CHAPTER 2
LITERATURE REVIEW

2.1 Generation-X Towards E-Commerce use in Indonesia

Generation X who were born from 1960-1980 (Yoga & Triami, 2020). The Generation X born in the early years of the information and technological revolution since they were still a child, at that time technologies such as cable TV, personal computer (PC) and video game is still newly introduced and it is not common yet to be used (Putra, 2017). Unlike Generation Z, the Generation X is still considered new to the digital payment technology to complete the purchasing activity in e-commerce platform, the Generation-X is newly adapted to use digital commerce Covid-19 knowing that they are pushed to adopt to the new technologies to complete online purchasing (Santosa et al., 2021).

The Generation-X did not find e-commerce as an easy-to-use technology knowing that information technology knowledge is still considered low towards e-commerce use especially in developing countries such as Indonesia (Yulianita, 2018). To add on, Generation-X is not influenced by their surroundings towards the recommendation and attitudes to use e-commerce during pandemic (Yoga & Triami, 2021).

2.2 Government Initiative During Pandemic

The Indonesian Minister of Health decide to impose Large-Scale Social Restriction or (PSBB) on 3 April 2020, the restriction is an attempt of Indonesian government to accelerate the handling of COVID-19 disease, on top of that, the Ministry of Health also issued a regulation that focused on Worker / Labour protection and business continuity. The issued regulation asked companies to implement work from home activity for their labour from the disease (Azhar, 2020).

According to Hayu et al., 2020 the implementation of Government Regulation on E-commerce Law No. 7 of 2012, has supported the operation of e-commerce platforms in Indonesia by verifying the website for all online business units that operates in Indonesia,
government support is one of the key variables for Indonesian people to adapt to the e-commerce platform during lockdown era.

According to Purbasari & Muttaqin (2020) studied that during the Covid-19 pandemic, Indonesia government pushed many SMEs to utilise the use of e-commerce, it is because the government expect that by adapting to e-commerce it could create more opportunities for SMEs to sustain and also helps e-commerce to keep growing by having an increase in terms of sellers in the platforms, on top of that, the adaption of Indonesian SMEs to the e-commerce platform may help the users have more option while browsing on the platforms.

The government support in Singapore can be seen from the governmental campaign named “IT 2000”, the campaign was focused on creating a better technological environment, it was launched in 1991, where it leads to the goal of Singapore becoming an intelligent island (Chan & Al- Hawamdeh, 2002).

The Indonesian government also initiated a campaign called the Palapa ring network to provide better network coverage for people in greater than Java island, and the next challenge for the government to support e-commerce use in Indonesia is to provide better logistic delivery to rural islands in Indonesia (Ariansyah et al., 2021).

The input and encouragement from government is demanded in order for new technological innovation such as e-commerce can be spread and adopted by the people (Chau and Jim, 2002), on top of that depending on the level of support towards adoption of new technology, for example the government can take a leadership role in diffusing an innovation to the daily lives of their people (Tan & Teo, 2000). When the leadership role of the government can be seen as lowering the price of internet in order for the people to have cheaper access to e-commerce and the regulation for e-commerce companies to set up their operation within the country, by that individuals would develop a behaviour to adopt e-commerce use (Salem & Noor, 2020).
**H1: government support has a relationship toward Generation X’s intention to use e-commerce services during pandemic**

### 2.3 The Impact of Covid-19 Towards E-commerce

The Covid-19 pandemic is likely lead to many bankruptcy for many companies and industries around the globe, knowing that many consumer are forced to stay at home and the economies are shut down, famous retail store in U.S such as JCpenney, Hertz and Neiman Marcus are facing serious financial pressure due to the pandemic (Tucker, 2020). And for other industries such as the travel industry that are deeply affected by the disease, 90% of airline workers have been laid off. On top of that, many tourism destinations are unable to predict their profits in 2020 (Donthu & Gustafsson, 2020).

Panzone et al., 2021, conduct a research in the U.K to estimate the impact of COVID-19 towards retailers and restaurant sector, the result of the study shown that retail stores revenue decrease as much as $21 billion and for restaurant service experience lost around $25 billion, therefore according to the research that has been done it shows that the pandemic has huge negative impact towards retail and other industries globally.

The social restriction regulation by World Health Organisation (WHO) has pushed the primary benefits of e-commerce, for example the often penetration of digital and social media marketing has helped the platform to gain new users at local, national up to global level. The pandemic has motivated consumers to adopt digitalization and shift the shopping habit globally (Guthrie et al., 2021). According to Gu et al., 2021, There is an increase globally in web traffic such as supermarkets, sports equipment and beauty products, meanwhile industries such as travel and jewellery are experiencing a decrease in e-commerce platform traffic, therefore e-commerce are experiencing positive growth during covid-19 era.

In Indonesia the retail business are unable to perform due to the spread of the virus, Indonesian people would not risk their safety by going to the physical store to perform shopping
activities for their daily needs(). According to Trisnowati et al. (2020) the usage of electronic payment to complete purchasing in retail stores is increasing during the pandemic. The increase of electronic payment on retail stores is expected to have an impact on the preference to use online shopping platforms because of the common usage of electronic payment to complete purchasing.

During the pandemic, Ramdani et. al., (2020) studied about the e-commerce website performance during the pandemic, the e-commerce website that being tested is Shopee, the most popular e-commerce in ASEAN countries, and ranked 1st in Indonesia for most visited e-commerce website in 2021, the studies find that instead of having a decrease, the enthusiasm of Shopee users is increasing as much as 17.4%. Thus with the existence of Covid-19 in Indonesia it does not majorly disrupt the e-commerce industries, instead many people are relying to compete their products online and also many individuals start adapting to relying on e-commerce for their daily lives.

This step of study is considered a perceived lack of alternative, the new existing alternative could make a customer shift to the new approach rather than the traditional one (Jones et al., 2000). knowing that COVID-19 pandemic holds many people to the shopping mall and grocery store due to the curfew that being implemented, therefore the availability of e-commerce to perform shopping activity at home is a competing alternative to the traditional retail activity

**H2: Perceived lack of alternative has a relationship toward Generation X’s intention to use e-commerce services during pandemic**

### 2.4 Technology Acceptance Model (TAM)

This research paper will implement the TAM (Technology Acceptance Model) knowing that many empirical studies have proven that TAM is highly accurate and it is one of the most common theories that is being used to understand and predict the usage of new information system technology (Muhaimin, et al., 2019). According to Suh and Han 2003, the Technology
Acceptance Model has support the users acceptance towards e-commerce use through validating the hypothesis of their research, on top of that Shih 2004, conduct a research by using Technology Acceptance Model to foresee the acceptance of e-commerce and conclude that perceived usefulness and perceived ease of use are the factors that influence the users attitudes towards e-commerce, to add on, user acceptance also have positive correlation towards the use of e-commerce, therefore Technology Acceptance Model is the most commonly used model for technology adoption research (Adensina & Ayo, 2010).

Hence, knowing that one of the aims of this study is to identify the factors that are influencing Millennials and Generation X in terms of e-commerce adoption during the pandemic, the author decided to use the Technology Acceptance Model as one of the theories that are going to be used during the research to find out usage factors of e-commerce during pandemic. The Technology Acceptance Model is developed by Davis et al. (1989), the aim of the theory is to help researchers in understanding the reason people reject or accept the use of new technology for their daily lives. According to Davis, 1989 there are two logical reasons for people to adopt the new technology which are Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). By choosing the Technology Acceptance Model, the researcher can further develop the theory by adding more variables than the original theory.

According to Preece & Rodgers (2002), perceived usefulness is a combination between effectiveness, security, performance, memorability, and learning. Perceived usefulness is a possibility of the new technology is a factor that influences people to achieve their intention through technology usage.

Perceived usefulness stands for the term to which a person believes by adopting e-commerce to do shopping activity during the social restriction era would help strengthen the users health and safety performance, according to Davis et al., 2006, perceived usefulness is one of the important variable in adopting the use of new information technology, therefore as for this research the millennials and generation X will adopt e-commerce if they see that the
usefulness of using e-commerce would help them in terms of to achieve the health and safety by avoiding doing shopping activity in the mall or any physical store.

According to Davis (1989), perceived ease of use refers to the degree to which a person believes that it would be effortless to use a particular system. For example, in this case knowing that e-commerce shopping requires a process such as finding the right online store on the platform and then gathering information from the seller then finally choosing the method of payment to complete the transaction, some people may find these steps complicated and tedious when using e-commerce as an option for shopping during social restriction. Hence e-commerce platform systems are required to be easy to implement or to use. By having easy steps when purchasing goods in e-commerce it would motivate users to define the willingness of users to do shopping activity using e-commerce platforms (Hassan & Emadul, 2021). And the perceived ease of use for this study is Generation X who adopt e-commerce during pandemic beliefs that it would free them from the hassle of grocery shopping during the social restriction era.

**H3: Perceived usefulness has a relationship toward Generation X’s intention to use e-commerce services during pandemic**

**H4: Perceived ease of use has a relationship toward Generation X’s intention to use e-commerce services during pandemic**
2.5 Theory of Planned Behaviour (TPB)

This research paper also going to implement the theory of planned behaviour (TPB) which first introduced by Azjen in 1985, the theory of planned behaviour is an extended version of previous theory which are theory of reasoned action (TRA) (Azjen and Fishbein, 1980), by using theory of planned behaviour the author can define key factors toward the intention of a person when adopting to a new information technology, the factors such as Subjective Norm (SN), Attitude and perceived behaviour control (PBC). According to George, 2004 the implementation in the study of purchasing through internet has helped to identified the relationship among many factors towards online purchase, on top of that Pavlou, 2002 conduct a research to identified what are the driver of a person to adopt e-commerce by implementing the theory of planned behaviour, Pavlou, 2002 are able to predict the users intention in doing online transaction by highlighting the use of perceived behavioural control (PBC) and attitude to identify the intention of online purchase.

One of the purposes of this paper is to find out the behaviour factors of Generation X when adopting e-commerce during the pandemic, in order to identify the behavioural factors this paper use the theory of planned behaviour, there are two variable that are going to be used which are the perceived behaviour control (PBC) and subjective norm (SN), the perceived behaviour control will help define the users motivation is influenced and how the users successfully perform the activity, and for the subjective norm (SN) is a thinking where a society or even an important people will give a validity to support a specific behaviour (Azjen, 1991).

One of the variables from theory of planned behaviour which are a subjective norm (SN) is a degree of a perception where the society or influential people will influence any specific activity (Lim & Dubinsky, 2005). For this research, the subjective norm will correlate with the society that gave pressure for people to adopt e-commerce. According to George, 2004 the subjective norms is one of the important factors towards behavioural intention. When one person's society tells him or her about adopting e-commerce platforms during social restriction
then there is a high probability that the person will do it as well, the influencing person can be a friend, work colleagues, or even family members.

The perceived behavioural control is a degree where a person is being judged based on the perceived control and self-efficacy ability when completing a certain behaviour (Lim & Dubinsky, 2005). In this research context the perceived behavioural control is a purchasing activity through e-commerce platform done by an individual with the confident of using the platform by having a purchasing behaviour control when doing the activity, Generation X is expected to adopt e-commerce when they gather the confidence and control towards doing shopping activities in the e-commerce platform

(Studies about which more influential between subjective norm and planned behaviour control)

**H5: Planned behaviour control has a relationship toward Generation X’s intention to use e-commerce services during pandemic**

**H6: Subjective norm has a relationship toward Generation X’s intention to use e-commerce services during pandemic**

### 2.6 Previous Study E-commerce Adoption

The literature review in this chapter is focused on the factors that are going to be considered the influence of Generation X towards e-commerce adoption during the pandemic in Indonesia. Before COVID-19 spread in Indonesia, the e-commerce adoption among gen-X in Indonesia had a strong relationship between perceived ease of use, attitude and perceived usefulness (Lestari, 2019). To add on in 2011 Rofiq and Scott studied about the buying intention towards e-commerce in Indonesia by implementing Theory of planned Behaviour, the studied found that factors such as subjective norm and perceived behaviour control have a positive effect towards e-commerce adoption in Indonesia therefore, this study is also going to use Theory of Planned Behaviour as one of the used theory in order to add more dynamic on the finding of this study.
Ayob (2021) studied about the demographic of e-commerce adoption in ASEAN, according to the study the demographic of e-commerce adoption during pandemic mostly is came from Gen-X, with the specific demographic of female that have higher education level, therefore this research going to focus on gen-x to as the demographic for the research, in order to have a clear perspective from generation-X in terms of adopting e-commerce during pandemic.

Previously Salem & Noor, 2020 conduct a research on the factors that affect the adoption from brick-and-mortar stores to the usage of e-commerce adoption in Saudi Arabia, the research stated that only government support and perceived behavioural control that have positive effect towards e-commerce adoption during pandemic in Saudi Arabia, Hence, this research is going to add government support as one of the variables that going to be tested knowing that the government involve huge factors in imposing social restriction that leads many people stay at home.

The e-commerce users during COVID-19 pandemic tend to trust word-of-mouth promotional compared to television or social media campaigns, therefore this factors would be tested using Subjective Norm (SN) whereas the a person or society would have a huge influence in one person decision making, the subjective norm can be found in the Theory of Planned Behaviour as one of the variable from the theory (Jawaid & Karim, 2021).

According to the research from Ryadi et al., 2021, they studied on the factors that influence e-commerce users to adopt grocery shopping through the platforms, and the result from the study stated that users in Indonesia have high desire to use e-commerce service to do grocery shopping, while the result of the study is the adoption of grocery shopping in Indonesia is still low due to lack of ease of use towards the e-commerce platform ,

The future suggestion from the Ryadi et al., 2021 research is the future study could use theories other than technology acceptance model to understand the e-commerce adoption in Indonesia on top of that Rofiq and Scott (2011) suggest that the demographic of sample should
be more specific when implementing Theory of Planned Behaviour, therefore this study is going to combine technology acceptance model (TAM) and the theory of planned behaviour (TPB) to understand the influencing factors towards e-commerce adoption during pandemic in Indonesia with the specific sample such as generation X to understand the behaviour towards e-commerce use in Indonesia.

2.7 Theoretical Framework

Based on the written literature for each factor, below is the figure that shows the relationship between the dependent variables (Factors influencing Generation X to adopt e-commerce during pandemic) and the independent variables such as (perceived usefulness, perceived ease of use, government support and perceived lack of alternative).

Figure 2.1 Proposed Theoretical Framework