CHAPTER II

LITERATURE REVIEW, FRAMEWORK, AND HYPOTHESIS

2.1 Literature Review

2.1.1 E-Marketing

Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large (Solomon, Marshall, & Stuart, 2015). Marketing focuses on identifying and satisfying consumer needs to ensure the organization's long-term profitability. Zhao (2020) defines e-marketing is a marketing activity in a computerized, networked environment, to facilitate exchanges and satisfy customer demands. E-marketing provides more convenience and competitive prices, and it reduce company's operational costs. E-customer's most serious concern is security and privacy, followed by price, delivery cost, return policy, customer service, site design, navigation, one-click shopping, and personalization.

The American Marketing Association defines consumer behavior as "the dynamic interaction of affect and cognition, behavior, and the environment by which human beings conduct the exchange as pects of their lives.". In other words, consumer behavior involves the thoughts and feelings people experience and the actions they perform in consumption processes (Peter & Olson, 2010). TP & S (2016) revealed that the factors affecting return intention to a website are the enjoyment of the shopping experience and the usefulness of the web.

2.1.2 Theory of Planned Behavior and Technology Acceptance Model

Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM) were developed based on the Theory of Reasoned Action (TRA) (Ajzen, 1991; Davis, 1986). TPB can be used to measure various human behaviors in more general terms, and TAM examines usage and adoption behaviors in specialized contexts such as information systems and new media technologies (Chang, et al., 2015). TPB postulates three conceptually independent determinants of intention: (1) Attitude, refers to a person's favorable or unfavorable evaluation or appraisal of the behavior in question; (2) Subjective Norm, refers to the perceived social pressure to perform or not to perform the behavior; (3) Perceived Behavioral Control, refers to the perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles. While TAM has three factors, Perceived Usefulness, Perceived Ease of Use (that will be explained in the next part), and also Subjective Norm. Because the two TPB factors are in TAM, so that the weaknesses of TAM which can't control the behavior of users can be overcome, so that TPB and TAM can be used together to analyze the factors that influence the usage intention of information system technology, in this case is m-health.

2.1.3 Consumer's Usage Intention

Cited in Hur (2017), According to the theory of reasoned action, a person's behavior is influenced by his or her intention to take an action. This intention is determined by the person's attitudes and subjective feelings toward the behavior. Cited in Bagozzi (2010) an intention has been defined as a person's commitment,

plan, or decision to carry out an action or achieve a goal. Psychologist Ajzen (1991, p. 181) gives definition which seems too broad in that it encompasses (i) **motivation**, which is better construed as an antecedent of intention and (ii) **planning**, which constitutes a mental activity or process that often occurs after one forms an intention to pursue a goal or perform an action. Can be seen in Lewin's (1951, pp. 95–96) clearly differentiates intention from motivation and action and situates it between these concepts: motivation→intention→action.

Cited in Nugroho (2009), factors that influence consumer intention has three sections, can be briefly described as follows:

1) Consumer internal factors (needs, motivations and perceptions).

2) Individual characteristics (lifestyles, personality and demography).

3) External or environmental factors also affect consumer behavior.

In this study, the object of is young adults. There are several factors that make young adults intend to use a technology. Utomo & Noormega (2020) have divided young adults or millennials into 7 types:

1) The Adventurer

This type personality are outgoing, energetic, and love to explore new things and experiences. They have countless ideas flying in their head at any given time and they prioritize creative freedom in their career path. Inspiring, convincing and colorful, they are natural group leaders, pulling everyone along the path less traveled, bringing life and excitement everywhere they go the embodiment of 'babat alas'. Adventurers are very

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vocal about their opinions and ideas, including about their political and religious views. They love to spread their positive energy towards their family and decide to get married only when they're ready. They consume their news mainly from television, social media, and digital media. As consumers, they buy products that project social image (social), increase access (functional), and reduce hassle (functional).

2) The Visionary

Their personality are inspiring, charismatic, expressive, and driven. Visionaries tend to be over-achieving employees with unquenchable thirst for knowledge and make great entrepreneurs. They leap before they look, fixing their mistakes as they go, rather than sitting idle, preparing contingencies and plan B - the embodiment of 'tak ada rotan, akar pun jadi'. They are the initiators in their family. Visionaries are tolerant in their religious and political views. They consume content from newspapers, digital media, television and social media. Visionaries are very functional consumers where they purchase products or services that provide information (functional), reduce hassle (functional), or increase access (functional).

3) The Artists

They are full of ideas, have unique points of views, and strong aesthetic orientation. These personalities take joy in reinterpreting circumstances, reinventing and experimenting with both themselves and new perspectives. This creates a sense of spontaneity, making Artists seem

unpredictable, even to their close friends and families. They use aesthetics, gut feel, and design to make choices and actions to push the limits of social convention - the embodiment of 'air tenang menghanyutkan'. This makes school and other highly organized environments a challenge for Artists. It's not that they are not smart, but the regimented, lecturing approach of formal education is just so far from the hands-on learning that Artists enjoy. Most of Artists excel in individualistic and ambiguous working environments. Artists are open when it comes to expressing their views on religion and politics. They are heavy users of social media, digital media, and sometimes television. As consumers, they buy products with strong authentic stories and choose form over function.

4) The Leader

They are charismatic, goal-oriented, and have strong leadership skills. Leaders embrace the values of honesty, dedication and dignity where they happily lead the way on difficult paths - the embodiment of 'berakit rakit ke hulu berenang renang ke tepian, bersakit sakit dahulu, bersenang senang kemudian'. They are able to see the bigger picture, while maintaining attention to details, which makes them suitable to be in managerial positions or becoming entrepreneurs. Leaders keep themselves updated with the daily news and current issues through television, digital media, newspaper, and social media. They tend to have strong opinions on politics and religion, but acted very carefully in

addressing their views in public. Leaders are caring and discipline parents to their children. As consumers, Leaders buy products that promote wellness (emotional), provide information (functional), and offer entertainment (emotional).

5) The Socializer

Their personality are fun, outgoing, and conversation-starters. No other type is as generous with their time and energy as Socializers when it comes to encouraging others, and no other personality type does it with such irresistible style. They take social activities, such as nongkrong, arisan, maen bareng, and social gathering, very seriously and put them on a high priority, the embodiment of 'mangan ora mangan sing penting ngumpul'. Socializers have great project management skills and work best in a company with clear hierarchies and boundaries. They are on top of the news because they consider it as useful conversation-starters. Socializers often hide their true opinions on religion and politics, and tend to agree with other people's view in order to fit in the groupthink. Socializers gravitate toward products that offer reward (emotional), create nostalgia (emotional), or project social image (social).

6) The Conservative

They are reliable, simple, and low-key - the embodiment of 'alon alon asal kelakon'. Conservatives' personalities are no-nonsense, and when they've made a decision, they will relay the facts necessary to achieve their goal, expecting others to grasp the situation immediately and take

action. They are vocal on political and religious views and they are family oriented. In work settings, they best perform as controllers – human resource, finance, or operations. They consume content from television and social media to keep themselves updated. As consumers, Conservatives put emphasis on products with authenticity and affordability compared to brand image.

7) The Collaborator

They are highly tolerant, full of ideas, and love to create a great teamwork within the society. Collaborators will act with creativity, imagination, conviction, and sensitivity to empower and to create balance - the embodiment of 'tut wuri handayani'. Though soft-spoken, they have very strong opinions and will fight tirelessly for an idea they believe in. They are always up-to-date with the current news and trends, but rarely share their views about politics and religion publicly. Collaborators consume content through social media, digital media, and radio. As consumers, Collaborators buy products to project social image (social), create belonging or affiliation (social), and increase access (functional).

2.1.4 Perceived Ease of Use

The perceived ease of use (PEOU), according to Davis (1989), is defined as the degree to which a patient believes in the use of a particular technology would require no effort (Yee , Seong, & Chin, 2019). Additionally, although an m-health application was very useful for patients, if it was difficult to use, the patients will have negative perception towards the app and reduce their intention to use it

(Mangkunegara, Azzahro, & Handayani, 2018). Cited in Veríssimo (2017), Alkateeb & Doucette (2009) stated that conversely, the more difficult it is to get information, the longer the adoption period will be. Kim and Chang (2007) and Gagnon, Ngangue, Payne-Gagnon, & Desmartis (2016) also defend the idea that perceived ease of use favors the adoption of technology in healthcare. In the same line of thought, a recent study of antecedents of mobile app usage among smartphone users (Kim, Yoon, & Han, 2016) shows that perceived ease of use positively influences app usage. According Susanto & Aljozab (2015), PEOU can be measured by three dimensions. The author added one more dimension as follow:

1) Accessible, refers to the place and time flexibility in using the apps.

2) Easy Navigation, refers to the ease of using the apps with less effort.

3) Overall ease of use.

2.1.5 Perceived Usefulness

Cited in Yee , Seong, & Chin (2019) the perceived usefulness (PU), according to Davis (1989) defined as the degree which a person thinks that technology could improve their performance at work. It means whether or not someone perceives that technology to be useful for what they want to do. Olaleye, Salo, Sanusi, & Okunoye (2018) also defined Perceived usefulness as the extent to which target customers believe that using a specific technology will generate significant value for them. Cited in Arash (2020), If users understand that using an app will be beneficial and satisfies their needs, they assume a positive attitude towards doing so (Lee, 2018; Morosan and De- Franco, 2016). Yee , Seong, & Chin (2019) further explained PU is usually measured using four elements:

1) Effectiveness, the degree to which something is successful in producing a desired result.

2) Productivity, a measure of the efficiency of a system in converting inputs into useful outputs.

3) Performance, refers to an action or process of carrying out or accomplishing an action, task, or function.

4) Overall usefulness of new technology.

2.1.6 Perceived Privacy Risk

Cited in Chiu, Bool, & Chiu (2017) In the banking context, privacy refers to the ability of the bank to authenticate and protect consumers' personal information from unauthorized access which is free from invasion, interception and theft (Cheung and Lee, 2001; Mukherjee and Nath, 2003; Lee, 2009; Lee and Turban, 2001; Littler and Melanthiou, 2006; McKnight et al., 2002). Patient information will be collected and recorded in a central database that health professionals will be able to access on a regular basis (Yee , Seong, & Chin, 2019). Since healthcare wearable devices continuously collect user's personal health information in real time, and individual's personal health information is more sensitive than other types of information such as demographic and general transaction information (Bansal, Zahedi, & Gefen, 2010), healthcare wearable devices should not only be treated as an application of emerging technology in healthcare, but also should be regarded as a high privacy concern product (Gao, Li, & Luo, 2015). Information privacy concern is proved to be more important due to the higher sensitivity of health information. Li, Wu, Gao, & Shi (2016) and Kumar

& Bajaj (2016) defines the adoption of healthcare wearable devices, individuals' perceived privacy risk is determined by two dimensions as follow:

1) Personal Data Information (name, date of birth, age, home address, e-mail address, telephone number, account number, etc.).

2) Health Information Sensitivity, refers to an individual's information attribute that informs the degree of perceived discomfort when disclosing health information to an external agent (a healthcare wearable devices in our case).

2.1.7 Government's Policy and Support

Cited in Chin, Hamid, & Dawei (2015), government policy is an intentional course of action followed by a government institution or official for resolving an issue of public concern (Clarke, Lawrence, Carr, & Cayer, 2009). They further explained that it is basically a course of government action or inaction taken in response to social problems. Kotler & Harris (2013) stated that political and legal environment possess a profound impact on marketing environment, especially telecommunication, and in this case is m-health. Cited in Haderi (2014), there are many factors that influence acceptance of computer technology which are beyond the organization. Some of these factors are external to the organization such as sector government (public vs. private), volatility (uncertainty), growth rates, and concentration of markets, all of which have been shown to affect acceptance of technology. Because government support plays an important role in the acceptance of IT, as shown above, this study examines the effect of this variable on the young adult usage intention on Halodoc application. According Rausser & Goodhue

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(2002), and Amankwah-Amoah (2015), government's policy and support can be measured by three dimensions as follow:

1) Incidence, refers to a number of simplifying assumptions (include static supply and demand, perfect and costless information and policy enforcement, and perfect competition).

2) Mechanism Design, which intended by the government to correct market failures.

3) Protect Domestic Firms, refers to the support given by the government to the local firms to improve the competitiveness.

2.2 Previous Research

Table 2.1
Previous Research

No	Title	Authors	Finding
1	What Motivates Chinese Young Adults to Use mHealth?	To, et al., 2019	Communication effectiveness, health consciousness, and perceived ease of use significantly influenced Chinese young adults' intention to use mHealth directly and indirectly through perceived usefulness.
2	Factors influencing behaviour intentions to telehealth by Chinese elderly: An extended TAM model	Zhou, Zhao, Kong, Campy, & Que, 2019	Medical services, perceived ease of use, and information quality influence the acceptance of apps, and acceptance influence Chinese elderly's intention to use mHealth.
3	Conceptualizing Mobile Health Application Use Intention and Adoption Among Iraqian Older	Saare & Yue, 2019	Perceived usefulness, perceived ease of use, subjective norms, and

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	Adults: From the Perspective of Expanded TAM		facilitation influence intention to use mHealth.
4	Would You Like to Shop Via Mobile App Technology? The Technology Acceptance Model, Social Factors and Purchase Intention	Arash, Ali, Sara, & Nicolas, 2020	This study demonstrates that perceived ease of use has greater effect on attitude, and attitude gives positive effect towards mobile app
5	Online Retailing Across e-channels & e-channel Touchpoints: Empirical Studies of Consumer Behavior in the Multichannel e-commerce Environment	Wagner, Schramm-Klein, & Steinmann, 2018	The effect of personality occurred through other technology-acceptance determinants, such as perceived usefulness, ease of use and social norms.
6	Patient's Intention to Use Mobile Health App	Yee, Seong, & Chin, 2019	Perceived usefulness, perceived ease of use, and subjective norms significantly influence patients' intention to use mHealth.
7	Analysis of Factors Affecting User's Intention in Using Mobile Health Application: A Case Study of Halodoc	Mangkunegara, Azzahro, & Handayani, 2018	Perceived usefulness and self-health awareness influence attitude. Perceived usefulness, perceived behavioral control, trust, system quality, and attitude influence behavioral intention to use Halodoc application.
8	Usage Intensity of Mobile Medical Apps: A Tale of Two Methods	Veríssimo, 2017	Perceived ease of use, perceived usefulness, peer influence, seniority, age, and gender positively affect MMA usage intensity
9	Retailing Mobile App Usefulness: Customer Perception of Performance, Trust and Tension Free	Olaleye, Salo, Sanusi, & Okunoye, 2018	Perceived usefulness positively affect intention to use mobile application.
10	What Drives Mobile Commerce: An Empirical Evaluation of the Revised Technology Acceptance Model	(Wu & Wang, 2005)	This research findings indicate that all variables include perceived usefulness significantly affected users' behavioral intention

11	An Empirical Study of Wearable Technology Acceptance in Healthcare	Gao, Li, & Luo, 2015	Hedonic, functional, social influence, vulnerable, and privacy influence intention to accept wearable technology.
12	Challenges and Factors Influencing Initial Trust and Behavioral Intention to Use Mobile Banking Services in the Philippines	Chiu, Bool, & Chiu, 2017	Trust, infrastructure, costs, privacy, and security influence intention to use mBanking.
13	Consumer Perceptions of Risk and Uncertainty and the Implications for Behaviour Towards Innovative Retail Services: The Case of Internet Banking	Littler & Melanthiou, 2006	Perceived risk is predicated on the view that when faced with novel experiences it is possible for the consumer to outline the likely consequences and at least implicitly attribute some measure of chance to them.
14	The Impact of Personal Dispositions on Information Sensitivity, Privacy Concern and Trust in Disclosing Health Information Online	Bansal, Zahedi, & Gefen, 2010	Perceived health information sensitivity influences privacy concern, which leads to increased sensitivity in disclosing personal health information online.
15	Internet Banking Market Performance: Turkey Versus the UK	Sayar & Wolfe, 2007	Download & transaction speed, site user-friendliness and privacy influence users' bank selection in Turkish.
16	The Influence of Government Support in the Adoption of Internet Banking	Sheshadri & Rani, 2014	There is significant correlation among government support and adoption on IB services.
17	The Influences of Government Support in Accepting the Information Technology in Public Organization Culture	Haderi, 2014	Government support has a positive effect on intention to accepting Information Technology in public organization culture in Yemen.
18	Effects of Internal Support and Consultant Quality on the Consulting Process and ERP System Quality	Wang & Chen, 2006	Computer training, government support, and organization support factors could prevent the end-user from using a particular system

19	The Moderation Effect of Governmental Policies on Hybrid Car Purchase Intention	Chin, Hamid, & Dawei, 2015	Government policy effectively influence the hybrid car buying intention.
20	The Impact of Government Intervention on Technology Adoption and Diffusion: The Example of Wireless Location Technology	Seeman, O'Hara, Holloway, & Forst, 2007	Governmental regulation and other external factors has positive effect on the adoption of emerging technologies.

2.3 Hypothesis Development

The development of hypothesis based on the theories and the previous research that has been described previously are explained in this chapter. Cited from To, et al. (2019), perceived ease of use significantly influenced people's intention to use mHealth by maintaining simplicity and the ease of use of the apps. If the technology is easy to use, then the barriers conquered, but f it's not easy to use and the interface is complicated, no one has a positive attitudes towards it (Wikipedia, 2020). The decision of doctors to accept telehealth also shows that the ease of use is one of the key factors. An easy-to-use telehealth system will be more likely to be accepted by patients (Zhou, Zhao, Kong, Campy, & Que, 2019). Conversely, a patient will increase the desire or likelihood of adopting a new system when he feels that the system is comfortable, easy to use, and likely to use an app perceived to be easier to use than another (Yee , Seong, & Chin, 2019). Therefore, the following assumption is made:

H_1: Perceived Ease of Use has positive effect on Halodoc Usage Intention.

Cited in Veríssimo (2017), in a study more specifically related to health information on the Internet, Kim and Chang (2007) defend the idea that perceived

usefulness is a key factor in accepting information technology. In the same line of thought, Hur, Lee, & Choo (2017) conclude that perceived usefulness has a direct impact on app usage intention. Also Gagnon, Ngangue, Payne-Gagnon, & Desmartis (2016) show that perceived usefulness is the most recurrent adoption factor for the adoption of mobile health. Cited from Mangkunegara, Azzahro, & Handayani (2018), states that perceived uselfulness attach great importance to the use of m-health, especially to increase the activities that they carry out on a daily basis. According to Yee , Seong, & Chin (2019), in short, a patient will increase his chances of adopting mobile health apps as he has been able to take advantage of the benefits of these apps. For example, the app will be seen as useful if it allows users to improve their health management effectiveness or help users get drug updates and first-hand information. When patients perceive apps as useful for their health care outcomes, positive attitudes towards the app are created and result in a positive behavioral intention to use. Therefore, the following hyphotesis is made:

H_2: Perceived Usefulness has positive effect on Halodoc Usage Intention.

Cited from Gao, Li, & Luo (2015), states that consumers are more affected by other's behavior and privacy issues when they decide to adopt a proper device to manage their health. Cited from Chiu, Bool, & Chiu (2017), if bank consumers perceive that mobile banking is secured and has privacy protection, then it may lead to positive perception in determining attitudes toward the use of mobile services. Citet in Chiu, Bool, & Chiu (2017), Sayar and Wolfe (2007, p. 125) stated on their research of Turkish internet banking users, speed seekers view download speed, transaction speed, user-friendliness of the site and privacy influence users' bank

selection. Privacy and security are considered obstacles to the adoption of mobile commerce (Gao and Bai, 2014). Therefore, the following hyphotesis is made:

H$_3$: Perceived Privacy Risk has positive effect on Halodoc Usage Intention.

According to the study conducted Haderi (2014), there are many factors that influence acceptance of computer technology which are beyond the organization, and one of them is government (public vs. private). Haderi further explained that the role of the government in developing countries varies, and IT is one of the areas that are receiving increased government resources through improvised information programs, increased training opportunities and technology support grants and awards. Wang and Chen (2006) examined the quality recognition of medical information systems in Tzu-chi hospital in Taiwan and explored the factors that discourage physicians from using medical information system. The study found that computer training, government support, and organization support factors could prevent the end-user from using a particular system. Therefore, the following hyphotesis is made:

H$_4$: Government's Policy & Support has positive effect on Halodoc Usage Intention.

Based on the hypothesis found from previous research conducted, researcher made hypothesis for current research as follows:

H$_1$: Perceived Ease of Use has positive effect on Halodoc Usage Intention.

H$_2$: Perceived Usefulness has positive effect on Halodoc Usage Intention.

H$_3$: Perceived Privacy Risk has positive effect on Halodoc Usage Intention.

H_4: Government's Policy & Support has positive effect on Halodoc Usage Intention.

2.4 Conceptual Framework

Based on the study of theory and the results of previous research, the researcher can describe the logical framework logically. In determining the subject matter, the author took the initiative to create a framework of thoughts based on the variables studied, namely:
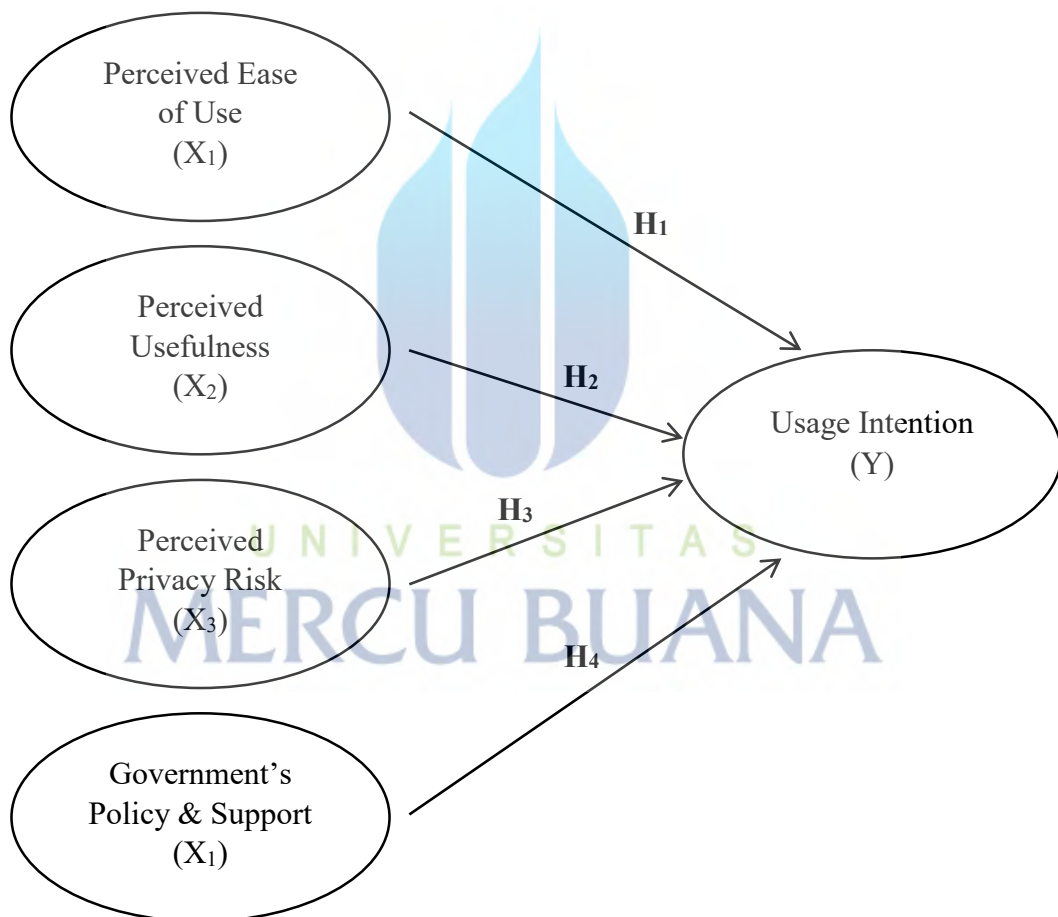

Figure 2.1

Research Framework