



ADVANCED INTERNATIONAL JOURNAL OF
BUSINESS, ENTREPRENEURSHIP AND SMES
(AIJBES)

www.aijb.es.com



A CONCEPTUAL STUDY ON THE IMPACT OF ONLINE SPENDING BEHAVIOR TOWARDS E-COMMERCE

Shafira Noor Ashifa^{1*}, Raden Aswin Rahadi²

¹ School of Business and Management, Bandung Institute of Technology, Indonesia

Email: shafira_noor@sbm-itb.ac.id

² School of Business and Management, Bandung Institute of Technology, Indonesia

Email: aswin.rahadi@sbm-itb.ac.id

* Corresponding Author

Article Info:

Received date: 17.06.2021

Revised date: 08.07.2021

Accepted date: 15.08.2021

Published date: 02.09.2021

To cite this document:

Ashifa, S. N., & Rahadi, R. A. (2021). A Conceptual Study on The Impact of Online Spending Behavior towards E-Commerce. *Advanced International Journal of Business, Entrepreneurship and SMEs*, 3 (9), 172-183.

DOI: 10.35631/AJBES.39013.

This work is licensed under [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)



Abstract:

As the covid-19 positive rate keeps increasing, the Indonesian government established a large-scale social restriction, or *Pembatasan Sosial Berskala Besar (PSBB)* to reduce the virus spread. At the same time e-commerce use is rapidly increasing, offering convenience to customers. With the existence of e-commerce, there is no need for physical contact. The objective of this paper is to determine the relationship between online spending and e-commerce use during a pandemic. The data used for this study was gathered from existing literature such as journals, books, and research papers that are related to the research topics. The scope & limitations are the covid-19 is unpredictable, the pandemic might give a different effect on consumption behavior in the future. The research was finally able to create a clear conceptual framework on the relationship between online spending behavior and e-commerce use based on the literature review. According to the framework, perceived behavioral cost, product variety, product comparison, application usability, safeness and healthiness, and recession in Indonesia would all have a direct impact on e-commerce use during a pandemic.

Keywords:

E-commerce, Online Spending Behavior, Covid-19, Pandemic, Social Restriction, Conceptual Study

Introduction

Current Covid-19 Condition

In the year 2020, we are facing an unpredictable situation. COVID-19 has spread to all over the world. Indonesia is also one of the countries that is exposed to the COVID-19 virus. It all started on 2nd March 2020 where Mr. President Joko Widodo stated that there are two people

who tested positive for coronavirus. On the 11th of March 2020, there was the first person who died due to COVID-19 in Indonesia (Baskara, 2020). On the same day, WHO conceded that without a doubt, coronavirus amounted to a global pandemic (WHO, 2020ad). Because of the high amount of coronavirus spread in Indonesia and all over the world, the government started to make policies and appointed 227 domestic general hospitals as Referral Hospitals (Rumah Sakit Rujukan) (Djalante et al., 2020). Also, Jokowi said on press conference that they have formed an Indonesian Task Force for COVID-19 (*Gugus Tugas Percepatan Penanganan COVID19*) lead by the head of the National Disaster Management Authority (*Badan Nasional Penanggulangan Bencana*). Jokowi stated at the press conference that “To all Indonesian people, I hope you will be calm, stay productive so that we can hinder the spread of Covid-19 and stop it. With this condition, it is time for us to work from home, learn from home, worship at home. This is the time for us to work together, help each other and unite. We want this to become a community movement so that the Covid-19 problem can be handled optimally” (Cahya, 2020)

After the implementation of social distancing which was initially only 2 weeks and was continuously extended due to positive rate keep increasing, the government began to look for new policies. Apparently, many other countries applied lockdown as preventive action in the spread of the coronavirus. In most countries, lockdown can flatten the curve. However, things are different in India. The situation of India is more critical for its huge population, poor infrastructure, and complex socio-economic structure (Hati and Majumder, 2013). Therefore, the flatten curve in India is only temporary. Reflecting on the Indian government which has economic and community similarities with Indonesia, therefore the Indonesian government chooses not to implement lockdowns because of Mr. President Joko Widodo said on press conference that “We want economic activity to exist, but all of our people must maintain a safe distance, social distancing, physical distancing is the most important.” Therefore, instead of lockdown, Indonesia launched a policy which is expected to protect the economy but still reduce the spread of COVID19, namely the Large-scale Social Restrictions that is written in Peraturan Pemerintah (PP) No. 21/2020 – *Pembatasan Sosial Berskala Besar (PSBB) Dalam Rangka Percepatan Penanganan COVID-19 and Permenkes 9 tahun 2020 tentang Pedoman Pembatasan Sosial Berskala Besar*. During the PSBB period, not all industries were dismissed. Some of the industries that are permitted to operate are food and beverage, communication and information technology, logistics, vital object industries and daily necessities. (Coordinating Minister for the Economy, Airlangga Hartanto, 2020)

Many companies have suffered losses, even went bankrupt. Resulting in massive layoffs in various sectors. Companies across the world, irrespective of size, that are dependent upon inputs from China have started experiencing contractions in production. Transport being limited and even restricted among countries has further slowed global economic activities (McKibbin and Fernando, 2020). From the graph below, using the annual contraction GDP per capita, as many as 92.9% of countries are predicted to experience a recession (World Bank, 2020). Since lockdown or PSBB for Indonesia is one of the effective ways to flatten the covid-19 curve, therefore, all economic activities are suspended and makes economic collapse. However, this is different from e-commerce. Because e-commerce is an online market that does not have physical contact between buyers and sellers. Moreover, the logistics sector is still allowed to operate during PSBB. Thus, e-commerce operations are not interrupted.

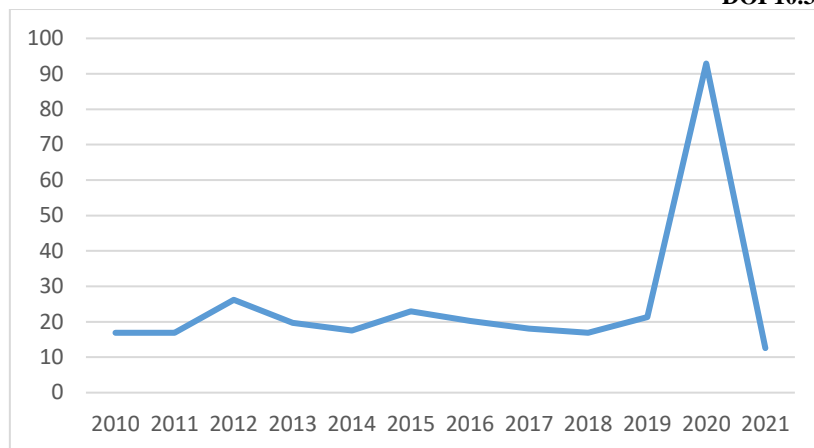


Figure 1.2 The Proportion of Economies with An Annual Contraction In Per Capita GDP

Source: (World Bank, 2020)

The Emerging of E-commerce

According to US research firm eMarketer, global e-commerce grew 28.0% in 2017 and 22.9% in 2018 and estimated that it will increase 20.7% in 2019 to \$3.535 trillion. By 2021, global e-commerce is expected to approach \$5 trillion, though growth rates will fall below the 20% threshold beginning 2020 (Lipsman, 2019). In e-commerce retailing activities, consumers want to obtain information from mobile apps to make online purchases. Therefore, satisfactory app designs can help consumers find convenient information quickly. Such process involves the ease of use of mobile apps in e-commerce retailing (Li et al., 2020). When you buy goods, all you must do is transfer your money to the seller, especially if you are already using mobile banking, all of that can be done only via your smartphone and you just have to sit back and wait for your goods to be delivered right to your doorstep via delivery service. Moreover, since the implementation of the PSBB, malls must close and the restaurant only provides takeaway and delivery, therefore there is no other option except online shopping. This makes online shopping become inelastic demand.

From MSMEs to large entrepreneurs, they have started to enter their products into Instagram, Shopee, or Tokopedia. In fact, Covid-19 has disrupted and changed the business landscape as managers have been thrust into the position of operating online supplies due to the reduction of in-person contact. However, the literature has yet to address how e-commerce platforms can benefit both firms and consumers during the pandemic. Firms must strategically build e-commerce platforms and operate in conjunction with offline methods for supplies because consumers turn to online sources to avoid infectious diseases and are increasingly engaging in sustainable consumption behaviours (Tran, 2021). Even from basic goods to secondary goods now available in e-commerce. Thus, this has been a rapid increase in the use of e-commerce.

Literature Review

The literature review is divided into four sections with the goal of providing a clear explanation of the theories and terms utilized in the study as well as evaluating the findings of prior relevant studies to back up the research. The literature review in this study was collected from many academic sources such as journals, textbooks, and research papers related to the research subject.

Online Spending Behavior

In-store shopping gives sensory information, tangibility, immediate ownership, social engagement, entertainment, movement, and trip chaining, while online shopping can provide an unlimited selection, lower prices/search costs, more information, personalisation, convenience, and speed. This author concludes that neither sort of shopping, online or in-store, consistently outnumbers the other (Mokhtarian, 2004) However, consumer online shopping has grown steadily in popularity as online and hybrid retailers offer attractive Internet-based services, such as Internet-only deals and shipping discounts (Yujorig, 2009). In the post-modern era, the lifestyles developed by youths are reflected in not only what they consume but also how they consume industrial-cultural products (Özsomer, 2012). Consumer decision-making patterns have changed as a result of the adoption of e-business. It allowed customers to quickly compare products, prices, get information, share their buying experiences with others, and make a purchase in just a few minutes (Wang, et al., 2019).

E-commerce

E-commerce is an online channel that can be reached by a person via a computer, which is used by businesspeople in carrying out their business activities and is used by consumers to obtain information using computer assistance which in the process begins with providing information services to consumers in determining choices (Kotler & Armstrong, 2018). The use of the Internet and smartphones for commercial reasons by businesses and people (B2C) is fast increasing around the world, as customers gain confidence in receiving the desired goods and in the payment process. Customers are likely to save a large amount of money and time, which may be spent on more exciting activities rather than going to stores, picking things, standing in checkout lines, and carrying heavy bags. (Magalhaes, 2021)

Covid-19

Covid-19 is a virus that started in Wuhan, China. Based on Huang et al. it begins on December 1, 2019 (2020). WHO declared that the disease is called the "2019-nCoV" virus. In a short amount of time, the virus has spread from China to other countries such as South Korea and Europe. By March 9, 2020, the total confirmed case around the world is 109,577 and WHO and other organizations changed the name virus into "COVID-19" (Allam, 2020) During March, every effort counted in the fight against the spread of Covid-19, and this was emphasized by the events of March 11. On this day, finally, the WHO conceded that without a doubt, coronavirus amounted to a global pandemic (WHO, 2020ad)

Covid-19 has not been resolved until now, the dilemma between the state of the positive covid-19 rate which continues to increase and the economic downturn as a result of covid-19 is a big problem for each country. Various regulations have been implemented by the government, start from social distancing, stay at home, to PSBB. With the existence of covid-19, our space is limited. However, we can still purchase goods online because the possibility of an infected person contaminating consumer products is low and there is also a low risk of contracting the covid-19 virus from a shipment that has been moved, shipped, and exposed to various environments and temperatures (WHO, 2020). Since it is expected that purchase online goods are safe therefore online shopping is the only way for us to buy goods.

Online Spending Behavior and E-commerce Use

Several research on online spending behavior and e-commerce use have been done throughout the years. Overall, the findings of a prior study published in several journals revealed that

online spending behavior is significantly related towards e-commerce use. The results of various previous research collected from chosen journal papers are shown below.

Table 1: Previous Study

| Author/Year | Objectives | Findings |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gerhard Wagner, Hanna Schramm-Klein, Sascha Steinmann (2020) | Enhance understanding of online shopping through electronic platforms and e-channel touchpoints from a customer viewpoint. | <ul style="list-style-type: none"> • Mobile-optimized website performs better than the shopping app with respect to perceived usefulness, but overall satisfaction with the app remains higher. • Shopping intention is quite low across all mobile e-channel touchpoints compared with shopping intention via the traditional e-channel touchpoint (standard website). • The ease of use of the mobile shopping app as marginally better than the ease of use of the traditional e-channel. |
| Vivian Frick & Ellen Matthies (2020) | Examines whether perceived behavioural efficiency gains of online shopping are associated with higher consumption levels of new, as well as sufficiency-oriented goods or services. | <ul style="list-style-type: none"> • With the exception of booking buses and trains, internet purchasing makes consuming more effective and convenient. However, how internet shopping efficiency relates to individual consumption levels is dependent on the consumption domain. It also relies on the motives of individuals: |
| Daniel Tolstoy, Emilia Rovira Nordman, Sara Melén Hånell, Nurgül Özbek (2020) | Examine, by using effectuation theory, the processes by which retail SMEs develop international e-commerce in foreign markets. | <ul style="list-style-type: none"> • Companies that make well-targeted investments in an online sales strategy will be more likely to develop appropriate knowledge and capabilities connected to international e-commerce. • Digital business competence is a key driver of implementation procedures in the international expansion of e-commerce platforms. |
| Qi Qiu, Yani Wang, Shi Qiao, Rong Liu, Ziyi Bian, Tang Yao, Thai Son Nguyen (2020) | This study aims to delineate and investigate the effects of air pollution on consumers' online purchase behavior and a key psychological mechanism underlying such effects. | <ul style="list-style-type: none"> • Air pollution has a substantial impact on internet purchasing behavior when unpleasant emotions arise, air pollution has a substantial impact on internet purchasing behavior. • The effects of air pollution on customers' unpleasant feelings and subsequent online purchasing behavior vary greatly because of the vast differences in demographics and location |

- | | | |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Xiong Li, Xiaodong Zhao, Wangtu (Ato) Xu, Wei Pu (2020)</p> | <p>The researchers propose a novel DIT-based evaluation method for the ease of use of mobile apps in e-commerce retailing from the perspective of consumer online shopping behavior patterns.</p> | <ul style="list-style-type: none"> • If the information time increased was less, the ease of use was greater, as online shoppers could quickly and easily achieve the desired state of purchasing product information by using e-commerce enterprise apps. |
| <p>Camille Saintives (2020)</p> | <p>This research thus investigates the effect of the purchase channel on consumer's guilt and the consequences of that guilt on consumer's anticipated satisfaction.</p> | <ul style="list-style-type: none"> • When the perceived value is hedonic, in-store purchases make customers feel more guilty about their purchases than internet purchases. • The purchasing channel has an impact on consumers' emotions, which in turn has an impact on their contentment, according to their perceived value. |
| <p>Semila Fernandes, V. G. Venkatesh, Rajesh Panda, Yangyan Shi (2021)</p> | <p>This study develops a 'Online Susceptibility Scale' (OSS) that focuses on the elements that influence shopper buying decisions in an online environment because they are not fully addressed in the literature and helps to understand the impact of online information on consumer purchases.</p> | <ul style="list-style-type: none"> • Customers would verify the information acquired about items or brands by authenticating it through online blogs, social networking sites, corporate websites, or market-places that would aid decision-making. • Customers corroborate the data obtained by examining the quality of the reviews, indicating that there is less ambiguity about the product's quality. • Customers are impacted by their previous experiences, which helps to build confidence in the product reviews that are available. |
| <p>David José Ahouagi Vaz de Magalhães (2021)</p> | <p>This study analyze the significance of elements that have a significant impact on logistical needs as well as the ultimate consumer choice to shop for groceries online.</p> | <ul style="list-style-type: none"> • Regular e-grocery (once a week), same-day delivery (short lead time) is not a high priority, especially the client purchases a significant quantity of items. • The order fill rate (OFR) is the most significant factor influencing e-grocery demand. |

- | | | |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Francesca De Canio, Maria Fuentes-Blasco (2021)</p> | <p>This study analyses by using utilitarian and hedonic purchasing incentives, this study investigates how consumers' haptic characteristics – instrumental and autotelic – indirectly impact their impulse buying and channel stickiness intentions.</p> | <ul style="list-style-type: none"> • Hedonic motivation positively influences impulse shopping • Haptic perception indirectly influences buying intentions • Consumers' haptic demands – particularly the autotelic dimension – are met by the mobile channel and its TUIs. |
| <p>Xuequn Wang, Xiaolin Lin, Marilyn K.Spencer (2019)</p> | <p>This study analyze from an extrinsic incentive standpoint, how social commerce elements may influence customer behaviors and facilitate social commerce advantages</p> | <ul style="list-style-type: none"> • Consumers' intentions to provide social commerce information are favorably connected to both external and identified incentive. • Consumers' intentions to contribute social commerce information are positively related to their future actions of contributing social commerce information, resulting in consumer perceptions of social commerce advantages. • The link between social commerce information providing behavior and social commerce advantages is considerably moderated by gender. |
| <p>Eugene Cheng-Xi Aw, Norazlyn Kamal Basha, Siew Imm Ng, Jo Ann Ho (2021)</p> | <p>This research supports a complete research model that considers consumer characteristics, channel-related variables, and smart shopping perception as antecedents of webrooming intention. The moderating impact of product category in determining webrooming intention is also investigated in this study.</p> | <ul style="list-style-type: none"> • Webrooming, hailed as the most comprehensive cross-channel purchasing behavior, has piqued the interest of academics and retail practitioners alike. To better exploit opportunities and maximize their company performance, merchants of all types, whether pure play online, offline, or multichannel, must understand and react to this buying behavior. |

- | | | |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Christian Brand, Tim Schwanen, Jillian Anable (2020) | To identify and describe groups of grocery shoppers using a psychographic segmentation approach that is explicitly grounded in the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM) | <ul style="list-style-type: none"> • In terms of time pressure, perceived behavioral control has a positive attitude toward online shopping, but in terms of costs and risks, it has a negative attitude toward online grocery shopping. |
| Boban Melović, Damir Šehović, Vesna Karadžić, Marina Dabić, Dragana Ćirović (2021) | To identifies the attitudes and key determinants of Millennials' online shopping behavior in Montenegro. | <ul style="list-style-type: none"> • Millennials are happy with their prior internet purchasing experiences. They see it as advantageous compared to purchasing in traditional stores, but they also see it as highly hazardous, which is why they buy primarily low-cost items online. • The internet purchasing behavior of millennials is heavily influenced by their demographic features. |
| Wenqi Zhou, Wenjing Duan (2012) | To examines the impact of both a demand side factor (online user reviews) and a supply side factor (product variety) on the long tail and superstar phenomena in the context of online software downloading. | <ul style="list-style-type: none"> • Increased product diversity has a more positive effect on tail products than on common products, contributing to the long-tail formation, regardless of whether the products are subject to positive or negative user feedback |
| Necmiye Genc-Nayebi, Alain Abran (2017) | To identify proposed solutions for mining online opinions in app store user reviews, challenges and unsolved problems in the domain, any new contributions to software requirements evolution and future research direction. | <ul style="list-style-type: none"> • Instead of having to collect isolated views on a single product themselves, consumers prefer to have comparisons of features of different products available |

- | | | |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Monika Rahulan, Olga Troynikov, Chris Watson, Marius Janta, Veit Senner (2013)</p> | <p>The study focused on understanding of consumer behaviour with respect to factors such as comfort, quality, technical attributes and methods of product promotion</p> | <ul style="list-style-type: none"> • People who are always connected to internet, their purchasing decision is more complex and time-consuming due to easy access to information needed for analyzing the offer and comparing items and services |
| <p>Manuela Aparicio, Carlos J.Costa, Rafael Moises (2021)</p> | <p>To understand the impact of gamification and reputation on the intention of repurchase in e-commerce.</p> | <ul style="list-style-type: none"> • Perceived ease of use is positively & significant towards perceived usefulness and intention to use • Trust has a favorable influence on e-commerce intention, purchase frequency, and repurchase intention. The ease of use and utility of e-commerce platforms have an impact on the intention to use them. • Gamified e-commerce websites determine usage and use positively influences repurchase intention in e-commerce context. |
| <p>Xueqin Wang, Yiik Diew Wong, Guanqiu Qi, Kum Fai Yuen (2021)</p> | <p>Examines the factors that motivate consumers' migration to the contactless channel by viewing consumers' channel choice as both health-related and shopping behaviours.</p> | <ul style="list-style-type: none"> • Customers' values of contactless e-commerce services are boosted by perceived COVID-19 risks, but the valuation process is hampered by consumers' trust concerns. Consumers believe that the contactless channel is more compatible but less reliable. |

Source: Author's Analysis

Methodology

This research starts by identifying the problems and determining research questions and objectives. Then, previous literatures are reviewed to provide definitions for the terms used in this study, to gather results that are applicable to the topic being discussed in support of this study. Literature review will be conducted to construct the research. The literature review's main objective is to offer a clear explanation of the study's theories and terminology, as well as to analyze the findings of prior relevant studies to support the research. Previous research in this study was collected by examining relevant material from journals, books, and research papers. Following a study of the available literature, further analysis will be carried out in order to get the research findings. The findings of the study will be used by the researcher to draw a conclusion and offer suggestions related to the study.

Result

Based on the literature review that has been done previously, it can be concluded that online spending behavior is significantly related with e-commerce use during pandemic. There are at least several factors that influence e-commerce use such as perceived behavioral cost, product variety, product comparison, application usability, safeness & healthiness, and recession in

Indonesia. The proposed conceptual framework is attached below to describe the relationship between online spending behavior and e-commerce use

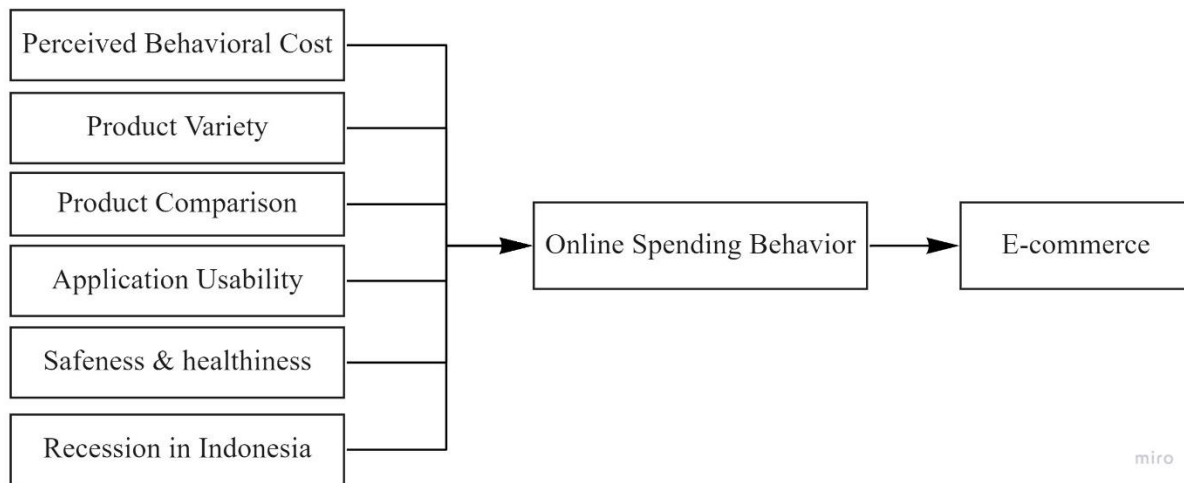


Figure 2: Conceptual Framework

Source: Author's analysis

The researcher adds safeness & healthiness and recession in Indonesia as variable that influence e-commerce use because low risk of contracting the COVID-19 virus from a shipment that has been moved, shipped, and exposed to various environments and temperatures (WHO, 2020). Based on the Central Bureau of Statistics, the Indonesian economy recorded a contraction of 5.32% in the second quarter of 2020 and in the third quarter of 3.49%. The number of unemployed roses by 2.67 million for the period of August 2020 compared to August 2019. Which the total number of unemployed workers in Indonesia is 9.77 million (BPS, 2020)

Discussion

Due to the Covid-19 which has a very fast spread between humans, social distancing is one of the preventive measures that can be taken. Many people choose to minimize shopping directly to the store, which leads to shopping online. Of course, online purchasing existed prior to the pandemic, and e-commerce became increasingly popular, especially during the pandemic.

Conclusion

Based on the data that has been collected, perceived behavioral cost, product variety, product comparison, application usability, safeness & healthiness, and recession in Indonesia has a relationship between e-commerce use during pandemic.

The next stage in this research is to put the conceptual framework to the test using statistical quantitative analysis. The study's findings will be benefit for e-commerce consumers and sellers from small businesses to well-established large corporations.

References

- Allam, Z. (2020) 'The First 50 days of COVID-19: A Detailed Chronological Timeline and Extensive Review of Literature Documenting the Pandemic', in *Surveying the Covid-19 Pandemic and its Implications*. doi: 10.1016/b978-0-12-824313-8.00001-2.
- Aparicio, M., Costa, C. J. and Moises, R. (2021) 'Gamification and reputation: key determinants of e-commerce usage and repurchase intention', *Heliyon*, 7(3). doi: 10.1016/j.heliyon. 2021.e06383.

- Aw, E. C.-X. *et al.* (2021) 'Searching online and buying offline: Understanding the role of channel-, consumer-, and product-related factors in determining webrooming intention', *Journal of Retailing and Consumer Services*, 58. doi: 10.1016/j.jretconser.2020.102328.
- Badan Pusat Statistik (2020) 'Ekonomi Indonesia Triwulan III 2020 Tumbuh 5,05 Persen (q-to-q)', *Badan Pusat Statistik*, November 5, Retrieved on May 22, 2021 from <https://www.bps.go.id/pressrelease/2020/11/05/1738/ekonomi-indonesia-triwulan-iii-2020-tumbuh-5-05-persen--q-to-q-.html>
- Baskara, B. (2020). Rangkaian Peristiwa Pertama Covid-19, *Kompas*, April 18. Retrieved on October 11, 2020 from <https://bebas.kompas.id/baca/riset/2020/04/18/rangkaian-peristiwa-pertama-covid-19/>
- Brand, C., Schwanen, T. and Anable, J. (2020) "“Online Omnivores” or “Willing but struggling”? Identifying online grocery shopping behavior segments using attitude theory', *Journal of Retailing and Consumer Services*, 57. doi: 10.1016/j.jretconser.2020.102195.
- Cahya, G. (2020). Stay home, President says, *The Jakarta Post*, March 16. Retrieved on October 11, 2020 from <https://www.thejakartapost.com/news/2020/03/16/stay-home-president-says.html>
- De Canio, F. and Fuentes-Blasco, M. (2021) 'I need to touch it to buy it! How haptic information influences consumer shopping behavior across channels', *Journal of Retailing and Consumer Services*, 61. doi: 10.1016/j.jretconser.2021.102569.
- Djalante, R. *et al.* (2020) 'Review and analysis of current responses to COVID-19 in Indonesia: Period of January to March 2020', *Progress in Disaster Science*. doi: 10.1016/j.pdisas.2020.100091.
- Fernandes, S. *et al.* (2021) 'Measurement of factors influencing online shopper buying decisions: A scale development and validation', *Journal of Retailing and Consumer Services*, 59, p. 102394. doi: 10.1016/j.jretconser.2020.102394.
- Frick, V. and Matthies, E. (2020) 'Everything is just a click away. Online shopping efficiency and consumption levels in three consumption domains', *Sustainable Production and Consumption*. doi: 10.1016/j.spc.2020.05.002.
- Genc-Nayebi, N. and Abran, A. (2017) 'A systematic literature review: Opinion mining studies from mobile app store user reviews', *Journal of Systems and Software*. doi: 10.1016/j.jss.2016.11.027.
- Hati, K. K. and Majumder, R. (2013) 'Health Infrastructure, Health Outcome and Economic Wellbeing: A District Level Study in India', *IDEAS Working Paper Series from RePEc*.
- Huang, C. *et al.* (2020) 'Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China', *The Lancet*. doi: 10.1016/S0140-6736(20)30183-5.
- Kotler, P. and Armstrong, G. (2018) *Principles of Marketing 17th Global Edition*, Pearson Education Limited.
- Li, X. *et al.* (2020) 'Measuring ease of use of mobile applications in e-commerce retailing from the perspective of consumer online shopping behaviour patterns', *Journal of Retailing and Consumer Services*. doi: 10.1016/j.jretconser.2020.102093.
- Lipsman, A. (2019). 'Ecommerce Continues Strong Gains Amid Global Economic Uncertainty'. *eMarketer*, June 27. Retrieved on October 11, 2020 from <https://www.emarketer.com/content/ecommerce-continues-strong-gains-amid-global-economic-uncertainty>
- Magalhães, D. J. A. V. de (2021) 'Analysis of critical factors affecting the final decision-making for online grocery shopping', *Research in Transportation Economics*, 87. doi: 10.1016/j.retrec.2021.101088.

- McKibbin, W. and Fernando, R. (2020) 'The economics impact of COVID-19', in *Economics in the Time of COVID-19*.
- Melović, B. et al. (2021) 'Determinants of Millennials' behavior in online shopping – Implications on consumers' satisfaction and e-business development', *Technology in Society*, 65, p. 101561. doi: 10.1016/j.techsoc.2021.101561.
- Mokhtarian, P. L. (2004) 'A conceptual analysis of the transportation impacts of B2C e-commerce', *Transportation*, 31(3). doi: 10.1023/B:PORT.0000025428.64128.d3.
- Özsomer, A. (2012) 'The interplay between global and local brands: A closer look at perceived brand globalness and local iconness', *Journal of International Marketing*. doi: 10.1509/jim.11.0105.
- Qiu, Q. et al. (2020) 'Does air pollution affect consumer online purchasing behavior? The effect of environmental psychology and evidence from China', *Journal of Cleaner Production*. doi: 10.1016/j.jclepro.2020.120795.
- Rahulan, M. et al. (2013) 'Consumer Purchase Behaviour of Sports Compression Garments – A study of Generation Y and Baby Boomer Cohorts', *Procedia Engineering*, 60. doi: 10.1016/j.proeng.2013.07.055.
- Saintives, C. (2020) 'Guilt online vs. offline: What are its consequences on consumer behavior?', *Journal of Retailing and Consumer Services*. doi: 10.1016/j.jretconser.2020.102114.
- Satuan Tugas Penanganan COVID-19, (2020) 'Peta Sebaran', *Satuan Tugas Penanganan COVID-19*, March, Retrieved on October 11 from <https://covid19.go.id/peta-sebaran-covid19>
- Tolstoy, D. et al. (2020) 'The development of international e-commerce in retail SMEs: An effectuation perspective', *Journal of World Business*. doi: 10.1016/j.jwb.2020.101165.
- Tran, L. T. T. (2021) 'Managing the effectiveness of e-commerce platforms in a pandemic', *Journal of Retailing and Consumer Services*. doi: 10.1016/j.jretconser.2020.102287.
- Wagner, G., Schramm-Klein, H. and Steinmann, S. (2020) 'Online retailing across e-channels and e-channel touchpoints: Empirical studies of consumer behavior in the multichannel e-commerce environment', *Journal of Business Research*. doi: 10.1016/j.jbusres.2018.10.048.
- Wang, X., Lin, X. and Spencer, M. K. (2019) 'Exploring the effects of extrinsic motivation on consumer behaviors in social commerce: Revealing consumers' perceptions of social commerce benefits', *International Journal of Information Management*, 45. doi: 10.1016/j.ijinfomgt.2018.11.010.
- Wang, X. et al. (2021) 'Contactless channel for shopping and delivery in the context of social distancing in response to COVID-19 pandemic', *Electronic Commerce Research and Applications*, 48. doi: 10.1016/j.elerap.2021.101075.
- WHO (2020) 'Coronavirus disease (COVID-2019) situation reports', *World Health Organisation*.
- World Bank, OECD, (2010) 'GDP growth (annual %)', *The World Bank*, Retrieved on October 11, 2020 from <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>
- Yujorig, H. (2009) 'Online end user trust and consumer behavior research', *Journal of Organizational and End User Computing*.
- Zhou, W. and Duan, W. (2012) 'Online user reviews, product variety, and the long tail: An empirical investigation on online software downloads', *Electronic Commerce Research and Applications*. doi: 10.1016/j.elerap.2011.12.002.