance Management," University of Twente, Faculty of Behavioral, Management and Social Sciences, 2016.

[34] Walchek, S., "The unbundling of finance," Tech-Crunch. pp.3-9, 2015.

[35] Khosravi and Hussin: A Review of Customer Knowledge Management Importance, "Journal of Soft Computing and Decision Support Systems," Vol.1 (1), pp. 45-52, 2014.

[36] Chen, D., Lai, F., & Lin, Z., "A trust Model for Online Peer-to-Peer Lending: A Lender's Perspective," Information Technology Management, 5(4), 239-254, 2014.

[37] Park, J., Amendah, E., Lee, Y., & Hyun, H., "M-payment service: Interplay of perceived risk, benefit, and trust in service adoption," Human Factors and Ergonomics in Manufacturing, 29(1), pp 31–43, 2019. https://doi.org/10.1002/hfm.20750