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Purchase Intention of Potential Hypertension Patients on Innovative Personal Health Assistant Services: A Case of A Private Hospital in Bangkok

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Abstract

Purpose: This study examines the significant impact of brand image, perceived service quality, patient satisfaction, and word of mouth on purchase intention on innovative personal health assistant services of patients with the potential to have hypertension. **Research design, data, and methodology:** The data collection was to distribute questionnaires to 500 qualified participants. The researcher applied probability and nonprobability sampling techniques, including purposive, stratified random, and convenience samplings. Before the data collection, content validity was reserved by the index of item objective congruence (IOC), and Cronbach's Alpha approved a pilot study of 50 samples. The data were analyzed using descriptive statistics, confirmatory factor analysis (CFA), and structural equation modeling (SEM) methodology. **Results:** The findings show that three out of five hypotheses are confirmed. Perceived service quality has a significant impact on patient satisfaction. Patient satisfaction has a significant impact on word of mouth. Additionally, word of mouth significantly impacts purchase intention. Nevertheless, this study found a non-support relationship between brand image and perceived service quality and between the word of the mount and brand image**. Conclusions:** For academic researchers, this study can provide the importance of critical factors which can improve the understanding of purchase intention behavior of the health-related technology.

Keywords: Perceived Service Quality, Word of Mouth, Patient Satisfaction, Purchase Intention, Health Assistant Services

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Private hospitals have been classified into three subgroups, along with the number of beds. Evaluating the good proxy presents the health services range that each hospital provides; large, medium, and small. Large hospitals are classified as having over 249 beds. Middle to high-income is the primary group in the central region of Thailand and Bangkok. Thus, large hospitals comprise about 90%. Large private hospitals are around 22 in Thailand, with 6% of all private hospitals in Thailand. There are 7,162 beds, and of beds in private hospitals in Thailand is around 19.9%. Medium-size hospitals are classified as having around 31 to 249 beds, with 255 hospitals in this subgroup or 67.5%, offering 27,069 beds or 75.2%. Small hospitals have around 1-30 beds. Small hospitals have around 101 in Thailand or

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26.7% combined, providing 1,766 beds or 4.9%. (Ninkitsaranont, 2020).

Digital technology is key to enhancing economic growth and a sustainable society in Thailand. In particular, digital technology can equip Thailand to face challenges, whereas innovation can offer more economic and social development opportunities. Digital technology allows the country to accomplish sustainable development goals. Therefore, through the Ministry of Digital Economy and Society, the Royal Thai Government is introducing a Digital Economy and Society Development Plan to respond to the country's competitiveness for the digital economy and society enhancement. In the development plan, every sector must transform its businesses to improve public administration efficiency and people's quality of life (Ministry of Digital Economy and Society, 2016).

Personal health assistant services are the compilation of system technologies, including wearable devices, mobile applications, etc., which have been viewed as a novel approach. Healthcare professionals tend to embrace the significance of digitalization to find a new way to serve the best and satisfy the need of their patients during the world's pandemic. Consequently, blood pressure tracking and home health monitors are the best examples to help patients closely monitor bodily functions without needles, appointments, and invasive processes.

Most patients are familiar with smartphones, smartwatches, and one or two personal health monitoring devices that sync data with these healthcare gadgets. From all the pain points mentioned above, the leading private hospital started studying and deploying "Wearable Health Devices (WHDs)" to assist consumers/patients in monitoring better their health condition in various activities from fitness for regular health-checkup to a medical level offering much larger data to clinicians with a probability for earlier diagnostic and guidance of treatment. The revolution of technology in the miniaturization of electronic devices is igniting a more reliable designed system.

The study aims to produce the findings to fill the innovation and purchase intention gap of digital healthcare technology, which could remarkably benefit patients in tracking and monitoring their health conditions. The study of innovative personal health assistant services is very limited for academic researchers. Hence, this study can provide the importance of critical factors which can improve the understanding of purchase intention behavior of health-related technology. In addition, few studies have explored hypertension and potential hypertension patients in the different generations (Generation Y, Generation X, Baby Boomers, and Senior Citizens). Therefore, this study pioneers the sample group to provide insight into customer demographic, which has not yet widely examined.

2. Literature Review

2.1 Brand Image

Consumers' experience is associated with a brand image, leading to mental and behavioral responses. Brand image is a cognitive assessment of an overall experience linked to the satisfaction derived from a brand owner's activities and performances. A positive attitude toward an organization can create a preference in consumers to choose or purchase a product or service because they are confident that the particular brand would serve their satisfaction and performance (Moore, 1981).

There was evidence of a significant relationship between brand image and perceived service quality and other variables (Cham & Easvaralingam, 2012; Kayaman & Arasli, 2007; Naik et al., 2010). Cham et al. (2015) postulated the support association between brand image and perceived service quality in a healthcare context, emphasizing client and technical quality. Grönroos (2000) supported that the strong effect on the brand image could predict service delivery to customers. Nonetheless, Cham et al. (2021) raised that the healthcare industry has not largely examined the effect between brand image and perceived service quality. Based on the previous research, a hypothesis is proposed:

H1: Brand image has a significant impact on perceived service quality.

2.2 Perceived Service Quality

In general, many scholars acknowledge perceived service quality to conceptualize the consumer's measurement of the match or exceptional quality of service received during engaging product or service (Parasuraman et al., 1988). The assessment of customers can be derived from actual performance. Snoj et al. (2004) defined perceived service quality as "how well the client measurement of the overall service." It contains a cognitive comparison of price and product or service quality. In addition, hospital service quality is the medical treatment and other components such as atmosphere, waiting time, cashiers, and vice versa (Azizan & Mohamed, 2013).

According to Badri et al. (2009), the examination of a significant impact between perceived service quality and patient satisfaction was approved among patients at United Arab Emirates public hospitals. Per the findings of Azizan and Mohamed (2013), perceived service quality showed the strongest effect on patient satisfaction in the study of the public hospital in Pahang, Malaysia. Accordingly, the research adopted the relationship between perceived service quality (PSQ) and patient satisfaction (PS) into a conceptual framework. Additionally, many evidences lead to the

conclusion of a relationship between perceived service quality and patient satisfaction in health care service. Thus, a hypothesis is suggested:
H2: Perceived service quality has a significant impact on patient satisfaction.

2.3 Patient Satisfaction

Patient satisfaction is "an interactive procedure that reflects the evaluation of patients related to their overall medical service experience." The level of patient satisfaction is important for healthcare service providers to maintain a good relationship with their patients and to ensure their satisfaction and become lifetime patients. Additionally, Cham et al. (2015) noted that the satisfaction of patients is a key indicator for measuring of strengths and weaknesses of the firm, as well as its financial performance. Patient satisfaction is a key element used to develop the overall service of the healthcare organization, which can build customer loyalty, impression, and word-of-mouth (Jandavath & Byram, 2016).

Due to patient satisfaction being an essential element of healthcare services, positive or negative attitudes towards the healthcare experience would lead to their satisfaction and consideration to spread either positive or negative word of mouth (Jandavath & Byram, 2016; Kashif et al., 2016). Word of mount plays a key role in personal and electronic communication nowadays. It enhances the referral of the product or service of a healthcare provider between patients and their peers. Patient satisfaction significantly impacts word of mouth as a patient would transmit their opinion and feedback to other parties, as supported by many researchers (Dicky et al., 2019; Ruswanti et al., 2020; Siripipatthanakul, 2021). Hence, the researcher adopted these two variables in the research model to propose a hypothesis below:
H3: Patient satisfaction has a significant impact on word of mouth.

2.4 Word of Mouth

Word of mouth (WOM) is "whether customers tell anyone about their experience and how many people are told if a customer engages in word-of-mouth behavior," as explained by Narayandas and Bowman (2001). WOM can be positive or negative, reflecting a customer's product or service recommendation. WOM is determined as a social behavior that can influence the purchasing decision of customers (Anderson & Mittal, 2000). In healthcare studies, patients are not keen to share their health-related information with others (Narayandas & Bowman, 2001).

Cham et al. (2021) emphasized that word of mouth on a brand image is viewed as a social aspect. Silverstone (2005) explained the sociological perspective as the socialization and communication between individuals involving social influence, which is key in reflecting brand image. Marketers are keen to elevate efforts to ensure positive product and service perception among customers by inferring social technologies for better customer experience (Opoku & Akorli, 2009; Riezebos, 2003).

The research model of Lee et al. (2017) hypothesized the significant relationship between word of mouth (WOM) and purchase intention (PI). The results showed that there was no statistical significance among them. However, as the report was produced based on Taiwan and China, the researcher assumed that the different markets would have different results as numerous studies confirmed the significant impact of WOM on PI. Thus, the proposed hypotheses are set:
H4: Word of mount has a significant impact on brand image.
H5: Word of mount has a significant impact on purchase intention.

2.5 Purchase Intention

Abumalloh et al. (2017) added that purchase intention is "a customer's willingness to buy certain products or services," which can be measured by the respondent's perception of buying or using a service. Purchase intention can also refer to repurchase intention, which explains the existing customers' plan to buy the same product or use a service in the future (Tweephoncharoen & Vongurai, 2020). It extends to the reference or suggestion of a customer to other persons to buy products or services (Nuanchaona et al., 2021). Before, during, and after purchase decisions are critical for the decision-making process and attitude toward purchasing (Sosanuy et al., 2021). Purchase intention is determined to be a dependent variable in a consumer's behavior study (Shim et al., 2021). According to Morwitz et al. (2007), purchase intention can be determined for the marketing activation and sales promotions, which is applied to segment customers and further development of sales and marketing strategies.

3. Research Methods and Materials

3.1 Research Framework

The study constructs a conceptual framework based on four previous theoretical models to examine the significant impact of brand image, perceived service quality, patient satisfaction, and word of mouth on purchase intention for innovative personal health assistant services of patients with the potential to have hypertension. The previous studies used are Cham et al. (2021), Azizan and Mohamed (2013), Siripipatthanakul (2021), and Lee et al. (2017), as proposed in Figure 1.

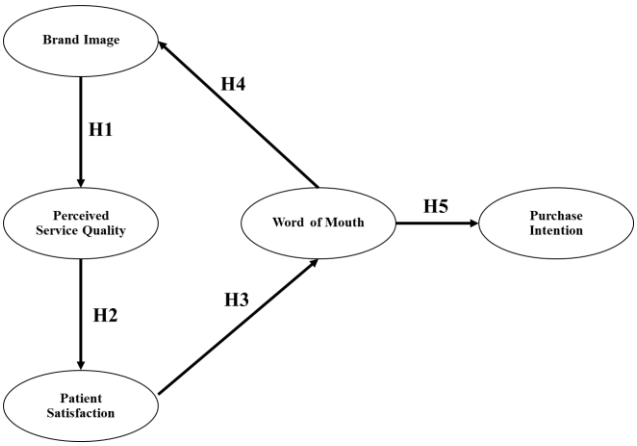

Figure 1: Conceptual Framework

H1: Brand image has a significant impact on perceived service quality.
H2: Perceived service quality has a significant impact on patient satisfaction.
H3: Patient satisfaction has a significant impact on word of mouth.
H4: Word of mount has a significant impact on brand image.
H5: Word of mount has a significant impact on purchase intention.

3.2 Research Methodology

The quantitative research methodology aims to distribute questionnaires to 500 qualified participants. Before the data collection, content validity was reserved by the item objective congruence (IOC) index and Cronbach's Alpha-approved pilot testing of 50 samples. The survey consists of three parts. First, two screening questions are designed: "Are you the hospital patient with hypertension?" and "Are you 40 years old and above?" The second part of the questionnaire examines the influencing factors of purchase intention towards innovative personal health assistant services for hypertension patients of Bumrungrad Hospital. Five-point Likert scale involves Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5). Third, this study explores the demographical profiles, including gender, nationality, age group, and education. The data were analyzed using descriptive statistics, confirmatory factor analysis (CFA), and structural equation modeling (SEM) methodology.

3.3 Validity and Reliability

Validity and reliability are the proof-point of the data quality. There are two phases in the measurement of validity and reliability assessment for this study: before and after the data collection. Item-Objective Congruence (IOC) and Cronbach's Alpha Reliability (CA) were applied before the data collection. In this research, IOC has four experts for content validity. All experts were requested to provide the score via an online format. The final results showed that all 21 items had been reserved at a score of 0.5 and above. As a result, no measuring items are required to be revised. For the pilot test, this study invited 50 participants in this step. Cronbach's Alpha evaluated it for five latent variables, which recommended that the acceptable value of CA's result should be equal to or above 0.70 (Robinson, 2009). The results are that CA's values are within the acceptable measures, including brand image (0.723), perceived service quality (0.837), patient satisfaction (0.806), word of mouth (0.738), and purchase intention (0.818).

3.4 Population and Sample Size

Salman et al. (2015) indicated that hypertension is " a high blood pressure condition when the pressure of the blood caused by the pumping of the heart goes much beyond normal values." Potential hypertension patients are those who have blood pressure of 120-139 and/or 80-89. Thus, the target population of this study is patients with potential of hypertension of Bumrungrad Hospital. Soper (2022) recommended the minimum sample size for SEM to be at least 376 samples. Accordingly, 500 participants who are are with potential of hypertension are an efficient amount to perform SEM.

3.5 Sampling Technique

The researcher applied probability and nonprobability sampling techniques, including purposive, stratified random, and convenience samplings. For purposive sampling, the researcher assessed potential hypertension patients of Bumrungrad Hospital. Stratified random sampling is based on four groups of generations; 40-49 (Generation Y), 50-59 (Generation X), 60-69 (Baby Boomer), and 70 and Up (Senior Citizen), as demonstrated in Table 1. In this research, all subjects were conveniently sampled by distributing electronic questionnaires to the existing BH patients in the target group, interviewing them during a visit, and completing the electronic questionnaires (MS Form).

Table 1: Stratified Random Sampling

Year-Old Range	Total number of Hypertension and Potential to have Hypertension Symptoms Patients	Potential Hypertension Symptoms	Population Size of existing patients with potential Hypertension
Generation Y	7,473	2,641	247
Generation X	7,980	1,856	174
Baby Boomer	6,683	658	62
Senior Citizen	6,822	189	17
Total	**28,958**	**5,344**	**500**

Source: Constructed by Author (Based on the data from Bumrungrad International Hospital).

Table 2: Demographic Profile

Demographic and General Data (n=500)		Frequency	Percentage
Gender	Male	229	45.8%
	Female	271	54.2%
Nationality	Thai	383	76.6%
	Non-Thai	117	23.4%
Age	40-49 Years Old	247	49.4%
	50-59 Years Old	174	34.8%
	60-69 Years Old	62	12.4%
	70 Years Old and Up	17	3.4%
Education	Below Bachelor's Degree	58	11.6%
	Bachelor's degree	305	61.0%
	Master's degree	88	17.6%
	Doctor's degree	49	9.8%

4. Results and Discussion

4.1 Demographic Information

From Table 2, the demographic results from 500 participants show that males are 45.8 percent and females are 54.2 percent. Thai patients are 76.6 percent, and non-Thai patients are 23.4 percent. Most respondents are 40-49 years old at 49.4 percent, 50-59 years old at 34.8 percent, 60-69 years old at 12.4 percent, and 70 years old and up at 3.4 percent. Bachelor's degree takes the largest group of 61 percent, and only 9.8 percent is doctorates.

4.2 Confirmatory Factor Analysis (CFA)

A variable is considered an indicator to evaluate the measurement error in the model. Factor loadings, coefficient values, and goodness of fit indices can measure the degree of an indicator. Hair et al. (2006) suggested the validation of CFA's results, determining factor loadings are equal to or above 0.50 and a p-value lower than 0.05. For five latent variables, Cronbach's Alpha recommended that the acceptable value of CA's result be equal to or above 0.70 (Robinson, 2009). Additionally, Fornell and Larcker (1981) indicated that the Composite Reliability (CR) is greater than the cut-off points of 0.6, and Average Variance Extracted (AVE) is higher than the cut-off point of 0.4, as demonstrated in Table 3.

Table 3: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Brand Image (BI)	(Cham et al., 2021)	3	0.816	0.700-0.825	0.818	0.601
Perceived Service Quality (PSQ)	(Cham et al., 2021)	5	0.809	0.631-0.723	0.809	0.459
Patient Satisfaction (PS)	(Leppäniemi et al., 2016)	5	0.831	0.641-0.765	0.832	0.499
Word of mount (WOM)	(Cham et al., 2021)	5	0.820	0.657-0.735	0.821	0.479
Purchase Intention (PI)	(Schivinski & Dabrowski, 2014)	3	0.885	0.827-0.879	0.886	0.721

CFA is a multivariate process in the measurement model assessment by the goodness of fit measures. In Table 4, the goodness of fit indices of the measurement model in the CFA is an acceptable fit, including CMIN/DF = 1.512, GFI = 0.950, AGFI = 0.936, NFI = 0.940, CFI = 0.979, TLI = 0.975, and RMSEA = 0.032.

Table 4: Goodness of Fit for Measurement Model

Index	Acceptable Values	Statistical Values
CMIN/DF	< 3.00 (Hair et al., 2006)	270.718/179 = 1.512
GFI	≥ 0.90 (Hair et al., 2006)	0.950
AGFI	≥ 0.90 (Hair et al., 2006)	0.936
NFI	≥ 0.90 (Arbuckle, 1995)	0.940
CFI	≥ 0.90 (Hair et al., 2006)	0.979
TLI	≥ 0.90 (Hair et al., 2006)	0.975
RMSEA	< 0.05 (Browne & Cudeck, 1993)	0.032
Model summary		**Acceptable Model Fit**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index, and RMSEA = Root mean square error of approximation
Source: Created by the author.

Discriminant validity means that "a latent variable can account for more variance in the observed variables associated with it than a) measurement error or similar external, unmeasured influences; or b) other constructs

within the conceptual framework" (Fornell & Larcker, 1981). According to Table 5, the value of discriminant validity is larger than all inter-construct/factor correlations. Therefore, the discriminant validity is supportive. The convergent and discriminant validity were proved. Accordingly, the evidence is sufficient for establishing construct validity.

Table 5: Discriminant Validity

	WOM	BI	PSQ	PS	PI
WOM	**0.692**				
BI	-0.070	**0.775**			
PSQ	0.602	-0.024	**0.678**		
PS	0.562	-0.016	0.395	**0.706**	
PI	0.661	0.094	0.602	0.375	**0.849**

Note: The diagonally listed value is the AVE square roots of the variables
Source: Created by the author.

4.3 Structural Equation Model (SEM)

The structural model is "the measurement of a multivariate statistical framework in structural equation modeling (SEM)." The model determines the correlation between direct and indirect observed (latent) variables. Based on Table 6, the results show the structural model fit in this study with CMIN/DF = 2.212, GFI = 0.930, AGFI = 0.912, NFI = 0.909, CFI = 0.948, TLI = 0.940, and RMSEA = 0.049.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable Values	Statistical Values
CMIN/DF	< 3.00 (Hair et al., 2006)	407.046/184 = 2.212
GFI	≥ 0.90 (Hair et al., 2006)	0.930
AGFI	≥ 0.90 (Hair et al., 2006)	0.912
NFI	≥ 0.90 (Arbuckle, 1995)	0.909
CFI	≥ 0.90 (Hair et al., 2006)	0.948
TLI	≥ 0.90 (Hair et al., 2006)	0.940
RMSEA	< 0.05 (Browne & Cudeck, 1993)	0.049
Model summary		**Acceptable Model Fit**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index, and RMSEA = Root mean square error of approximation
Source: Created by the author.

4.4 Research Hypothesis Testing Result

This research analyzes the relationships between correlated constructs to classify genetic factors as independent observations, identifying the level of a significant relationship p-value <0.05 and its effect, determined by the standardized path coefficient value (β) and t-value.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-value	Result
H1: BI→PSQ	-0.016	-0.272	Not Supported
H2: PSQ→PS	0.451	7.724*	Supported
H3: PS→WOM	0.598	9.745*	Supported
H4: WOM→BI	-0.039	-0.700	Not Supported
H5: WOM→PI	0.663	11.644*	Supported

Note: * p<0.05

According to Table 7, the findings show that three out of five hypotheses are confirmed, which can be discussed as follows:

H1 fails to prove that brand image significantly impacts perceived service quality, reflected in the standardized path coefficient value of -0.016 (t-value = -0.272). The results deny the previous claim that there was evidence of a significant relationship between brand image and perceived service quality and some other variables (Cham & Easvaralingam, 2012; Kayaman & Arasli, 2007; Naik et al., 2010).

H2 reflects a standardized path coefficient of 0.451 (t-value = 7.724), which supports the relationship between perceived quality service and patient satisfaction. Azizan and Mohamed (2013) studied that perceived service quality has the strongest effect on patient satisfaction in public hospitals in Pahang, Malaysia.

H3 confirms that patient satisfaction significantly impacts word of mouth, revealing the standardized path coefficient value of 0.598 (t-value = 9.745). The results explain that patient satisfaction is essential to dictate positive or negative word of mouth toward the healthcare experience (Jandavath & Byram, 2016; Kashif et al., 2016).

H4 cannot determine the significant impact of the word mount and brand image, representing a standardized path coefficient value of -0.039 (t-value = -0.007). Word of mouth is the strong determinant in predicting the brand image in this study.

H5 proves the strong significant relationship between word of mount and purchase intention, resulting in a standardized path coefficient of 0.663 (t-value = 11.644). In order to deliver those qualities to prospective customers, trustworthy sources significantly affect customers' purchase intention. Word of mouth plays a strong motivation in driving willingness to buy a particular product or service of customers (Bickart & Schindler, 2001).

5. Conclusions and Recommendation

5.1 Conclusion and Discussion

This research aims to determine the significant impact of brand image, perceived service quality, patient satisfaction,

and word of mouth on the purchase intention of innovative personal health assistant services among potential hypertension patients of Bumrungrad Hospital. The findings show that three out of five hypotheses are confirmed. Perceived service quality has a significant impact on patient satisfaction. Patient satisfaction has a significant impact on word of mouth. Additionally, word of mouth significantly impacts purchase intention. Nevertheless, this study found a non-support relationship between brand image and perceived service quality and between the word of the mount and brand image.

Based on the results, brand image has no significant impact on perceived service quality. Many scholars proved that brand image predicts perceived service quality (Cham & Easvaralingam, 2012; Kayaman & Arasli, 2007; Naik et al., 2010). However, this study opposed such evidence because perceived service quality could be derived stronger from other factors requiring further investigation. Perceived service quality is an influential factor in patient satisfaction. Badri et al. (2009) studied the patients at the United Arab Emirates public hospitals and supported such a claim. Patient satisfaction has a significant impact on word of mouth. Word of mount plays a key role in communication, both personally or electronically, which is usually enhanced by patient experience and satisfaction (Dicky et al., 2019; Ruswanti et al., 2020; Siripipatthanakul, 2021).

Word of mouth is evidenced to have a significant impact on purchase intention rather than on the brand image. Abumalloh et al. (2017) pointed out that purchase intention, as a customer's willingness to buy certain products or services, can be measured by the respondent's perception of buying a product or using a service and referral from others via word of mouth. However, without the experience and assessment of patients, word of mouth is insufficient to provide a key validator for a patient to relate brand image in this study. Thus, it cannot determine the significant impact of the word mount and brand image, which is against the earlier findings of several studies (Opoku & Akorli, 2009; Riezebos, 2003).

5.2 Recommendation

The recommendations can be implied to both academic researchers and business practitioners in the healthcare industry. For academic researchers, this study can provide the importance of critical factors which can improve the understanding of purchase intention behavior of health-related technology. The researchers can strengthen the study of significant factors in other settings or industries. Moreover, perceived service quality has five dimensions to investigate further: tangibility, reliability, responsiveness, assurance, and empathy. Additionally, a qualitative study should be focused on an in-depth analysis of the data and results.

For business practitioners, purchase intention is a major goal or leads to evolving to the actual purchase and customer retention. Perceived service quality has a significant impact on patient satisfaction. Therefore, healthcare service providers should put the top priority on improving and maintaining the highest service quality. Through various digital technology, innovative personal health assistant services should be add-on service tools that give patients accurate data to describe symptoms and revisit a hospital for further investigation and diagnosis. Patient satisfaction can be varied to individual needs. Potential hypertension patients are at risk of becoming hypertensive. Therefore, they require a self-care plan to prevent them from such diseases. Innovative personal health assistant services can be a solution for them to keep monitoring their health and close contact with a hospital. High satisfied patients expect to receive good care and follow-up in order to spread positive word of mouth to their relatives and society.

5.3 Limitation and Further Study

This study involves several limitations. Firstly, this research only assessed potential hypertension patients of a private hospital. Hence, the different groups of patients and different types of a hospital would produce different findings. Secondly, the conceptual framework is limited to five variables: brand image, perceived service quality, patient satisfaction, word of mouth, and purchase intention. Therefore, future studies can extend the conceptual framework with more variables like trust and social influence. Thirdly, the future study should extend to the qualitative or mix-method methodology to better interpret the findings.

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