THE ANTECEDENTS AND CONSEQUENCES OF HEALTH INFORMATION SEEKING AND BEHAVIORAL INTENTION

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ABSTRACT

The information and communication technologies, health information seeking, and citizens' behavioral intention has been established as a promising area of attention. However, recent growth in digital health information surveillance has dynamics of information-seeking behavior entirely. The paper, therefore, aims to develop a digital literacy conceptual framework to understand the dynamics of Online Health Information Seeking (hereafter OHIS) and Behavioral Intention. Drawing an analogy from past health behavior and information-seeking theories, this conceptual framework provides guidelines for future quantitative studies. The study employed the literature review method and extracted the past empirical and review studies from the most reliable databases using the search words. In total, 10 years dataset of the published work has been used as a sample published from 2010 to 2020. The study analyzed the published work and advanced the body of knowledge by proposing the understudied tradeoff between information quality, perceived value, perceived personal health value, and trust in OHIS intention. Thereby, the theoretical foundation offered in this study supports the further investigations taping antecedents and consequences of OHIS intention in Asia. The research also identified the Hospital's corporate image as a moderating variable that possibly intensifies the influence of the antecedents as mentioned above on OHIS intention. The empirical validation of this model could assist policymakers and Malaysian and Indonesian citizens to understand the health information seeking and behavioral patterns of people in a digital age.

Keywords: Healthcare information; Behavioral intention hospital's corporate image; Perceived value; Information quality.

INTRODUCTION

The Importance of Healthcare Information

Recently the Internet justifiably is the most accepted source of online health information seeking because of its accessibility, interactive quality, and immediacy (Arcury et al., 2020; Zhang et al., 2020). According to the National Cancer Institute of the US (2018), over 50% of adults in the US used the Internet for health information seeking. Additionally, within Germany, a report has shown over 71% of Internet users look for health information (Directorate-General for Communication, 2014).

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A recent survey of Asian users of smartphones demonstrated that the proportion of citizens who regularly seek health information is higher compare to other continents and the findings showed 85% in Indonesia and 79% in China. Therefore, healthcare information is an important catalyst to regulate citizens' health (Zhang, et al., 2019; Arcury et al., 2020). Furthermore, due to the significance of OHIS, many countries are encouraging people to constantly use information technologies to monitor healthcare, especially during the COVID-19 pandemic (Arcury et al., 2020). Therefore, improving entrepreneurial skills and acquisition in the healthcare industry may augment the economic system in Asian countries (Ekpe, 2015; 2016).

The growth and penetration of sophisticated digital technologies have increased the amalgamation of the various healthcare provisions. Indeed, a conceptual framework for digital health literacy is inevitable to improve the healthcare industry in Asia (Putri et al., 2020). Social media has become a vital tool to assist citizens' health care (Arcury et al., 2020; Zhang et al., 2020). Literature reported that more than 50 Percent of phone owners search for health information using mobile technologies (Chrysoula et. al., 2018; Zhang et al., 2020). Furthermore, adopting Asian values such as cultural diversity (Abdullah, 2007; 2010; Zhang et al., 2017; Ziyae et al., 2021) may encourage the diffusion of healthcare information systems in the healthcare industry in Asia.

Most recently, online accessibility of trustworthy and reliable health-related information has the potential to remarkably influence behavioral health outcomes (Zhang et al., 2020). Thus, scholars and practitioners are attempting to grasp the phenomenon of health information seeking. The main question that has remained the focus of their attention is comprehending how and why individuals seek health information. Similarly, what are the credible sources of individual's health information whereby they acquired knowledge, favored kinds of health-related information, and finally, how they process (Graham, 2020; Lalazaryan, & Zare-Farashbandi, 2014). Due to the advent of the internet of things and digital health services offered by many healthcare facilities, these questions are timely to be explored. The growing digital health services have imperative public health implications, and health information seeking is a pertinent issue. Given this above prevalence, plentiful research has suggested that people use the internet as a source of information seeking. On the other hand, some study found that inclusive online search assist and derive their behavioral health outcomes such as contacting some healthcare service providers (Aceto et al., 2020), knowledgeable healthcare visiting choices (Yigzaw et al., 2020), and treatment's decisions (Daei et al., 2020; Linn et al., 2019). While extensive literature has investigated numerous demographic aspects in determining health information seeking (Raza et al., 2020; Saparaliyev et al., 2019).

Despite that past studies on healthcare information has made substantial advancement in recognizing the precursors of people's information-seeking behavior, a few research has identified exogenous factors such as healthcare facility image. The past research focused on identifying structural issues such as sources of active health information seeking (Linn et al., 2019). To this end, these past studies paid far less attention to a critical unaddressed question: how perceived quality or services provider image regulates this phenomenon of information-seeking. Furthermore, the past theoretical models lack the context of the digital interventions and thus do not corresponds to the current scenario. Therefore, the prior studies overlooked the systematic review of how individuals' responses interplay with a single study's organizational, branding, and quality factors. Likewise, the existing models draw upon the internet context lack the people's behavioral or communicative actions. Thus, in the context of health information seeking, the current study proposes to use a more comprehensive approach while understanding

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the individual's healthcare knowledge-seeking behaviors. Although the previous literature has indicated diverse findings concerning the pertinent question about predictors of health information seeking (Daei et al., 2020; Kundu, 2017). However, our results found that the prior studies have focused on particular elements including credibility, (Xie et al., 2020) and resource quality (Aceto et al., 2020). To this end, no comprehensive model to examine the realistic factors was developed. For example, the primary research focus was on the motivational factors related to the individual actions, but how corporate image and the branding interplay to determine the health information seeking was missing.

Similarly, cultural drivers have not been considered in prior literature (Abdullah, 2010). Therefore, building from the past literature, conceptual research proposed to integrate the applicable cultural, psychological integrating national assessments, and branding variables highlighted in the literature. The study integrates these factors and intends to offer the conceptual model sought to considerably tap the influential predictors of OHIS. In the next section of literature gives an overview of the existing theoretical models frequently used to measure the behavioral outcomes regarding individuals' health information seeking. Furthermore, the systematic review method has been applied to identify the potential predictors highlighted in the literature. Then finally, the study advances the body of knowledge by proposing a comprehensive model of information-seeking behavior developed for further empirical validation. The proposed model would pave the way for the future studies that have been discussed in the conclusions.

LITERATURE REVIEW

Attitudes and Personal Involvement in Healthcare

Globally many citizens have demonstrated the attitude and personal involvement in healthcare, especially health information seeking (Yuehong et al., 2016; Arcury et al., 2020; Hyzam et al., 2020). Literature has identified plentiful factors showing the implications of understanding the attitude and citizen's involvement in healthcare (Hyzam et al., 2020; Lalazaryan & Zare-Farashbandi, 2014). For example, one of the factors is the citizens' psychological disease adaptation that refers to the practical and valuable citizens' involvement and adaption to health activities and adaptation to various diseases (Lalazaryan & Zare-Farashbandi, 2014). Similarly, the attitude of the citizens towards information seeking is an imperative mechanism. It deals with transformation, disabilities, catastrophe, uncertainties, and tight control of health situations by meaningful knowledge of citizens' information-seeking behavior (Lalazaryan, & Zare-Farashbandi, 2014). The greater involvement of the citizens regarding disease information, the easier the adaptation and participation in the system.

Another vital factor in increasing citizens' involvement is the self-management of health information (Hyzam et al., 2020). The citizens' awareness of various diseases is contingent on their growing self-management health information (Lalazaryan & Zare-Farashbandi, 2014). Moreover, self-management necessitates the citizens to be more conscious and knowledgeable concerning its disease (Lalazaryan & Zare-Farashbandi, 2014).

Plentiful research also affirmed that removing pertinent information-seeking barriers enhances the citizens' instant access to adequate information that can help regulate the spread of the diseases (Lalazaryan & Zare-Farashbandi, 2014). Given that, recognition and elimination of barriers can help in surging citizens' information-seeking behavior. Besides, accessibility to the

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appropriate information associated with diseases can also help endorse health education. Thus, eliminating the barriers involved in information seeking can be a viable strategy for healthcare literacy (Lalazaryan & Zare-Farashbandi, 2014).

The Internet of Things in the Healthcare Industry

Healthcare 4.0 includes the implementation of three major paradigms: (1) Big Data, (2) the Internet of Things (hereafter IoT) (Aceto et al., 2020), and (3) Cloud Computing (Graham, 2020). These innovations have revolutionized e-Health and its ecosystem (Graham, 2020; Kadhim et al., 2020; Aceto et al., 2020). The concept of the IoT or Industry 4.0 is generally used to interconnect various resources across fields, including medical resources (Aceto et al., 2020; Kadhim et al., 2020; Yuehong et al., 2016). IoT offers effective, reliable, and intelligent health services to various patients, especially patients with chronic illnesses (Yuehong et al., 2016). IoT-based innovative healthcare services have been recently established to ease the problems of scarce resources and people's access to affordable healthcare (Aceto et al., 2020). For instance, IoT aids in addressing rising cases of epidemics such as COVID19 and the aging population (Aceto et al., 2020; Kadhim et al., 2020). An IoT healthcare system in this context uses to connect the entire resources as a system to carry out healthcare activities, including patients' diagnosing, patients' monitoring, and distant surgeries using the Internet (Graham, 2020; Kadhim et al., 2020).

The process of IoT-based in the healthcare system is presented in Figure 1. The framework was designed to extend the health activities from hospitals and the public to their homes (Yuehong et al., 2016). This can be achieved by integrating various monitoring devices using wireless technology and the front-end is used as a network manager (Yuehong et al., 2016).

As reported in Figure 1. The model consists of three key elements: The Master, the Server, and the Things (Yuehong et al., 2016). The Master comprises the frontline healthcare workers such as the nurses, doctors, and the patients, who specifically have the permission to use the system through end-user devices such as Smartphones or tablets. The Sever will serve as the central element of the whole healthcare system (Yuehong et al., 2016). The Sever further has the responsibility of database management, knowledge base management, data analysis, prescription generation, and sub-system construction (Yuehong et al., 2016).

Besides, studies have identified that the digital era has transformed the human resource elements (Sharma & Hota, 2013; Fenech et al., 2019). Finally, the Things comprise all the physical features such as the patients and human elements linked by multi-media technology or WAN. Although many studies were conducted to identify the predictors and consequences of OHIS intention, the findings are mixed, and the dominant predictors and outcomes of OHIS intention remain uncertain (Wang et al., 2020). Therefore, incorporating the moderating variable is essential to contribute to the literature. This paper proposed the Hospital's corporate image as a critical moderator on the relationship between the predictor and outcomes variables.

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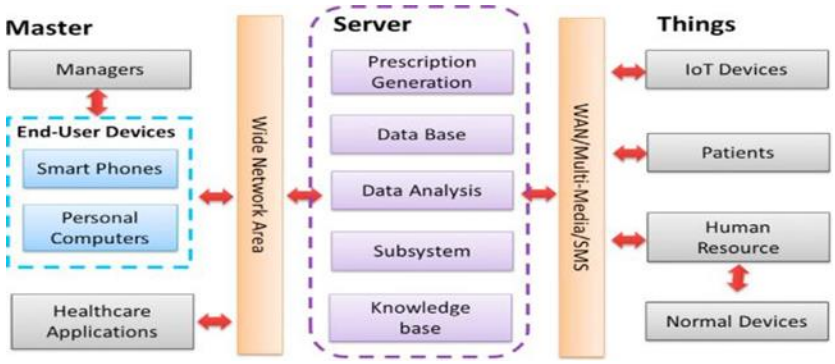

FIGURE 1

SYSTEM ARCHITECTURE OF THE IOT

Source: Yuehong et al., 2016

Despite the importance of information seeking in the healthcare context, few studies on the antecedents and consequences of health information seeking and behavioral intention in Asian countries (Linn et al., 2019), including Malaysia and Indonesia. Therefore, the primary purpose of our paper was to investigate the effect of information quality, perceived value, perceived personal health value, and trust on OHIS intention. Besides, the moderating role of the Hospital's corporate image will be used as a moderating variable on the relationships mentioned above. This model is validated; it will present empirical support that could assist policymakers and Malaysian and Indonesian citizens understand the various antecedents and consequences of health information seeking and behavioral intention. Therefore, the objectives of this paper are:

1. To investigate the relationship between information quality, perceived personal health value, and trust in OHIS intention.
2. Moderating of hospital's corporate image on the relationship between information quality, perceived value, perceived personal health value, and trust on OHIS intention

The following section has outlined the popular theories underpinning the phenomena of information seeking. These theories shed light on the central role of information seeking. This study has reviewed the following approaches and proposed novel factors such as hospital corporate image and information quality that have been neglected in these theories (Yoon, 2020). For example, as mentioned earlier, technological advancements (e.g., IoT, etc.) have revisited the inevitabilities of information-seeking behavior (Gong et al., 2020; Kadhim et al., 2020). Furthermore, the rapid digitalization of the healthcare system has transformed the resource utilization mechanism of information seeking (Rosenberg et al., 2020). Therefore, the dynamics of accessibility to digital resources (Tajpour& Hosseini, 2021), for instance, need more sophisticated digital literacy (Arcury et al., 2020). In a similar vein, the citizens are also expecting quality information from the healthcare management to cope with the digital IoT's requirements (Yoon, 2020). Hence, an exhaustive review of populous models has been provided in the next section, followed by outlining the novel determinants of information seeking and digital literacy.

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Theory

Information seeking behavior model

There are many models of information-seeking behavior in the information literature (Kundu, 2017): these models highlighting the statement that intends to explain various information-seeking activities (Kundu, 2017), what are the consequences and the causes of that activity, and/or highlighting the associations or links among information-seeking behavior stages (Daei et al., 2020; Kundu, 2017). Extant literature affirmed that OHIS indicates cautious and dynamic striving to accomplish definite evidence using multiple available sources (Raza et al., 2020). Thus, OHIS may involve reliance on any kind of digital and traditional media content such as health news or interactive dialogue with peers about a specific health matter (Linn et al., 2019). On the other hand, literature reported that few models make an effort in the stages to specify relationships of theoretical propositions (Kundu, 2017). In this paper, the Information Behavior Model by Wilson (1981), and Wilson (1997) Model of Information Behavior and nested model of information behavior were review because they are more relevant to this study.

Wilson's information behavior model

The primary tenant of Wilson (1981) model reported in Figure 2 is to sketch out the range of areas covered ‘information-seeking behavior’ purposes as a substitute to 'information needs.' Wilson proposes that information-seeking behavior occurs due to the requirement perceived by the users of information in different phases or sequences (Wilson, 2000; Wilson, 1997; Wilson, 1994; Wilson, 1981). To satisfy the users’ needs, users create demands of the formal or informal information source or services (Wilson, 1981), resulting in failure or success to get appropriate information (Wilson, 1981). If the result happens to be successful, the citizens make proper use of that information found and could moreover totally or partially satisfy the perceived need (Wilson, 1981). Wilson’s (1981) model highlights the element of that information-seeking behavior to involve other citizens through information exchange (Wilson, 1981).

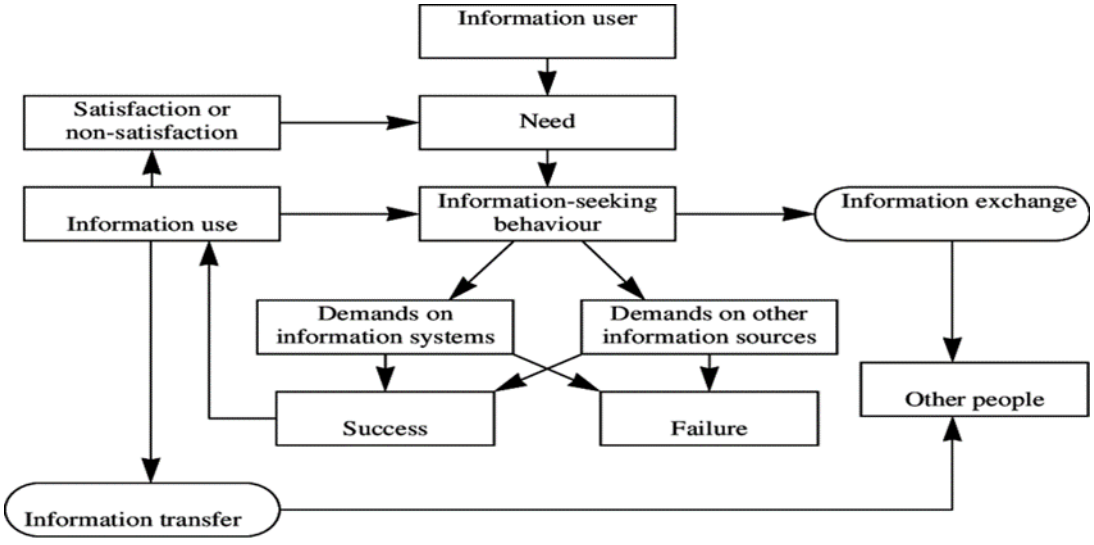

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FIGURE 2

WILSON'S INFORMATION BEHAVIOR MODEL

Wilson's model of information behavior (1996)

Wilson (1997) prepared an added model, which is the amendment to His 1981 information behavior model. In the model, as shown in Figure 3, a range of cycles of information actions take place, start from the information required to the stage of information processing and used. In Wilson's 1996 model, the 'intervening variables' were added under the third group in Figure 3 that shows how information-seeking barriers develop through information needs. In addition, psychological, environmental, demographic, and role-related or interpersonal were added as source characteristics.

The central principle in Wilson's 1997 revised model is that information desires are to be fulfilled. For instance, "information processing and use" become a necessary element of the feedback loop revealed at the underneath of the model. The Wilson 1997 model furthermore reported four related criteria of information-seeking behavior to elucidate citizens' behavior which is represented as the 'self-efficacy, stress/coping, risk/reward, and social learning theory.

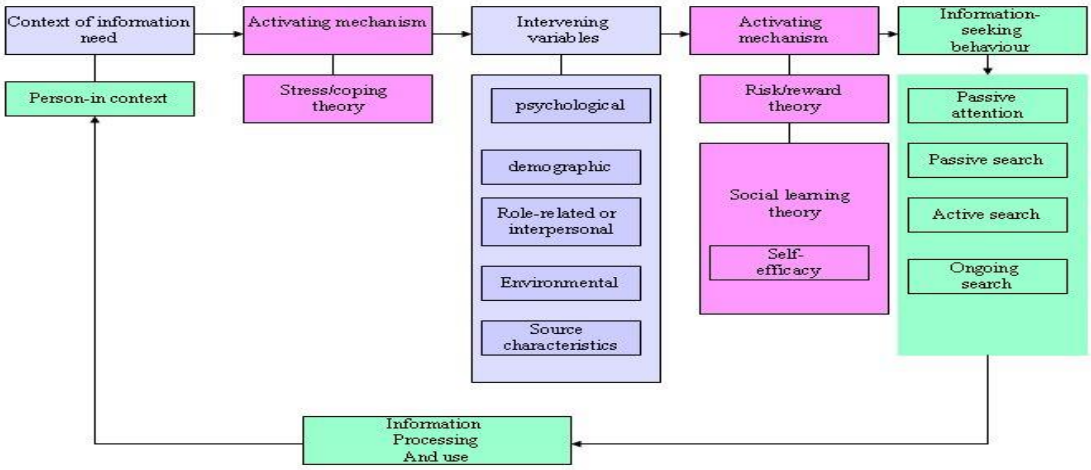

FIGURE 3

WILSON'S MODEL OF INFORMATION BEHAVIOR (1997)

The activating components are mental elements that are clarified by these various theories and brief the citizens or users to continue with the information looking for the process. Consequently, Wilson recognized the attributes of different human conduct models in his model. The model causes one to notice the interrelated idea of the information conduct hypothesis, regardless of whether the hypothesis is drawn from different controls or the exploration conventions of Information Science. Wilson additionally joined Elli's "behavioral characteristics" of information chasing. These qualities depict information-seeking activities (Wilson, 1981; Wilson, 1994; Wilson, 1997; Wilson, 2000). With regards to the subsequent model in Figure 4 was offered by Wilson in 1999 (Wilson, 2000). Wilson stated that user information search

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behavior is a subset of information-seeking behavior and to facilitate information-seeking behavior is in turn only a subset of all possible information behavior (Wilson, 2000).

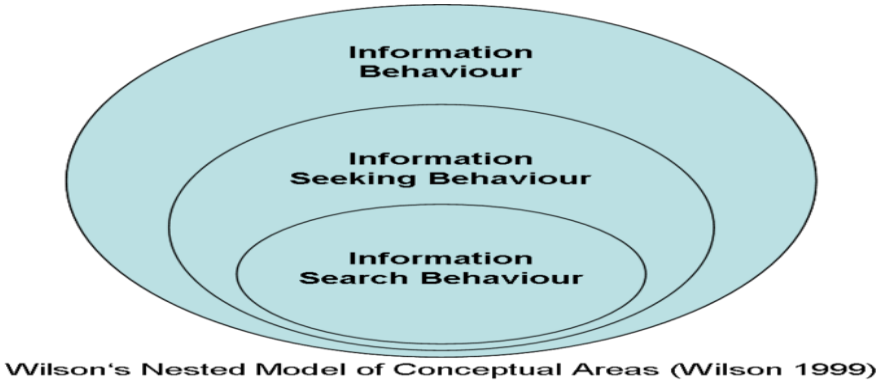

FIGURE 4

WILSON'S MODEL (1999)

METHODOLOGY

The study has employed the review method to get an insight into the current literature available. This is an established method to analyze the existing literature to find out the possible predictors tested in the past research. Furthermore, this method is suitable to draw assumptions for proposing the conceptual model. The study followed the four steps; (a) selection of an understudied topic, (b) describes the research objectives, (c) chosen the scope of review (i.e., empirical studies with health-information seeking outcomes), and (d) selected the databases used to search the relevant studies using the keywords, (e) analyzed the searched literature to draw assumptions. In doing so, the study has followed the methodological directions and the guidelines. To execute this literature review approach, previous empirical studies were gathered; high-impact articles were broadly searched. The recognized electronic databases including Science Direct, SAGE, Emerald, EBSCO, Web of Science, Taylor & Francis, Scopus, and Google Scholar were used.

Additionally, the search words applied for extraction of the relevant articles were "Online Health Information Seeking," "OHIS intention," "Information Quality," "Perceived value," "Perceived personal health value," "Trust" and "Hospital's corporate image." This resulted in the gathering of quality articles containing these terms. Furthermore, the published articles over the previous decade, i.e., from 2010 to 2020, were extracted for the review. In addition to the published articles, published reports were also used. The research compiled the extracted data and analyzed the antecedents and consequences of the health information seeking and communicative behaviors. In light of the searched data in the next section, we have identified the assumptions to provide a comprehensive conceptual model.

A Conceptual Framework and Hypotheses Development

The study model in this study which was extended from Wilson's Model of Information Behavior (1997), is revealed in Figure 5. Figure 5 shows that Information Quality, Perceived

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Value, perceived personal health value, and trust is independent variables while the user's OHIS intention is the dependent variable. Besides, the hospital's corporate image will be a moderating variable on the relationships mentioned above.

Online Health Information System Intention

In psychology, human behavior can be measurable and observable (Gong et al., 2020; Nejati et al., 2011; Rosenberg et al., 2020). These behaviors consist of attitudes, thoughts, beliefs, perceptions, and intentions (Gong et al., 2020). The word "intention" has been defined by many authors from different perspectives. Ajzen (2011) provided the most general meaning of behavioral intention as "indications of a person's readiness to perform a behavior." (p. 1122). Interestingly, the focus of this study is to study the antecedents of citizens' behavioral intention to use online health information systems in Asia. Various studies established that individual behavioral intention is the significant determinant of their actual behavior (Gong et al., 2020; Tama et al., 2020). For instance, Tama et al. (2020) and Ajzen (1991) agreed that the most significant constructs determining people's acceptance/adoption and use of information technology such as online health services are the individuals' intention. Citizens' behavioral intention construct has been researched widely across various research fields, particularly in the user's use of online health services (Jin et al., 2021).

In this paper, it is argued that behavioral intention is an extrinsic/intrinsic patient's behavior that finally leads to using online health services from the intention initially made (Gong et al., 2020; Rosenberg et al., 2020). Specifically, since the focus of this paper is to investigate the citizens' behavior intention to use online health information services, thus the study refers to citizens' intention to use online health information services as the citizens' extrinsic/intrinsic behavior, which results to plan and attempt toward their actual use of online health information services. This definition is drawn (Ajzen, 1991) from that postulates intention result to action, while the action is referred to as the use of online health information services through PDAs, phones, computers, and other related devices.

Information Quality

Various studies have extensively defined the information quality construct in multiple ways. According to Eppler (2006), information quality is "the degree to which the information meets the user's expectations and the degree to which the information meets the requirements of the particular activity in which the user is engaged." Hilligoss and Rieh (2008) defined the concept as "user subjective judgment of goodness and usefulness of the information." Taylor and Taylor (1986) described information quality as "the value of the information has concerning purposed at hand." Quality information is regarded among the vital aspects of the OHIS intention (Cabrera-Sánchez, & Villarejo-Ramos, 2020; Hills & Shah, 2020). Information is an avenue provider, and governments' agencies can reach their citizens to encourage them to use OHIS. The significance of the healthcare industry makes it significant for quality information (Yoon, 2020). The only way to create online health information clear and qualitative is by providing such information to the citizens. Hence, it is essential to recognize what the possible users of OHIS are searching for when looking for online information through various contents on applications, social media, and websites (Hills, & Shah, 2020; Moghadamzadeh et al., 2020).

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The advance of the Internet makes information search more manageable and convenient among citizens (Wang, & Teo, 2020). Digital information by using various online platforms can enhance the citizens the opportunities to build direct relationships linking the users and information providers (Hills, & Shah, 2020). Both citizens and government can allow their communication method while dropping various costs and sinking search efforts (Wang, & Teo, 2020). Recently, citizens desire the whole thing to be fast and easy (Hills, & Shah, 2020). Therefore, information providers globally are always trying to provide quality information that is accurate to their users (Hills, & Shah, 2020).

Lam and McKercher (2013) opined that quality information should always be comparable accessible. The soundness of any quality information can be measured with its accuracy and completeness (Lam & McKercher, 2013). Therefore, it is vital to assume that enhanced reliability of the report is to ensure information conformity. Indeed, Baninajarian and Abdullah (2009) conceptualized the group effectiveness model with emphasis on the team's communication skills to improve information quality. Information quality construct has been extensively investigated across various research fields to understand users' intention to use an online environment (Cabrera-Sánchez, & Villarejo-Ramos, 2020; Hills & Shah, 2020). The findings showed that information quality is the essential factor affecting OHIS intention and thus making enhanced online decisions (Abd-alrazaq et al., 2019; Lee & Lin, 2019; Ren et al., 2019). Therefore, the following hypothesis is advanced:

H1: Information Quality has a positive and significant effect on OHIS intention.

Perceived value

Values are not simply a guiding doctrine or principles about some attractive end-state of reality but the means that citizens utilize to appraise actions and events (Bouman et al., 2020; Abd-alrazaq et al., 2019; Lee & Lin, 2019; Ren et al., 2019). Value could be extrinsic; the practice helps the online health users to attain some definite objective (Bouman et al., 2020). On the other hand, values might be intrinsic to the knowledge it has for its own sake ((Bouman et al., 2020).

Bouman et al. (2020) employ the empirical value presumption to clarify why users will carry on to use online health information services and categorize values into conditional, social, emotional, functional, and epistemic values. Despite this comprehensive conceptualization, several scholars recommend that hedonic and utilitarian variables are two different dimensions of personal values towards intention to use online health information services (Bouman et al., 2020; Abd-alrazaq et al., 2019; Lee & Lin, 2019; Ren et al., 2019). Utilitarian value is defined as the goal-oriented, functional and rational, rationale when using online health information services. Whereas hedonic value entails the enjoyment being the direct reimbursement of users' gains in using the site. Social values are a bunch of good standards characterized by societal elements, organizations, conventions, and social convictions (Kozakov, 2021). These qualities are verifiable rules that guide people and partnerships to act appropriately inside a social framework. Many studies reported direct linkages between Perceived value and users' OHIS intention (Bouman et al., 2020; Jackson et al., 2007; Li et al., 2014). Thus, the following hypothesis is advanced:

H2: Perceived value has a positive and significant effect on OHIS intention.

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Perceived personal health value

Values are not simply a guiding doctrine or principles about some attractive end-state of reality but the means that citizens utilize to appraise actions and events (Bouman et al., 2020; Abd-alrazaq et al., 2019; Lee, & Lin, 2019; Ren, Deng, et al., 2019). Value could be extrinsic. The practice helps online health users to attain some definite objective (Bouman et al., 2020). Instead, values might be intrinsic to the knowledge it has for its own sake ((Bouman et al., 2020).

Numerous researchers have set that conduct is a consequence of a few variables, including personal health values. Connor and Becker (1979) recommended that values establish singular suppositions that lead to the advancement of dynamic practices. Connor and Becker (1979) expressed that values, when completely conceptualized, become rules for decisions and inclinations. Since personal health values have for some time been seen as a significant determinant of human conduct, it is imperative to comprehend their pertinence in understanding users' online health information system usage (Jackson, Tucker, & Herman, 2007). Notwithstanding the attention on how treatment functions, there has been expanding interest in hierarchical parts of online use of health information (Jackson et al., 2007).

Many studies reported direct linkages between personal health values and users' OHIS intention (Jackson et al., 2007; Li et al., 2014). Thus, the following hypothesis is advanced:

H3: Perceived personal health value has a positive and significant effect on OHIS intention.

Trust

Earlier investigations have established the significance of integrating trust in understanding users' intentions to use online technology (Ahmad et al., 2019; Nguyen et al., 2019; Xie et al., 2020). Gefen et al. (2003) dissected the pertinence of trust in understanding intention to use online technology, including OHIS, to that trust is as significant as other developments in web-based use.

Albeit past information system research exhibited that trust could impact special innovation acknowledgment, there is a specific need to comprehend the effect of faith in OHIS intention. From one viewpoint, boundaries between the hospitals, and patients, can obstruct the selection of new hospital product innovation (Xie et al., 2020), as can patient and doctor worries about the protection and security of hospital cite (Xie et al., 2020). Then again, trust in various circumstances is shaped dependent on variables that can be affected by situational changes. For instance, Xie et al. (2020) opined that four developments encouraged beginning trust in an authoritative relationship, including character, institutional, calculative, and intellectual builds. To quantify the citizens', trust toward an online use of OHIS, McKnight et al. (2002) applied two arrangements of predecessor variables and two dependent variables components. Correspondingly, Zahedi and Song (2008) dissected trust development toward wellbeing by incorporating social conduct, financial aspects, and individual points of view of buyer activities. Contrasted with numerous information innovation frameworks, many studies reported direct linkages between trust and users' OHIS intention (Ahmad et al., 2019; Nguyen et al., 2019; Xie et al., 2020). Thus, the following hypothesis is advanced:

H4: Trust has a positive and significant effect on OHIS intention.

Moderating Role of Hospital's Corporate Image

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Nguyen (2006) describes the corporate image as an individual's or citizens' reaction to total offerings and is connected to organizations name, tradition, architecture, an impression of quality, variety of products/services, ideology, and to the corresponding by each individual relating with the organization (Nguyen, 2006; Trivedi, 2020). In this context, hospital corporate image is defined as the users' reaction to total offerings. Therefore, it is connected to hospital name, tradition, the architecture of online services, an impression of online quality, variety of products/services, ideology, and the corresponding by each citizen relating with the hospital (Abdullah, 2009; Nguyen, 2006; Trivedi, 2020).

Past examination demonstrates that having a good corporate image and notoriety can give a hospital an unmistakable and trustworthy allure, just as a more powerful type of separation and a wellspring of upper hand (Nguyen, 2006; Trivedi, 2020). It is accepted that the corporate picture isn't simply an issue of window dressing yet a solid pointer of whether an organization will get by later on (Nguyen, 2006; Trivedi, 2020).

In this paper, the hospital's corporate image is expected to be a moderator of the relationship between Information Quality, Perceived Value, Perceived personal health value, and Trust and OHIS intention. First, citizens have an anticipation gap that ordinarily directs online users. Second, by and large, online users' desires rely upon the picture of the hospital to such an extent that hospitals with a great corporate image may impact how the users see their website and the worth discernment (Nguyen, 2006; Trivedi, 2020). Third, since saw users' esteem is a more significant amount of mental image of the worth from the hospitals' administration, hospitals with excellent picture and notoriety will probably cloud the client's psyche with worth solid desire. In this manner, online users' esteem will likely improve the user's reliability when the corporate picture is acceptable (Nguyen, 2006; Trivedi, 2020).

Likewise, the apparent quality of the administration is probably going to be believed to be good when the hospitals' picture is high. The explanation is that online users' assistance quality desire lessens when a hospital has a decent picture since users accept that information of such hospitals is high. Clients who get not precisely have the apparent quality are probably going to excuse the firm. Consequently, saw administration quality will probably upgrade users' dependability when the picture of the hospitals is high. At the exact moment, users' trust improves users' faithfulness when the corporate vision is high (Nguyen, 2006; Trivedi, 2020). Once more, utilizing a similar rationale, client belittling hospitals with great hospitals corporate image is probably going to be mentally fulfilled because they accept such hospitals online in formations offered. Thus, the following hypotheses are advanced:

H5a: Hospital's corporate image moderates the relationship between Information Quality and OHIS intention. The connection is stronger when the Hospital's corporate image is high.

H5b: Hospital's corporate image moderates the relationship between Perceived value and OHIS intention. The connection is stronger when the Hospital's corporate image is high.

H5c: Hospital's corporate image moderates the relationship between Perceived personal health value and OHIS intention. The connection is stronger when the Hospital's corporate image is high.

Hd: Hospital's corporate image moderates the relationship between Trust and OHIS intention. The connection is stronger when the Hospital's corporate image is high.

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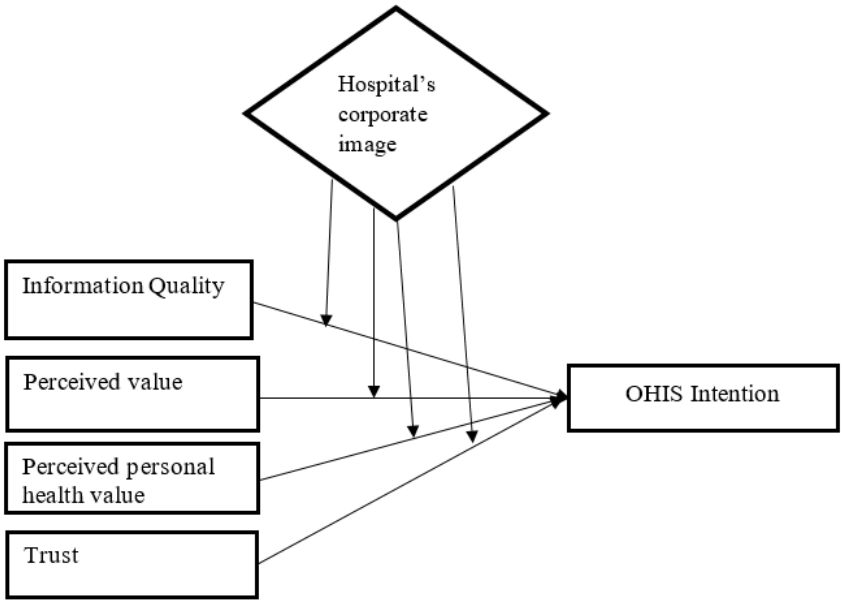

FIGURE 5

CONCEPTUAL FRAMEWORK

CONCLUSION

In conclusion, this paper intended to develop and validated a proposed conceptual framework on the antecedents and consequences of Health Information Seeking and Behavioral Intention. This conceptual framework is planned to guide future studies to use and validate as a foundation for quantitative studies to investigate the antecedents and consequences of OHIS intention in Asia using the Information-Seeking Behavior Model and Online Health Information Seeking. Information Quality, perceived value, perceived personal health value, and Trust on OHIS intention. Also, the moderating role of the Hospital's corporate image will be used as a moderating variable on the relationships as mentioned earlier. The current study has proposed that empirical studies emphasize cultural, psychological, and organizational factors that truly comprehend health communicative behaviors. This model will help empirically validate how corporate image, cultural drivers, and psychological factors (trust) predict the health information seeking in a typical mutual exhaustive informational environment. The findings of our studies subsequently identified these key elements and integrated them more competitively. This would undoubtedly give a more realistic and systematic view of the ongoing phenomenon of information seeking. The study also argues that this model can be employed in the digital context that is a more recent phenomenon. For example, factors such as trust and perceived quality can help identify the individuals' digital engagements. This model is validated it will present empirical support that could assist policymakers and Malaysian and Indonesian citizens to understand the various antecedents and consequences of health Information Seeking and Behavioral Intention. It is recommended that theoretically and practically more Asian values such as encouraging corporate engagement with the healthcare community (Abdullah et al., 2017) can be moderating variables to advance the conceptual framework. In sum, this study provides a novel and comprehensive model to examine the applicable determinants of

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information-seeking behavior. Communicative behaviors are critical to study in this digital era and our findings suggested an innovative conceptual framework that can clarify the role of the situational, psychological, and environmental variables in predicting human communicative health behavior. Finally, this study is a conceptual exploration of the antecedents of the OHIS. Future studies may validate the proposed model using empirical data.

REFERENCES

Abd-alrazaq, A. A., Bewick, B. M., Farragher, T., & Gardner, P. (2019). Factors that affect the use of electronic personal health records among patients: a systematic review. *International Journal of Medical Informatics*, *126*, 164-175.

Abdullah, A., Yaacob, M.R., Ismail, M.B., Zakaria, M.N., Abdullah, Z., & Mohd Radyi, S.A. (2017). Corporate engagement with the community: Building relationships through CSR. *Journal of Engineering and Applied Sciences*, *12*(2), 1538-1542.

Abdullah, Z. (2007). Towards international cultural diversity management of public relations: Viewpoints of chairmen/CEOs. *International Journal of Economics and Management*, *1*(2), 285-299.

Abdullah, Z. (2009). Beyond corporate image: Projecting international reputation management as a new theoretical approach in a transitional country. *International Journal of Economics and Management*, *3*(1), 170-183.

Abdullah, Z. (2010). Cultural diversity management in Malaysia: A perspective of communication management, in M. Özbilgin & J. Syed (Eds.), *Managing cultural diversity in Asia* pp.14-38. Cheltenham: Edward Elgar Publishing Limited.

Aceto, G., Persico, V., & Pescapé, A. (2020). Industry 4.0 and health: The Internet of things, big data, and cloud computing for healthcare 4.0. *Journal of Industrial Information Integration*, *18*, 100129.

Ahmad, M. U., Zhang, A., & Mhaskar, R. (2019). A predictive model for decreasing clinical no-show rates in a primary care setting. *International Journal of Healthcare Management*, *14*(3), 829-836.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211.

Ajzen, I. (2011), The theory of planned behavior: reactions and reflections. *Psychology and Health*, *26*(9), 1113-1127.

Arcury, T. A., Sandberg, J. C., Melius, K. P., Quandt, S. A., Leng, X., Latulipe, C., ... & Bertoni, A. G. (2020). Older adult internet use and eHealth literacy. *Journal of Applied Gerontology*, *39*(2), 141-150.

Baninajarian, N., & Abdullah, Z. B. (2009). Groups in context: A model of group effectiveness. *European Journal of Social Sciences*, *8*(2), 335-340.

Bouman, T., Steg, L., & Zawadzki, S. J. (2020). The value of what others value: When perceived biospheric group values influence individuals' pro-environmental engagement. *Journal of Environmental Psychology*, *71*, 101470.

Cabrera-Sánchez, J. P., & Villarejo-Ramos, Á. F. (2020). Acceptance and use of big data techniques in services companies. *Journal of Retailing and Consumer Services*, *52*, 101888.

Chrysoula, K., Georgios, S., Miltiadis, C., Stamatios, N., & Grigorios, K. (2018). The contribution of mentoring on employee's career development with non-dependent work relation: The case of the networking company LR health & beauty systems. *Academy of Strategic Management Journal*, *17*(1), 1-14.

Connor, P. E., & Becker, B. W. (1979). Values and the organization: Suggestions for research. W: M. Rokeach (red.), *Understanding Human Values* pp. 71-81.

Daei, A., Soleymani, M. R., Ashrafi-rizi, H., Zargham-Boroujeni, A., & Kelishadi, R. (2020). Clinical Information Seeking Behavior of Physicians: A Systematic Review. *International Journal of Medical Informatics*, 139, 104144.

Directorate-General for Communication (2014). *Flash Eurobarometer 404: Eurobarometer on digital health literacy*. Retrieved from: http:// data.europa.eu/euodp/data/dataset/S2020_404

Ekpe, I., Razak, R. C., Ismail, M., & Abdullah, Z. (2015). Entrepreneurial skill acquisition and youth's self-employment in Malaysia: How far? *Mediterranean Journal of Social Sciences*, *6*(4), 150-154.

Ekpe, I., Razak, R.C., Ismail, M., & Abdullah, Z. (2016). Entrepreneurial skill acquisition, psychosocial factors, and youth's self-employment in Malaysia. *Journal of Entrepreneurship Education*, *19*(2), 78-88.

Citation Information: Putri, K. Y. S., Abdullah, Z., Raza, S. H., & Istiyanto, S. B. (2021). The antecedents and consequences of health information seeking and behavioral intention. *Journal of Management Information and Decision Sciences, 24*(S5), 1-11.

Eppler, M. J. (2006). *Managing information quality: Increasing the value of information in knowledge-intensive products and processes*. Springer Science & Business Media.

Fenech, R., Baguant, P., & Ivanov, D. (2019). The changing role of human resource management in an era of digital transformation. *Journal of Management Information and Decision Sciences, 22*(2), 1-10.

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly, 27*(1), 51-90.

Gong, X., Zhang, K. Z., Chen, C., Cheung, C. M., & Lee, M. K. (2020). The transition from the web to mobile payment services: The triple effects of status quo inertia. *International Journal of Information Management, 50*, 310-324.

Graham, C. (2020). Fear of the unknown with healthcare IoT devices: An exploratory study. *Information Security Journal: A Global Perspective, 30*(2), 1-11.

Hilligoss, B., & Rieh, S. Y. (2008). Developing a unifying framework of credibility assessment: Construct, heuristics, and interaction in context. *Information Processing & Management, 44*(4), 1467-1484.

Hills, O., & Shah, D. (2020). Online health information seeking, medical care beliefs, and timeliness of medical check-ups among African Americans. *Patient Education and Counseling, 103*(12), 2468-2476.

Hyzam, D., Zou, M., Boah, M., Saeed, A., Li, C., Pan, S., & Wu, L. J. (2020). Health information and health-seeking behavior in Yemen: perspectives of health leaders, midwives, and mothers in two rural areas of Yemen. *BMC Pregnancy and Childbirth, 20*(1), 1-12.

Jackson, E. S., Tucker, C. M., & Herman, K. C. (2007). Health value, perceived social support, and health self-efficacy as factors in a health-promoting lifestyle. *Journal of American College Health, 56*(1), 69-74.

Jin, Q., Raza, S. H., Yousaf, M., Zaman, U., & Siang, J. M. L. D. (2021). Can Communication Strategies Combat COVID-19 Vaccine Hesitancy with Trade-Off between Public Service Messages and Public Skepticism? Experimental Evidence from Pakistan. *Vaccines, 9*(7), 757.

Putri, K. Y. S., Abdullah, Z. S. Bekti, & Anumudu, C.E. (2020). The Antecedents and Consequences of E-Health Literacy in the Pharmaceutical Industry: An Agenda for Future Research. *International Journal of Applied Pharmaceutics, 12*(6), 1-6.

Kadhim, K. T., Alsahlany, A. M., Wadi, S. M., & Kadhum, H. T. (2020). An Overview of Patient's Health Status Monitoring System Based on Internet of Things (IoT). *Wireless Personal Communications,* 114(3), 22352262.

Kozakov, V., Kovalenko, N., Golub, V., Kozyrieva, N., Shchur, N., & Shoiko, V. (2021). Adaptation of The Public Administration System to Global Risks. *Journal of Management Information and Decision Sciences, 24*(2), 1-8.

Kundu, D. K. (2017). Models of information seeking behavior: A comparative study. *Methodology, 7*(4), 393-405.

Lalazaryan, A., & Zare-Farashbandi, F. (2014). A review of models and theories of health information-seeking behavior. *International Journal of Health-System and Disaster Management, 2*(4), 193.

Lam, C., & McKercher, B. (2013). The tourism data gap: The utility of official tourism information for the hospitality and tourism industry. *Tourism Management Perspectives, 6*, 82-94.

Lee, S. T., & Lin, J. (2019). The influence of offline and online intrinsic motivations on online health information seeking. *Health Communication, 35*(9), 1-8.

Li, H., Gupta, A., Zhang, J., & Sarathy, R. (2014). Examining the decision to use standalone personal health record systems as a trust-enabled fair social contract. *Decision Support Systems, 57*, 376-386.

Linn, A. J., van Weert, J. C., Gebeyehu, B. G., Sanders, R., Diviani, N., Smit, E. G., & van Dijk, L. (2019). Patients' online information-seeking behavior throughout a treatment: The impact on medication beliefs and medication adherence. *Health communication, 34*(12), 1461-1468.

McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information systems research, 13*(3), 334-359.

Moghadamzadeh, A., Ebrahimi, P., Radfard, S., Salamzadeh, A., & Khajeheian, D. (2020). Investigating the role of customer co-creation behavior on social media platforms in rendering innovative services. *Sustainability, 12*(17), 6926.

National Cancer Institute (2018). Health information national trends survey 5 cycles 2. Retrieved from: https://hints.cancer.gov/viewquestions-topics/question-details.aspx?PK_Cycle=11&qid=688

Nejati, M., Salamzadeh, Y., & Salamzadeh, A. (2011). Ecological purchase behaviour: insights from a Middle Eastern country. *International Journal of Environment and Sustainable Development, 10*(4), 417-432.

Nguyen, N. (2006). The collective impact of service workers and servicescape on the corporate image formation. *International Journal of Hospitality Management, 25*(2), 227-244.

Citation Information: Putri, K. Y. S., Abdullah, Z., Raza, S. H., & Istiyanto, S. B. (2021). The antecedents and consequences of health information seeking and behavioral intention. *Journal of Management Information and Decision Sciences, 24*(S5), 1-11.

Nguyen, Q. N., Ta, A., & Prybutok, V. (2019). An integrated model of voice-user interface continuance intention: The gender effect. *International Journal of Human-Computer Interaction, 35*(15), 1362-1377.

Raza, S. H., Iftikhar, M., Mohamad, B., Pembecioğlu, N., & Altaf, M. (2020). Precautionary behavior toward dengue virus through public service advertisement: mediation of the individual's attention, information surveillance, and elaboration. *SAGE Open, 10*(2), 2158244020929301.

Ren, C., Deng, Z., Hong, Z., & Zhang, W. (2019). Health information in the digital age: an empirical study of the perceived benefits and costs of seeking and using health information from online sources. *Health Information & Libraries Journal, 36*(2), 153-167.

Rosenberg, D., Mano, R., & Mesch, G. S. (2020). Technology Experience, Health Beliefs, or Background? Examining the Factors Affecting the Intention to Use Social Media for Health Purposes. In *Understanding Media and Society in the Age of Digitalisation* (pp. 209-231). Palgrave Macmillan, Cham.

Saparaliyev, D., Spankulova, L., Zhaxylykova, A., Aldashova, G., Saiymova, M., & Akhmetova, G. (2019). Impact of new technologies, innovations & barriers on the service delivery and financial income of the private business in transitional economies: The case of health centers. *Academy of Strategic Management Journal, 18*(3), 1-10.

Sharma, D. K., & Hota, H. S. (2013). Data mining techniques for prediction of different categories of dermatology diseases. *Journal of Management Information and Decision Sciences, 16(*2), 103.

Tajpour, M., & Hosseini, E. (2021). Entrepreneurial Intention and the Performance of Digital Startups: The Mediating Role of Social Media. *Journal of Content, Community & Communication, 13*, 2-15.

Tama, R. A. Z., Ying, L., Yu, M., Hoque, M. M., Adnan, K. M., & Sarker, S. A. (2020). Assessing farmers' intention towards conservation agriculture by using the Extended Theory of Planned Behavior. *Journal of Environmental Management, 280*, 111654.

Taylor, R. S., & Taylor, R. S. (1986). Value-added processes in information systems. Greenwood Publishing Group.

Trivedi, J. (2020). Effect of the corporate image of the sponsor on brand love and purchase intentions: The moderating role of sports involvement. *Journal of Global Scholars of Marketing Science, 30*(2), 188-209.

Wang, C., & Teo, T. S. (2020). Online service quality and perceived value in mobile government success: An empirical study of mobile police in China. *International Journal of Information Management, 52,* 102076.

Wang, X., Shi, J., & Kong, H. (2020). Online Health Information Seeking: A Review and Meta-Analysis. *Health Communication, 16*, 1-13.

Wilson, T, D. (1994). Information needs and uses: fifty years of progress? In B. C. Vickery. (Ed). *Fifty years of information progress*. A Journal of Documentation review. London: Aslib.

Wilson, T, D. (1997). Information behaviour: an interdisciplinary perspective. Information Processing and Management, 33(4), 551-572.

Wilson, T. D. (2000). Human information *behavior*. *Informing Science: The International Journal of an Emerging Transdiscipline, 3*(2), 50-55.

Wilson, T.D. (1981). On user studies and information needs. *Journal of Documentation, 37*(1), 3-15. 21.

Xie, H., Prybutok, G., Peng, X., & Prybutok, V. (2020). Determinants of Trust in Health Information Technology: An Empirical Investigation in the Context of an Online Clinic Appointment System. *International Journal of Human-Computer Interaction, 36*(12), 1095-1109.

Yigzaw, K. Y., Wynn, R., Marco-Ruiz, L., Budrionis, A., Oyeyemi, S. O., Fagerlund, A. J., & Bellika, J. G. (2020). The association between health information seeking on the internet and physician visits (The Seventh Tromsø Study-Part 4): population-based questionnaire study. *Journal of medical Internet research, 22*(3), e13120.

Yoon, T. J. (2020). Quality information disclosure and patient reallocation in the healthcare industry: Evidence from cardiac surgery report cards. *Marketing Science, 39*(3), 636-662.

Yuehong, Y. I. N., Zeng, Y., Chen, X., & Fan, Y. (2016). The internet of things in healthcare: An overview. *Journal of Industrial Information Integration, 1*, 3-13.

Zhang, X., Foo, S., Majid, S., Chang, Y. K., Dumaual, H. T. J., & Suri, V. R. (2020). Self-Care and Health-Information-Seeking Behaviours of Diabetic Patients in Singapore. *Health Communication, 35*(8), 994-1003.

Zhang, Y., Yousaf, M., & Xu, Y. (2019). Chinese traditional culture and Art communication in digital era: Strategies, issues, and prospects. *Journal of Media Studies, 32*(1), 61-75.

Ziyae, B., Sadeghi, H., Shahamat Nejad, M., & Tajpour, M. (2021). A Framework of Urban Entrepreneurship for Women Breadwinners. *Foresight journal, 23*(5), 597-609.

Citation Information: Putri, K. Y. S., Abdullah, Z., Raza, S. H., & Istiyanto, S. B. (2021). The antecedents and consequences of health information seeking and behavioral intention. *Journal of Management Information and Decision Sciences, 24*(S5), 1-11.