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The effect of perceived usefulness, perceived risk and offline consultation habit on telemedicine user behavioral intention

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ABSTRACT

Healthcare in Indonesia was going through inadequate doctor-patient ratio phenomenon which could give difficulties for some people to obtain healthcare. As technology developed and advanced, there have been alternative methods for healthcare workers to provide health services online, through telemedicine. The increased number of telemedicine users since the pandemic has required service providers to improve the quality of their services according to patient's needs. The quality of these services could be influenced by factors such as perceived usefulness, perceived risk and offline consultation habits. This paper aims to analyze the relationship between perceived usefulness, perceived risk & offline consultation habits on user satisfaction, perceived value and behavioral intention. Data was gathered from cross-sectional design via google form. Data was analyzed using SPSS version 25 and SEM AMOS 21 program to analyze the influence between variables. The results showed that seven hypotheses were supported, and a hypothesis was not supported, where perceived risk variable had no effect on perceived value. This study shows that the variables perceived usefulness, perceived risk, offline consultation habits, perceived value and user satisfaction have significant impact on the behavioral intention to use telemedicine.

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INTRODUCTION

Health service is a primary need that must be owned by everyone. Medical professionals like doctors are crucial in order to examine and determine diagnosis that contribute to treatment result. Based on WHO (World Health Organization), the ratio of doctors to population should be 1:1000, but in Indonesia the ratio of doctors to population is 1:2500 (Kemenkes, 2018; WHO, 2010). This unbalanced ratio in Indonesia can be caused by the very high number of its population and exacerbated by the imbalance in the distribution of medical personnel, health care facilities and the community. Until

now, medical personnel and health service facilities tend to be fixed in one area so that, apart from efforts to increase the number of medical personnel available in Indonesia, there are other options that can be used as alternatives, namely a media and method to facilitate the performance of healthcare (Ningsih et al., 2022).

The ongoing COVID-19 pandemic also played an important role in introducing health services to more people and directly contributed to the rapid development of the healthcare industry sector. In 2020, the healthcare market was valued at $3.9 billion and is predicted to grow to $16 billion by 2026. The development of the healthcare industry is driving healthcare facilities both directly and boldly to provide satisfying and valuable health services (Putra & Suryanata, 2021).

Telemedicine uses information and communication technology to exchange information for the purpose of knowing the diagnosis and treatment of disease and illness, research evaluation and for continuing education for health professionals" (WHO, 2010). Testimonials from other patients will also influence individual decision making to use telemedicine facilities and the selection of medical personnel. This testimony is one of the factors that influence individual risk perception. Previous research has shown that the risk perception variable has a negative effect on perceived value and user satisfaction (Tzavlopoulos et al., 2019). The quality of these services can be measured from various factors. Previous research has shown a relationship between perceived usefulness, perceived risk and perceived value and behavioral intentions (Goyal et al., 2022; Gu et al., 2018). Repeated use intention (behavioral intention) is an indicator that telemedicine users feel satisfaction and benefits in using telemedicine so that it is a goal that must be achieved for health service providers.

In 2022, the global online healthcare market was valued at USD 211.0 billion and is projected to grow at a compound annual growth rate (CAGR) of 18.6% from 2023 to 2030. This development of the healthcare industry should encourage healthcare facilities both in person and online to provide satisfying and valued healthcare.(Rashid, 2023) Satisfaction and better value would result in behavioral intention, which is one of the main goals for a business to achieve sustainability. Although the acceptance of telemedicine since pandemic era has been widely accepted by society, the level of benefit of telemedicine depends on several important factors. Previous studies have shown that the attitudes of telemedicine users are significantly influenced by external and internal factors. These factors then influence user attitudes which can trigger telemedicine usage behavior (Goyal et al., 2022; Rho et al., 2015). In this regard, healthcare providers should not only wait and expect patient to use their services but to look out these factors and determine which factors influence telemedicine usage behavior the most.

RESEARCH METHOD

This research is a hypothesis testing study with a cross-sectional design method based on previous research written by several researchers, namely (Goyal et al., 2022; Nutthaporn et al., 2015; Zhang et al., 2017). Data was taken from October 2022 to March 2023. The type of data used is primary data taken directly from the Google form questionnaire. The unit of analysis is in the form of individuals and data is taken using purposive sampling totaling 180 respondents. Validity and reliability tests have been carried out to test the accuracy of using the questionnaire. The results of the data were analyzed using SPSS version 25 to test each variable and SEM with the AMOS program version 21 to analyze the influence between variables either directly or indirectly. Measuring the level of influence of the model was carried out by the Goodness of Fit test and after that the hypothesis testing was carried out.

Behavioral intention is a condition when consumers or service recipients have the urge or intention to buy or use an item or service again and/or voluntarily tell the superiority of the product or service to another person or party (Kotler et al., 2016). This variable is positively influenced by perceived value and user experience (user satisfaction). Perceived value is the perception of service recipients' assessment of the level of acceptance, support, and use of telemedicine to significantly

improve clinical outcomes of care compared to the next best alternative (offline health services) (Han et al., 2019; Kahn et al., 2019). User satisfaction is a patient's psychological condition that involves both good and bad responses to experiences that have been felt when conducting health consultations (Wu et al., 2016). In this study, the conceptual framework contains the assumption that perceived usefulness, perceived risk and offline consultation habit affect perceived value, user satisfaction and behavioral intention. The following is the conceptual framework for this study:

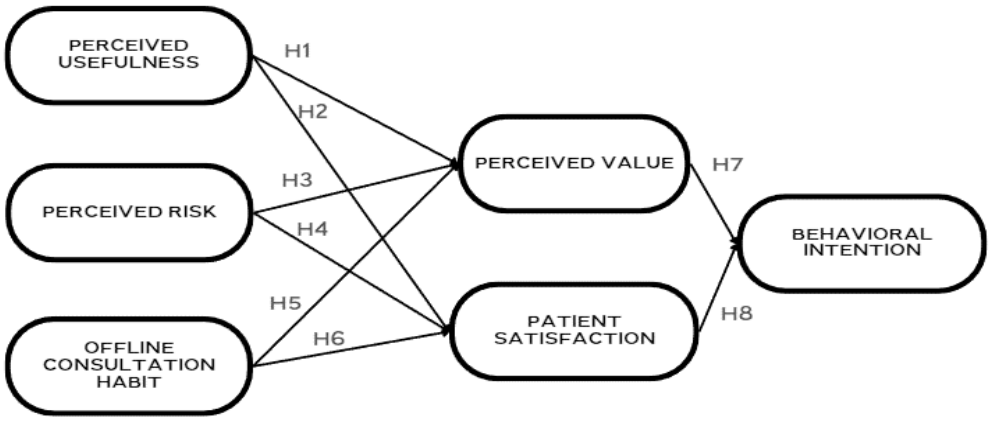

Figure 1. Conceptual Model

RESULTS AND DISCUSSIONS

Hypothesis Testing

Hypothesis testing was carried out on eight hypotheses using an error tolerance limit of 5% (α=0.05) on the basis of decision making if the P-Value <0.05 illustrates that H0 is rejected and H1 is supported, whereas if the P-Value is ≥ 0.05 indicates that H0 is supported and H1 is rejected

Table 1. Hypothesis testing result

Hypothesis	Est.	p-value	Result
H1: Perceived usefulness has a significant positive effect on perceived value.	0,607	0,000	Supported
H2: Perceived usefulness has a significant positive effect on user satisfaction.	0,431	0,000	Supported
H3: Perceived risk has a significant negative effect on perceived value.	0,009	0,842	Not Supported
H4: Perceived risk has a significant negative effect on user satisfaction.	-0,154	0,010	Supported
H5: Offline consultation habit has a significant negative effect on perceived value.	-,0193	0,001	Supported
H6: Offline consultation habit has a significant negative effect on user satisfaction.	-0,184	0,019	Supported
H7: Perceived value has a significant positive effect on behavioral intention.	0,535	0,000	Supported
H8: User satisfaction has a significant positive effect on behavioral intention.	0,733	0,000	Supported

Hypothesis Analysis

H1. Perceived usefulness has a significantly positive effect on perceived value.
The results of the analysis show that the H1 is supported, whereas the perceived usefulness variable significantly has a positive influence on the perceived value variable. This shows that the more telemedicine users find it easy to obtain healing and health, they will feel an increase in health standards and the easier finding information from doctors, the user will find telemedicine very helpful and useful both in terms of costs, risks, benefits, compared to going to visit homes. hospital or clinic. The results of the research analysis are consistent with previous studies where individual perceptions of the benefits of telemedicine will influence the perceived value of using telemedicine itself. The greater the perception of the benefits received by patients in using telemedicine, the higher the perceived value of telemedicine in the eyes of patients (Bian et al., 2023; Chairina, 2021; Esmaeilzadeh, 2018; Goyal et al., 2022; Ye et al., 2022).

H2. Perceived usefulness has a significant positive effect on user satisfaction.
The results of the analysis show that the H2 is supported, whereas the perceived usefulness variable significantly has a positive effect on the user satisfaction variable. This shows that the more telemedicine users find it easy to obtain health, they will feel an increased in health standards and the easier to obtain information from doctors, the user will feel satisfied and comfortable in using telemedicine services because of the fewer obstacles and risks. This finding is consistent with previous research which stated that individual perceptions of the benefits of telemedicine affect individual satisfaction after using it (Bian et al., 2023; Dong et al., 2017; Y. Li & Shang, 2020; Lu et al., 2023). The greater the benefits that patients get when using telemedicine, the higher the level of patient satisfaction in using telemedicine.

Research by Dash, on telemedicine studies shows that there is a significant influence of perceived usefulness variables on individual intentions to adopt telemedicine directly. Individuals who experience great benefits from using telemedicine will immediately have the intention to reuse telemedicine (Dash et al., 2021).

H3. Perceived risk does not have a significant negative effect on perceived value.
The results of the analysis show that the third hypothesis test is not supported, whereas the perceived risk variable has no influence on the perceived value variable. This shows that there is no relationship between insecurity due to the risk of leaking privacy data, insecurity due to misuse of information, and insecurity due to transparent information about user feelings in using telemedicine which is helpful and useful both in terms of costs, risks, benefits, compared to go to a hospital or clinic. This finding is different from previous studies which examined the effect of perceived risk variables on perceived value and found that perceived risk has a significant effect on perceived value (Esmaeilzadeh, 2018; Habibi & Ariffin, 2019; Lu et al., 2023; Naami et al., 2017; Tzavlopoulos et al., 2019; Yan et al., 2021)

In telemedicine, it means that the patient's perceived risk of using telemedicine does not affect the level of perception of the overall value of telemedicine. This can be due to the experience and response from telemedicine users who have never experienced losses due to malicious applications. In addition, this increasingly advanced era also strengthens both the system and the user's view of a secure system. In several other studies, the variable perceived risk is associated with the variable consumer trust and this relationship can be 2-way in which perceived risk negatively influences and is influenced by trust (Bashir & Madhavaiah, 2015; Goyal et al., 2022). In the aspect of telemedicine, patients can directly have a level of trust and reduce the perceived risk of using telemedicine. And conversely, patients can first have a level of risk perception and lower the level of trust.

H4. Perceived risk has a significant negative effect on user satisfaction.
The results of the analysis show that the H4 is supported, whereas the perceived risk variable significantly has a positive effect on the user satisfaction variable. This shows that the insecurity of users because of the risk of leaking privacy data, the insecurity about misuse of information, and the insecurity because other people can see their information, will cause the user to feel dissatisfied and uncomfortable in using telemedicine services. This finding is corresponded with previous studies that analyzed the relationship between the two variables. These results indicate that the perceived risk of telemedicine can also affect patient satisfaction in carrying out care (Bian et al., 2023; Tzavlopoulos et al., 2019).

Several studies have examined the direct relationship between perceived risk and purchase intention and research has found research results where the perceived risk has a significant influence on purchase intention. The direct relationship of these two variables indicates that individual risk perception is one of the direct factors that can influence intention to reuse (Ben Arfi et al., 2021; W. Li et al., 2023a). Meanwhile, there is 1 study which shows the results of the perceived risk variable does not have a significant effect on purchase intention (Ventre & Kolbe, 2020).

H5. Offline consultation habit has a significant negative effect on perceived value.
The results of the analysis show that H5 is supported, whereas the offline consultation habit has a significant negative effect on the perceived value. This hypothesis indicates that the greater the user's intention, mindset and habits to visit directly health care facilities, the less likely user will feel the benefits of telemedicine. This finding is in accordance with previous studies which analyzed the relationship between medication habits and patient value perceptions directly (Dong et al., 2017; Goyal et al., 2022). Patients who have a habit of using health facilities directly will have a lower perceived value of telemedicine than people who don't have the habit. More specifically, the habits of people in carrying out treatments vary and are influenced by internal factors from the individual. This is in a different direction from Ye's research where this study analyzes the doctor-patient interaction in telemedicine and the habit of seeking treatment directly at health facilities. The results showed a significant effect of interactions in telemedicine on the desire to seek treatment directly (Ye et al., 2022).

H6. Offline consultation habit has a significant negative effect on user satisfaction.
The results of the analysis show that H6 is supported, whereas the offline consultation habit has a significant negative effect on user satisfaction. Significantly, this shows that the greater the intention, mindset and habits of users to visit health care facilities, the more likely user will feel dissatisfaction and discomfort when using telemedicine services. This finding is consistent with Goyal and Zhang's research where patient behavior in seeking treatment is will directly reduce the level of patient satisfaction when using telemedicine facilities (Goyal et al., 2022; Zhang et al., 2017) . This can be caused by habits that create an expectation of a treatment, where this expectation can be in the form of direct interaction with medical personnel or expectations of contact when providing care. These things can come from the psychological needs of patients who require assurance from medical professionals.

H7. Perceived value has a significant positive effect on behavioral intention.
The results of the analysis show that H7 is supported, whereas the perceived value significantly has a positive influence on the behavioral intention. This shows that users who experience more advantages than disadvantages and feel the benefits and help from the existence of telemedicine, will have consideration and the possibility to use telemedicine at the next opportunity. This finding is consistent with other studies where the perceived value of consumers directly determines the intention to use products/services repeatedly (Esmaeilzadeh, 2018; W. Li et al., 2023b, 2023a; Naami et al., 2017; Tam, 2012; Yu et al., 2017; Yuen et al., 2019).

Research with another relationship direction by Tam also shows that there is a significant influence between perceived value variables on customer satisfaction (Tam, 2012). The use of telemedicine features in Ye's research shows that perceived value is significantly influenced by the variables perceived benefit, individual subjectivity, personal experience and perceived trust (Ye et al., 2022).

H8. User satisfaction has a significant positive effect on behavioral intention.
The results of the analysis show that the H8 is supported, whereas the user satisfaction has a significant positive effect on the behavioral intention. The results of this hypothesis test indicate that users who feel comfortable and satisfied when using telemedicine will have considerations and choices to use telemedicine in the future. The results of this accepted hypothesis are in accordance with other studies (Faqih, 2016; Y. Li & Shang, 2020; Lu et al., 2023; Nutthaporn et al., 2015; Tam, 2012). Patients who get satisfaction after carrying out telemedicine treatment will have the desire to reuse services when needed. Patients will indirectly get an expectation of treatment after completion.

CONCLUSION

In this study, the relationship between perceived usefulness, perceived risk, offline consultation, perceived value and user satisfaction was analyzed in relation with behavioral intention of telemedicine users. Research has been carried out and the following conclusions can be drawn: (1). perceived usefulness positively and significantly influences perceived value, (2). perceived usefulness positively and significantly influences user satisfaction, (3). perceived risk does not affect perceived value, (4). perceived risk negatively and significantly affects user satisfaction, (5). offline consultation habit negatively and significantly affects perceived value, (6). offline consultation habit negatively and significantly affects user satisfaction, (7). perceived value positively and significantly influences behavioral intention, (8). user satisfaction positively and significantly influences behavioral intention. This research has been carried out, analyzed the relationship between variables and provided useful information from questionnaire to be implicated which include: (1). Telemedicine service providers could provide health workers for consultations who operate 24 hours a day according to their schedule so that they can provide assurance for patients to obtain recovery at any time, (2). Telemedicine service providers to be able to provide certainty regarding consultations that are carried out effectively, namely with a fast flow of message replies, (3). Hospital management to be able to create online health facilities that are integrated with offline health facilities so that the two facilities can help each other in their role of providing healing for patients. This research has several limitations, including: (1). Variables are only measured using scaled answer based on likert scale, (2). The study discusses behavioral intention variables which are influenced by only two variable (perceived value and user satisfaction). Meanwhile, suggestions for further research: (1). Collection of research data can be collected from other forms such as interviews that can further explore the subject's answers, (2). To examine other variables such as the level of trust and service quality dimensions that have an influence on the behavioral intention.

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In 2022, the global online healthcare market was valued at USD 211.0 billion and is projected to grow at a compound annual growth rate (CAGR) of 18.6% from 2023 to 2030. This development of the healthcare industry should encourage healthcare facilities both in person and online to provide satisfying and valued healthcare.(Rashid, 2023) Satisfaction and better value would result in behavioral intention, which is one of the main goals for a business to achieve sustainability. Although the acceptance of telemedicine since pandemic era has been widely accepted by society, the level of benefit of telemedicine depends on several important factors. Previous studies have shown that the attitudes of telemedicine users are significantly influenced by external and internal factors. These factors then influence user attitudes which can trigger telemedicine usage behavior (Goyal et al., 2022; Rho et al., 2015). In this regard, healthcare providers should not only wait and expect patient to use their services but to look out these factors and determine which factors influence telemedicine usage behavior the most.

RESEARCH METHOD

This research is a hypothesis testing study with a cross-sectional design method based on previous research written by several researchers, namely (Goyal et al., 2022; Nutthaporn et al., 2015; Zhang et al., 2017). Data was taken from October 2022 to March 2023. The type of data used is primary data taken directly from the Google form questionnaire. The unit of analysis is in the form of individuals and data is taken using purposive sampling totaling 180 respondents. Validity and reliability tests have been carried out to test the accuracy of using the questionnaire. The results of the data were analyzed using SPSS version 25 to test each variable and SEM with the AMOS program version 21 to analyze the influence between variables either directly or indirectly. Measuring the level of influence of the model was carried out by the Goodness of Fit test and after that the hypothesis testing was carried out.

Behavioral intention is a condition when consumers or service recipients have the urge or intention to buy or use an item or service again and/or voluntarily tell the superiority of the product or service to another person or party (Kotler et al., 2016). This variable is positively influenced by perceived value and user experience (user satisfaction). Perceived value is the perception of service recipients' assessment of the level of acceptance, support, and use of telemedicine to significantly

improve clinical outcomes of care compared to the next best alternative (offline health services) (Han et al., 2019; Kahn et al., 2019). User satisfaction is a patient's psychological condition that involves both good and bad responses to experiences that have been felt when conducting health consultations (Wu et al., 2016). In this study, the conceptual framework contains the assumption that perceived usefulness, perceived risk and offline consultation habit affect perceived value, user satisfaction and behavioral intention. The following is the conceptual framework for this study:

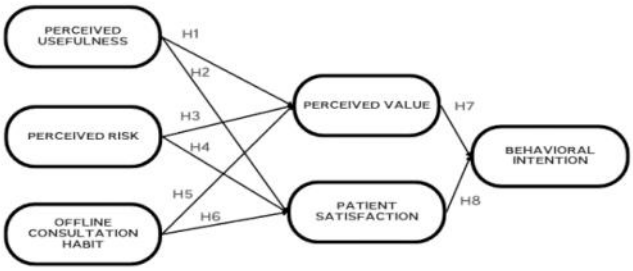

Figure 1. Conceptual Model

RESULTS AND DISCUSSIONS

Hypothesis Testing

Hypothesis testing was carried out on eight hypotheses using an error tolerance limit of 5% (α=0.05) on the basis of decision making if the P-Value <0.05 illustrates that H0 is rejected and H1 is supported, whereas if the P-Value is ≥ 0.05 indicates that H0 is supported and H1 is rejected

Table 1. Hypothesis testing result

Hypothesis	Est.	p-value	Result
H1: Perceived usefulness has a significant positive effect on perceived value.	0,607	0,000	Supported
H2: Perceived usefulness has a significant positive effect on user satisfaction.	0,431	0,000	Supported
H3: Perceived risk has a significant negative effect on perceived value.	0,009	0,842	Not Supported
H4: Perceived risk has a significant negative effect on user satisfaction.	-0,154	0,010	Supported
H5: Offline consultation habit has a significant negative effect on perceived value.	-,0193	0,001	Supported
H6: Offline consultation habit has a significant negative effect on user satisfaction.	-0,184	0,019	Supported
H7: Perceived value has a significant positive effect on behavioral intention.	0,535	0,000	Supported
H8: User satisfaction has a significant positive effect on behavioral intention.	0,733	0,000	Supported

Hypothesis Analysis

H1. Perceived usefulness has a significantly positive effect on perceived value.
The results of the analysis show that the H1 is supported, whereas the perceived usefulness variable significantly has a positive influence on the perceived value variable. This shows that the more telemedicine users find it easy to obtain healing and health, they will feel an increase in health standards and the easier finding information from doctors, the user will find telemedicine very helpful and useful both in terms of costs, risks, benefits, compared to going to visit homes. hospital or clinic. The results of the research analysis are consistent with previous studies where individual perceptions of the benefits of telemedicine will influence the perceived value of using telemedicine itself. The greater the perception of the benefits received by patients in using telemedicine, the higher the perceived value of telemedicine in the eyes of patients (Bian et al., 2023; Chairina, 2021; Esmaeilzadeh, 2018; Goyal et al., 2022; Ye et al., 2022).

H2. Perceived usefulness has a significant positive effect on user satisfaction.
The results of the analysis show that the H2 is supported, whereas the perceived usefulness variable significantly has a positive effect on the user satisfaction variable. This shows that the more telemedicine users find it easy to obtain health, they will feel an increased in health standards and the easier to obtain information from doctors, the user will feel satisfied and comfortable in using telemedicine services because of the fewer obstacles and risks. This finding is consistent with previous research which stated that individual perceptions of the benefits of telemedicine affect individual satisfaction after using it (Bian et al., 2023; Dong et al., 2017; Y. Li & Shang, 2020; Lu et al., 2023). The greater the benefits that patients get when using telemedicine, the higher the level of patient satisfaction in using telemedicine.

Research by Dash, on telemedicine studies shows that there is a significant influence of perceived usefulness variables on individual intentions to adopt telemedicine directly. Individuals who experience great benefits from using telemedicine will immediately have the intention to reuse telemedicine (Dash et al., 2021).

H3. Perceived risk does not have a significant negative effect on perceived value.
The results of the analysis show that the third hypothesis test is not supported, whereas the perceived risk variable has no influence on the perceived value variable. This shows that there is no relationship between insecurity due to the risk of leaking privacy data, insecurity due to misuse of information, and insecurity due to transparent information about user feelings in using telemedicine which is helpful and useful both in terms of costs, risks, benefits, compared to go to a hospital or clinic. This finding is different from previous studies which examined the effect of perceived risk variables on perceived value and found that perceived risk has a significant effect on perceived value (Esmaeilzadeh, 2018; Habibi & Ariffin, 2019; Lu et al., 2023; Naami et al., 2017; Tzavlopoulos et al., 2019; Yan et al., 2021)

In telemedicine, it means that the patient's perceived risk of using telemedicine does not affect the level of perception of the overall value of telemedicine. This can be due to the experience and response from telemedicine users who have never experienced losses due to malicious applications. In addition, this increasingly advanced era also strengthens both the system and the user's view of a secure system. In several other studies, the variable perceived risk is associated with the variable consumer trust and this relationship can be 2-way in which perceived risk negatively influences and is influenced by trust (Bashir & Madhavaiah, 2015; Goyal et al., 2022). In the aspect of telemedicine, patients can directly have a level of trust and reduce the perceived risk of using telemedicine. And conversely, patients can first have a level of risk perception and lower the level of trust.

H4. Perceived risk has a significant negative effect on user satisfaction.
The results of the analysis show that the H4 is supported, whereas the perceived risk variable significantly has a positive effect on the user satisfaction variable. This shows that the insecurity of users because of the risk of leaking privacy data, the insecurity about misuse of information, and the insecurity because other people can see their information, will cause the user to feel dissatisfied and uncomfortable in using telemedicine services. This finding is corresponded with previous studies that analyzed the relationship between the two variables. These results indicate that the perceived risk of telemedicine can also affect patient satisfaction in carrying out care (Bian et al., 2023; Tzavlopoulos et al., 2019).

Several studies have examined the direct relationship between perceived risk and purchase intention and research has found research results where the perceived risk has a significant influence on purchase intention. The direct relationship of these two variables indicates that individual risk perception is one of the direct factors that can influence intention to reuse (Ben Arfi et al., 2021; W. Li et al., 2023a). Meanwhile, there is 1 study which shows the results of the perceived risk variable does not have a significant effect on purchase intention (Ventre & Kolbe, 2020).

H5. Offline consultation habit has a significant negative effect on perceived value.
The results of the analysis show that H5 is supported, whereas the offline consultation habit has a significant negative effect on the perceived value. This hypothesis indicates that the greater the user's intention, mindset and habits to visit directly health care facilities, the less likely user will feel the benefits of telemedicine. This finding is in accordance with previous studies which analyzed the relationship between medication habits and patient value perceptions directly (Dong et al., 2017; Goyal et al., 2022). Patients who have a habit of using health facilities directly will have a lower perceived value of telemedicine than people who don't have the habit. More specifically, the habits of people in carrying out treatments vary and are influenced by internal factors from the individual. This is in a different direction from Ye's research where this study analyzes the doctor-patient interaction in telemedicine and the habit of seeking treatment directly at health facilities. The results showed a significant effect of interactions in telemedicine on the desire to seek treatment directly (Ye et al., 2022).

H6. Offline consultation habit has a significant negative effect on user satisfaction.
The results of the analysis show that H6 is supported, whereas the offline consultation habit has a significant negative effect on user satisfaction. Significantly, this shows that the greater the intention, mindset and habits of users to visit health care facilities, the more likely user will feel dissatisfaction and discomfort when using telemedicine services. This finding is consistent with Goyal and Zhang's research where patient behavior in seeking treatment is will directly reduce the level of patient satisfaction when using telemedicine facilities (Goyal et al., 2022; Zhang et al., 2017) . This can be caused by habits that create an expectation of a treatment, where this expectation can be in the form of direct interaction with medical personnel or expectations of contact when providing care. These things can come from the psychological needs of patients who require assurance from medical professionals.

H7. Perceived value has a significant positive effect on behavioral intention.
The results of the analysis show that H7 is supported, whereas the perceived value significantly has a positive influence on the behavioral intention. This shows that users who experience more advantages than disadvantages and feel the benefits and help from the existence of telemedicine, will have consideration and the possibility to use telemedicine at the next opportunity. This finding is consistent with other studies where the perceived value of consumers directly determines the intention to use products/services repeatedly (Esmaeilzadeh, 2018; W. Li et al., 2023b, 2023a; Naami et al., 2017; Tam, 2012; Yu et al., 2017; Yuen et al., 2019).

Research with another relationship direction by Tam also shows that there is a significant influence between perceived value variables on customer satisfaction (Tam, 2012). The use of telemedicine features in Ye's research shows that perceived value is significantly influenced by the variables perceived benefit, individual subjectivity, personal experience and perceived trust (Ye et al., 2022).

H8. User satisfaction has a significant positive effect on behavioral intention.
The results of the analysis show that the H8 is supported, whereas the user satisfaction has a significant positive effect on the behavioral intention. The results of this hypothesis test indicate that users who feel comfortable and satisfied when using telemedicine will have considerations and choices to use telemedicine in the future. The results of this accepted hypothesis are in accordance with other studies (Faqih, 2016; Y. Li & Shang, 2020; Lu et al., 2023; Nutthaporn et al., 2015; Tam, 2012). Patients who get satisfaction after carrying out telemedicine treatment will have the desire to reuse services when needed. Patients will indirectly get an expectation of treatment after completion.

CONCLUSION

In this study, the relationship between perceived usefulness, perceived risk, offline consultation, perceived value and user satisfaction was analyzed in relation with behavioral intention of telemedicine users. Research has been carried out and the following conclusions can be drawn: (1). perceived usefulness positively and significantly influences perceived value, (2). perceived usefulness positively and significantly influences user satisfaction, (3). perceived risk does not affect perceived value, (4). perceived risk negatively and significantly affects user satisfaction, (5). offline consultation habit negatively and significantly affects perceived value, (6). offline consultation habit negatively and significantly affects user satisfaction, (7). perceived value positively and significantly influences behavioral intention, (8). user satisfaction positively and significantly influences behavioral intention. This research has been carried out, analyzed the relationship between variables and provided useful information from questionnaire to be implicated which include: (1). Telemedicine service providers could provide health workers for consultations who operate 24 hours a day according to their schedule so that they can provide assurance for patients to obtain recovery at any time, (2). Telemedicine service providers to be able to provide certainty regarding consultations that are carried out effectively, namely with a fast flow of message replies, (3). Hospital management to be able to create online health facilities that are integrated with offline health facilities so that the two facilities can help each other in their role of providing healing for patients. This research has several limitations, including: (1). Variables are only measured using scaled answer based on likert scale, (2). The study discusses behavioral intention variables which are influenced by only two variable (perceived value and user satisfaction). Meanwhile, suggestions for further research: (1). Collection of research data can be collected from other forms such as interviews that can further explore the subject's answers, (2). To examine other variables such as the level of trust and service quality dimensions that have an influence on the behavioral intention.

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