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Factors affecting the use of mhealth home workout – no equipment application in indonesia with an intention to use approach

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ABSTRACT

This study's objective is to identify the predictors of usage intention among Indonesia's Generation Z. Mobile health (mHealth) can contribute to Indonesia's public health system. A sample of 375 Generation Z individuals who own a smartphone and have information about the mHealth application "Home Workout – No Equipment" was collected via an online questionnaire. The central emphasis of this research concerns a range of substantial variables as outlined in the Unified Theory of Acceptance and Use of Technology (UTAUT). Utilizing two-step structural equation modeling, the hypothesized relationships were examined, and the measurement model was validated. Significant and positive influences on attitude are exerted by performance expectancy, facilitating conditions, and social influence; on the other hand, effort expectancy exerts a substantial and negative impact. The impact of attitude on usage intention is substantial and favorable. Technophobia does not significantly moderate the relationship between effort expectancy and performance expectancy and attitude. By developing a model that integrates attitude variables as predictors of usage intention, this study addresses a research gap by establishing a framework for assessing Generation Z's intention to use mHealth applications in Indonesia. This research can help application developers and health service providers better understand the younger generation's preferences and needs and support efforts to improve public health in Indonesia.

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1. INTRODUCTION

Mobile health (mHealth) can play a role in improving the public health care system with various methods, such as avoiding adverse health conditions before they occur (with a focus on prevention and health care) by promoting healthy eating patterns, active lifestyles, increasing awareness and understanding of health, as well as improving mental well-being (Aydin, 2023). In 2025, it is predicted that the global mHealth application market will reach an estimated growth of up to 111.1 billion USD

(www.zionmarketresearch.com, 2019). The “Home Workout – No Equipment” application is a mHealth application that provides independent exercise guidance, helps users to record their routines, and reminds them to adhere to a pre-set exercise schedule. This application, which was first released to the Google Play Store on November 8, 2017, is the fifth most popular on the Google Play Store for the health and fitness category as of April 5, 2023, and has risen to fourth position as of June 7, 2023 (Google Play, 2023).

In 2019, Indonesia was recorded as having a healthy life expectancy at birth of 62.8 years, slightly lower than the global average of 63.7 years (World Health Organization, 2023). In addition, the country's demographic landscape is increasingly dominated by a young population, with 44,653.9 million people falling in the 15-24-year age range, which is the age range for Generation Z (Badan Pusat Statistik, 2023). These factors collectively position Indonesia as an opportune market for mHealth initiatives, particularly in the realm of promoting home-based fitness through digital platforms, aligning with Sustainable Development Goal 3: Good Health and Well-Being set by the United Nations.

Aydin, (2023) asserts that promoting healthy lifestyles from an early age may positively impact the continuity of the healthcare system. This concept aligns seamlessly with Target 3.4 of SDG 3, which aims to reduce premature mortality from non-communicable diseases by one-third through prevention and treatment, including promoting mental health and well-being. Specifically, the utilization of home workout apps within the broader framework of mHealth can play a role in achieving this target by encouraging regular physical activity and promoting mental well-being.

However, the practical implications of this research become apparent when considering that even younger generations skilled in digital technology may not feel the need to use preventive health apps because their health condition is generally good (Aydin, 2023). Understanding the determinants influencing the intention of Generation Z individuals in Indonesia to engage with mHealth applications, as explored in this study, is crucial for tailoring interventions and strategies.

Moreover, integrating the findings of this research into the broader context of SDG 3 emphasizes the potential contribution of mHealth initiatives, including home workout apps, in achieving global health objectives. While not explicitly stated in the initial SDG 3 targets, promoting physical activity and well-being through digital platforms can be considered a part of the broader agenda for improving health and well-being for all. Policymakers and healthcare professionals can use insights from this study to develop targeted initiatives that resonate with Generation Z's specific needs and preferences in the context of home-based fitness, thereby contributing to the overarching goal of promoting health and well-being. The emergence of differences in generational groups is caused by historical events, accompanied by developments over time and technology, which are constantly moving forward (Pebrianti & Miranda, 2023).

Due to the novelty of mHealth behavior adoption in the marketing domain, including highly advanced subjects in information and communication technology (ICT) and wireless communications, there is no universally applicable logic or pattern governing the adoption of mobile technology (Alam et al., 2020). Cultural variations and culturally-related conduct influence the variability of consumer behavioral intentions (Dwivedi et al., 2016). Given the circumstances, it is imperative to undertake thorough research on the fundamental elements that adequately elucidate consumer behavioral intention and forecast the progression of such an adoption process (Sabbir et al., 2020).

The Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Venkatesh et al., (2012), can be utilized to gain insight into this subject. UTAUT provides an all-encompassing framework that facilitates the understanding of technology's integration and application. Numerous mHealth-related investigations have implemented UTAUT. By employing facilitating conditions, social influence, perceived reliability, price value, performance expectancy, and effort expectancy, Alam et al., (2020) forecast

behavioral intention. Sabbir et al., (2020) predict behavioral intention by utilizing the following variables: effort expectancy, performance expectancy, facilitating conditions, social influence, perceived risk, perceived trust, personal innovativeness, and health literacy. Utilizing performance expectancy, effort expectancy, social influence, privacy risk, trust, e-Health literacy, and enjoyment, Aydin, (2023) forecasts the behavioral intention of Generation Z.

Performance expectancy, effort expectancy, facilitating conditions, social influence, attitude, and usage intention are the focal points of this study. By utilizing UTAUT in the context of the "Home Workout - No Equipment" application, the impact of technophobia and technology adoption on the motivation of young individuals in Indonesia to utilize the application can be better understood. The model structure provides a firm foundation that enables researchers to comprehend and explain the impact of external variables on behavioral intentions and actual usage (Cavdar Aksoy et al., 2020). Gaining insight into the determinants that impact the adoption of mobile health (mHealth) applications can provide valuable knowledge for the development of public health campaigns and marketing tactics that seek to enhance the conditions of Indonesia's youth.

Performance expectancy quantifies the degree to which an individual is confident that by utilizing the system, there will be a corresponding improvement in work outcomes (Cavdar Aksoy et al., 2020). The fundamental concept underlying performance expectancy is the degree of perceived advantage that individuals associate with the utilization of technology for a specific undertaking (Venkatesh et al., 2012). In line with the concepts of relative advantage and perceived usefulness as defined in the innovation diffusion theory (IDT) and technology acceptance model (TAM), respectively (Lin, 2022). According to the research of Hsiao & Tang, (2014), perceived usefulness has a significant impact on behavioral intention. According to Mortimer et al., (2015), the projection of intention to use is significantly influenced by perceived usefulness. As evidenced by their research, Deb & Lomo-David, (2014) discovered that perceived usefulness has a significant and positive correlation with attitude. According to Reyes-Mercado, (2018), the intention to use is positively influenced by performance expectancy. Additionally, Ferreira Barbosa et al., (2022) discovered that intention to use fitness applications is positively influenced by performance expectancy.

The correlation between performance expectancy and behavioral intention across diverse industries has been the subject of numerous studies. Gupta et al., (2019); Le, (2022); Widyanto et al., (2022); and Zhao & Bacao, (2021) have all discovered that performance expectancy influences behavioral intention for M-payment products in a significant and positive way. Several studies (Giovanis et al., 2019; Raza et al., 2019; Samsudeen et al., 2022; Tan & Leby Lau, 2016; Yaseen et al., 2022) have established that behavioral intention toward M-banking products can be predicted using performance expectancy. Performance expectancy was employed by several studies (Esawe, 2022; Rahi et al., 2019; Saha & Kiran, 2022; Sivathanu, 2019; Tarhini et al., 2016; Wang et al., 2017) to forecast consumer behavioral intention regarding Unified Payment Interface (UPI), Internet Banking, E-wallet, and Digital Payment products. Behavioral intention in Blockchain and Fintech is significantly and positively influenced by performance expectancy (Abu Afifa et al., 2023; Chan et al., 2022; Ferri et al., 2020). According to the findings of Abed, (2018); Dewi et al., (2020); Hanif et al., (2022); and Tak & Panwar, (2017), performance expectancy is a positive and significant predictor of behavioral intention in e-commerce, s-commerce, and mobile shopping. Several studies (Almunawar et al., 2020; Chakraborty et al., 2022; Silva et al., 2022; Wut et al., 2021) have discovered that in the context of online food delivery and ride hailing, performance expectancy has a positive and significant effect on behavioral intention. It has been confirmed by Arif et al., (2018); Gunasinghe et al., (2020); McKeown & Anderson, (2016); Taamneh et al., (2023); and Wong et al., (2012) that performance expectancy positively

influences behavioral intention in e-learning. In the interim, Alam et al., (2020) discovered that behavioral intention in mHealth is substantially and positively influenced by performance expectancy.

There is a paucity of research that investigates the correlation between attitude and performance expectancy. Both Istijanto & Handoko, (2022) as well as Upadhyay et al., (2022) discovered that attitude toward M-payment is substantially and positively influenced by performance expectancy. According to the findings of Buabeng-Andoh & Baah, (2020); Isaias et al., (2017); Lin, (2022); and Sharma et al., (2020), attitudes toward learning management systems, self-service technology, mobile learning, and online travel are all significantly and positively impacted by performance expectancy.

The ease of use of a system by consumers can be assessed using effort expectancy (Cavdar Aksoy et al., 2020). Effort expectancy serves as an indicator of the degree to which consumers are at ease when utilizing technological devices (Venkatesh et al., 2012). Comparable to the concept of perceived ease of use as outlined in TAM or the inverse aspect of complexity as described in IDT (Lin, 2022). Within the given framework, effort expectancy denotes the conviction that the system will be user-friendly and not necessitate an overabundance of exertion (Chopdar & Sivakumar, 2019). The research of Reyes-Mercado, (2018) substantiates the existence of a positive correlation between effort expectancy and intention to use. The research of Ferreira Barbosa et al., (2022) confirmed the existence of a significant positive correlation between effort expectancy and the projection of intention to use. A. Gupta et al., (2021) demonstrate that intention to use is positively influenced by effort expectancy.

Numerous studies have discovered that effort expectancy influences behavioral intention in numerous industries in a substantial and positive way. K. P. Gupta et al., (2019); Le, (2022); and Teo et al., (2015) have all discovered that effort expectancy positively and significantly influences behavioral intention regarding M-payment products. Consistent with the findings of Giovanis et al., (2019); Raza et al., (2019); Samsudeen et al., (2022); and Tan & Leby Lau, (2016), behavioral intention in M-banking products can be predicted by effort expectancy. Effort expectancy was employed by Rahi et al., (2019); Saha & Kiran, (2022); and Sivathanu, (2019) to forecast consumer behavioral intention regarding Unified Payment Interface (UPI), Internet Banking, and Digital Payment products. The relationship between effort expectancy and behavioral intention in Blockchain and Fintech products is substantial and positive (Abu Afifa et al., 2023; Chan et al., 2022). According to the findings of Abed, (2018); Dewi et al., (2020); Hanif et al., (2022); and Tak & Panwar, (2017), effort expectancy is a positive and significant predictor of behavioral intention in e-commerce, s-commerce, and mobile shopping. In the context of online food delivery and ride-hailing, Chakraborty et al., (2022); Silva et al., (2022); and Wut et al., (2021) discovered that effort expectancy has a significant and positive influence on behavioral intention. It has been confirmed by Gunasinghe et al., (2020); McKeown & Anderson, (2016); and Wong et al., (2012) that effort expectancy in e-learning has a substantial and favorable impact on behavioral intention. Effort expectancy has a significant and positive effect on behavioral intention in mHealth, according to Aydin, (2023).

Considerable research has been devoted to investigating the correlation between effort expectancy and attitude. Upadhyay et al., (2022) discovered that attitude toward M-payment is significantly and positively influenced by effort expectancy. According to the findings of Buabeng-Andoh & Baah, (2020); Isaias et al., (2017); and Lin, (2022), effort expectancy influences attitudes toward learning management systems, mobile learning, and self-service technology in a significant and positive way.

Facilitating conditions refer to the degree of assurance an individual has in receiving assistance or support from the technical and organizational infrastructure while utilizing the system (Cavdar Aksoy et al., 2020). Consumers' perceptions of the accessibility of infrastructure, resources, and support that are essential for the execution

of a particular behavior are referred to as facilitating conditions (Venkatesh et al., 2012). According to the findings of Ferreira Barbosa et al., (2022), intention to use is positively impacted by facilitating conditions. Prior research by Cavdar Aksoy et al., (2020) in the context of mHealth products also discovered that facilitating conditions had a positive effect on attitude. According to Reyes-Mercado, (2018), the intention to use was positively influenced by facilitating conditions.

The correlation between facilitating conditions and behavioral intention across diverse industries has been the subject of numerous studies. Facilitating conditions had a significant and positive impact on behavioral intention toward M-payment products, according to the findings of Teo et al., (2015); and Widyanto et al., (2022). In regard to M-banking products, Raza et al., (2019); and Samsudeen et al., (2022) discovered that facilitating conditions predicted behavioral intention. Facilitating conditions were employed by Rahi et al., (2019); Sivathanu, (2019) to forecast behavioral intention in the domains of Internet Banking and Digital Payment. The impact of facilitating conditions on behavioral intention in the context of e-commerce and mobile shopping is substantial and positive (Hanif et al., 2022; Tak & Panwar, 2017). Facilitating conditions are a significant and positive predictor of behavioral intention in ride-hailing, according to Chakraborty et al., (2022). In the context of mobile health, Alam et al., (2020) discovered that facilitating conditions had a substantial and positive impact on behavioral intention.

There is a scarcity of research that investigates the correlation between facilitating conditions and attitude. Chawla & Joshi, (2019) discovered that attitudes toward mobile wallets were significantly and positively influenced by facilitating conditions. Cavdar Aksoy et al., (2020) discovered that attitudes toward sports wearables were significantly and positively influenced by facilitating conditions.

Social influence pertains to the extent to which an individual is perceived by critical others as compelling one to utilize the system (Cavdar Aksoy et al., 2020). Social influence refers to the degree to which individuals perceive that influential individual, such as family and acquaintances, endorse the utilization of a specific technology (Venkatesh et al., 2012). The notion of social influence, according to Lin, (2022), is comparable to social norms in TAM and subjective norms in Venkatesh et al., (2003) theory of planned behavior (TRA). Reyes-Mercado, (2018) discovered that intentions to use were positively impacted by social influence. Subsequently, A. Gupta et al., (2021) discovered that intention to use was positively impacted by social influence. In addition to this, Ferreira Barbosa et al., (2022) discovered that intention to use is positively impacted by social influence.

The correlation between social influence and behavioral intention across diverse industries is the subject of numerous studies. It was discovered by Le, (2022); Widyanto et al., (2022); and Zhao & Bacao, (2021) that social influence positively and significantly affected behavioral intention regarding M-payment products. Giovanis et al., (2019); and Samsudeen et al., (2022) discovered that social influence forecasts behavioral intention regarding M-banking products. Social influence was employed by Esawe, (2022); Rahi et al., (2019); Saha & Kiran, (2022); Sivathanu, (2019); and Tarhini et al., (2016) to forecast behavioral intention in the domains of Unified Payment Interface (UPI), Internet Banking, E-wallet, and Digital Payment. The behavioral intention of individuals in the Blockchain and Fintech sectors is notably and favorably impacted by social influence (Abu Afifa et al., 2023; Chan et al., 2022; Ferri et al., 2020). Social influence is a noteworthy and favorable factor that impacts behavioral intention in the domains of e-commerce and S-commerce, as supported by the research of Abed, (2018); Dewi et al., (2020); and Tak & Panwar, (2017). In the context of online food delivery and ride-hailing, social influence had a significant and positive effect on behavioral intention, according to Almunawar et al., (2020); Chakraborty et al., (2022); and Silva et al., 2022). It has been confirmed by Arif et al., (2018); Maldonado et al., (2011); and McKeown & Anderson, (2016) that social influence significantly and positively affects behavioral intention in e-learning. Social

influence on behavioral intention in mHealth was found to be significantly and positively correlated by Alam et al., (2020); and Aydin, (2023).

There is a paucity of research that investigates the correlation between social influence and attitude. Social influence considerably and positively impacted attitudes toward the Learning Management System, according to Buabeng-Andoh & Baah, (2020). Social influence has a substantial and positive effect on attitudes toward self-service technology, according to Lin, (2022).

It is widely acknowledged that an individual's evaluation of a behavior as favorable or adverse constitutes their attitude toward that behavior (Cavdar Aksoy et al., 2020). Consumers' evaluations of a behavior, which may be positive or negative, constitute their attitude (Ajzen, 1991). The behavioral intentions of consumers can be substantially influenced by their attitudes towards a product, which can range from positive to negative (Pebrianti & Aulia, 2021). By incorporating this framework, researchers will be able to further examine the impact of customer attitudes on adoption intentions and validate novel connections within the expanded UTAUT model (Sharma et al., 2020). According to the findings of Upadhyay et al., (2022), attitude has a substantial and positive impact on behavioral intention regarding M-payment. Both Buabeng-Andoh & Baah, (2020) as well as Teck Soon & Sharifah, (2017) discovered that behavioral intention in e-learning is significantly and positively influenced by attitude. Cavdar Aksoy et al., (2020) discovered that attitude influences behavioral intention regarding sports wearables in a significant and positive way.

Due to heightened consciousness regarding data privacy concerns, it is crucial to comprehend the potential impact of technology acceptance and technophobia on the motivation to utilize mHealth applications. While certain individuals may be receptive to embracing novel technologies, others may experience unease regarding their operation and manifest technophobia. Ultimately, this could have an impact on their inclination to utilize health and fitness applications. The rejection of technology is referred to as technophobia (Cavdar Aksoy et al., 2020). A technological phobia is characterized by an individual's irrational dread or anxiety regarding the potential negative consequences of technological advancements that may disrupt their daily lives or personal routines (Khasawneh, 2018b, 2018a). The emotion of apprehension or unease when utilizing novel technologies or intricate devices is known as technophobia (Osiceanu, 2015). Individuals exhibit greater specificity in their technological aversion. Simply stated, they lack a general aversion towards computers. Conversely, they might experience apprehension towards computer software or applications (Khasawneh, 2018a). In their study, Agha & Saeed, (2015) investigated the moderating influence of technophobia on customer acceptance, perceived credibility, perceived usefulness, and social risk. Cavdar Aksoy et al., (2020) discovered that the relationship between performance expectancy and attitude was negatively moderated by technophobia. Conversely, (Cavdar Aksoy et al., 2020) discovered in the identical investigation that technophobia did not exert a substantial influence on the moderating role of effort expectancy in relation to attitude. By assisting app developers and healthcare providers in customizing their offerings to address the distinct requirements and apprehensions of potential users, this research can make a valuable contribution towards the overarching objective of enhancing public health in Indonesia.

In comparison to demographic variables, research on the effect of technophobia on technology acceptance is still comparatively limited (Sinkovics et al., 2002). The measurement and definition of technophobia remain complex areas of study; therefore, it is imperative that future research investigates technophobia across various demographic groups and countries (Khasawneh, 2018b, 2018a). Cavdar Aksoy et al., (2020) demonstrated the significance of investigating the impact of technophobia on behavioral intention across generations and the influence of independent factors in UTAUT.

2. RESEARCH METHOD

This is a quantitative research approach utilizing surveys. Quantitative research is that which employs measurable and calculable data. The study in question was carried out in Indonesia. The data sources for this study consist of both primary and secondary sources. Secondary sources of information include marketing management manuals, BPS, and prior research. Survey methodology serves as the principal data collection approach in this study. This method of data acquisition is utilized due to its low cost and rapid execution (Naresh K. Malhotra, 2015). The survey was conducted through the electronic distribution of questionnaires. The target demographic for this study comprises Indonesians between the ages of 15 and 24 who are members of Generation Z and are acquainted with the "Home Workout - No Equipment" application. Purposive sampling, a form of non-probability sampling, is the method of sampling employed. The study's sample criteria consist of the following: participants must be between the ages of 15 and 24, reside in Indonesia, possess a smartphone capable of running the mHealth application, and be knowledgeable about the "Home Workout – No Equipment" application. Following the conclusion of the data collection period (September-October 2023), a total of 427 responses were gathered from the participants. 375 valid samples were collected following data cleansing to eliminate ages not included in the 15–24 age range and respondents who provided identical responses to all questions. The examination of hypotheses was conducted by employing structural equation modeling (SEM). An IBM AMOS 24 system was utilized for SEM analysis. Furthermore, certain values are computed utilizing IBM SPSS 23.

On the basis of the preceding description, the following conceptual framework for research can be constructed:

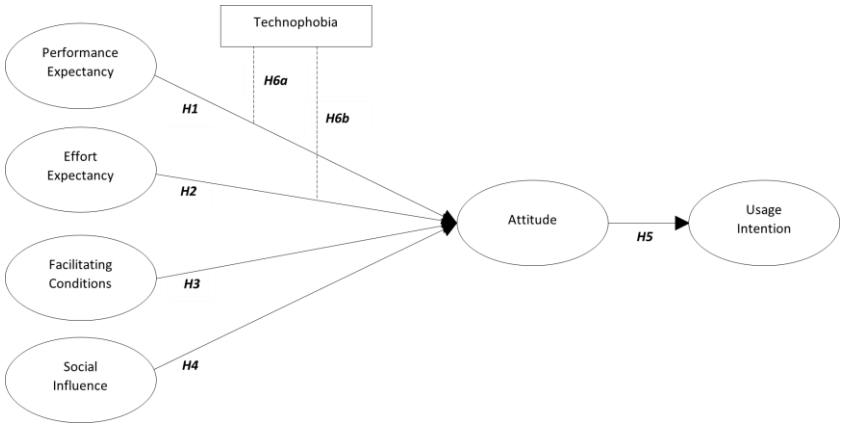

Figure 1. Conceptual Framework

On the basis of the aforementioned problem statement and conceptual framework, the subsequent hypotheses guide this investigation:

H1 : The relationship between performance expectancy and attitudes toward the Home Workout application in Indonesia is significantly positive.
H2 : Attitudes toward the Home Workout application in Indonesia are significantly and positively influenced by effort expectation.
H3 : The acceptance of the Home Workout application among Indonesian users is substantially enhanced by facilitating conditions.
H4 : Positive attitudes towards the Home Workout application in Indonesia are substantially impacted by social influence.
H5 : Positively, attitude significantly influences the intention to use the Home Workout application in Indonesia.

H6a : Technophobia moderates the relationship between attitude and performance expectancy regarding the Home Workout application in Indonesia in a statistically significant negative way.

H6b : In Indonesia, the relationship between effort expectancy and attitude regarding the Home Workout application is significantly moderated negatively by technophobia.

3. RESULTS AND DISCUSSIONS

3.1 Results

a. Respondent Characteristics

The following demographic characteristics were utilized to analyze respondent profiles for this survey:

Table 1. Respondent Characteristics

Category	Item	Frequency	Percentage
Age	20 – 24 Years old	270	72.0%
	15 – 19 Years old	105	28.0%
Gender	Female	245	65.3%
	Male	130	34.7%
Education	Bachelor's degree	275	73.3%
	High School or equivalent	71	18.9%
	Diploma (D1/D2/D3)	25	6.7%
	Master	3	0.8%
	Has no formal education	1	0.3%
Job	Student/college student	302	80.5%
	Private workers (company employees)	29	7.7%
	Temporary/contract work	11	2.9%
	Freelancers	11	2.9%
	Unemployed	9	2.4%
	Entrepreneur	5	1.3%
	Teacher/lecturer	4	1.1%
	PNS (Civil Servants)	2	0.5%
	Farmer/rancher	1	0.3%
	Migrant workers	1	0.3%
Monthly Income	< Rp1.000.000	253	67.5%
	Rp1.000.000 - Rp1.999.999	58	15.5%
	Rp2.000.000 - Rp2.999.999	30	8.0%
	Rp3.000.000 - Rp3.999.999	15	4.0%
	> Rp4.000.000	19	5.1%
Domicile	Java	245	65.3%
	Borneo	61	16.3%
	Sumatra	46	12.3%
	Sulawesi	16	4.3%
	Bali	3	0.8%
	Moluccas	3	0.8%
	Nusa Tenggara	1	0.3%
Favorite sport	Recreational Sports	189	50.4%
	Fitness Exercises	113	30.1%
	Competitive Sports	73	19.5%
Total		375	100%

b. Measurement Models

Validity and reliability assessments are conducted prior to hypothesis testing. In order to conduct confirmatory factor analysis (CFA), all variables were designated as exogenous variables. The following statements elaborate on the results obtained from the assessments of validity and reliability.

Table 2. Standardized Loading Factor (SLF), Construct Reliability (CR), and Average Variance Extracted (AVE) Values in the Overall Fit Model

	Item	SLF	CR	AVE
Performance Expectancy	This health and fitness app will be beneficial to my sporting activities.	0.783	0.828	0.548
	I can do activities faster when I use this health and fitness app.	0.751		
	I will improve my chances of having a better sports life if I utilize this health and fitness app.	0.630		
Effort Expectancy	My interactions with this health and fitness app would be clear and understandable.	0.742	0.803	0.577
	I think this fitness app would be simple to operate.	0.782		
	Learning how to utilize this health and fitness app is simple for me.	0.754		
Facilitating Conditions	I possess the requisite resources to utilize this health and fitness application.	0.812	0.801	0.573
	I possess the requisite knowledge to operate this health and fitness application.	0.752		
	I utilize this health and fitness application on other platforms.	0.704		
Social Influences	Important individuals (peers and professionals) encouraged me to utilize this health and fitness application.	0.672	0.775	0.536
	Those who exerted an impact on my conduct desired that I utilize this health and fitness application in lieu of any other option.	0.788		
	Those whose judgement I highly regarded advised me to utilize this health and fitness application.	0.731		
Technophobia			0.897	0.524
	Techno Paranoia			
	New technologies terrify me because they may render us (humans) obsolete one day.	0.582		
	Techno Fear			
	The Technological I am terrified of utilizing certain functions on my cell phone.	0.674		
	Google and other search engines evoke apprehension in me.	0.706		
	I am petrified of connecting to the Internet for fear that I am being followed.	0.740		
	Techno Anxiety			
	I experience restlessness whenever I am required to utilize a novel communication device.	0.854		
	When I am required to learn a new computer operating system, such as the transition from Windows 10 to Windows 11, I experience a sense of restlessness.	0.776		
	Cybernetic Revolution			
	Online directories including Google, Yahoo, and Bing instill apprehension within me due to the ease with which they facilitate stalking.	0.714		
	Cellphone Avoidance			
	It causes me anxiety to switch communication devices (such as your mobile phone), so I make an effort to refrain from doing so.	0.716		
Attitude	It is prudent to utilize this health and fitness application.	0.695	0.796	0.567
	In general, my perception of utilizing this health and fitness application is positive.	0.766		
	The concept of using this health and fitness application appeals to me.	0.794		
Usage Intention	Sporting is how I plan to utilize this health and fitness application.	0.875	0.878	0.707
	I plan to utilize this health and fitness application to organize my athletic endeavors.	0.814		
	In my athletic endeavors, I plan to utilize this health and fitness application frequently.	0.832		

The results of the validity and reliability tests indicate, as shown in Table 2, that the model's indicators are valid and satisfy the criteria. The current indicators possess a Standardized Loading Factor (SLF) value that exceeds 0.50. This finding suggests that every metric employed to assess the composition of the generated models is accurate and adequate. The Construct Reliability (CR) and Average Variance Extracted (AVE) scores both exceed 0.70 and 0.50, respectively. This demonstrates that every instrument is dependable and capable of consistently measuring the structure of every model constructed.

Table 3. Goodness of Fit Index

Goodness of Fit Index	Cut off Value	Results	Evaluation
X^2	Expected to be low	418.308	
Df		276	
X^2-Significance Probability	≥0.05	0.000	Not Fit
CMIN/DF	≤ 3.00	1.516	Good Fit
RMSEA	≤ 0.08	0.037	Good Fit
RMR	< 0,05	0.030	Good Fit
NFI	≥ 0.90	0.928	Good Fit
IFI	≥ 0.90	0.974	Good Fit
TLI	≥ 0.90	0.967	Good Fit
CFI	≥ 0.90	0.974	Good Fit

The Model Fit results in CFA are presented in Table 3. This indicates that the model satisfies the conformance requirements and can be deemed compliant. Seven indices guarantee a satisfactory level of fit. When three to four indices indicate a satisfactory level of fit or surpass the predetermined threshold, the study configuration model can be deemed suitable and accepted. Following the completion of the CFA, the causal model depicted in Figure 2 was constructed utilizing dependable composite variables that were derived from data imputation using AMOS.

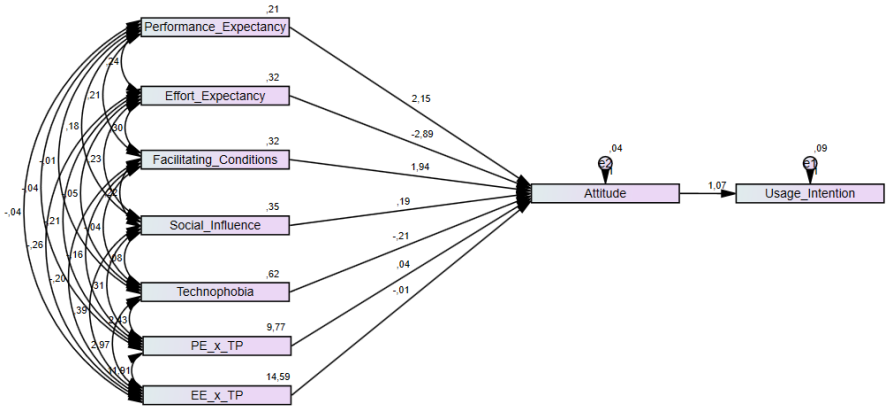

Figure 2. Full Model Testing

c. Hypotheses Testing

The outcomes of examining the impacts of the interrelationships among variables in the experimental design constructed for this research are as follows.

Table 4. Hypotheses Testing

Hypothesis	Path	Estimate	S.E.	C.R	P	Evaluation
H1	ATT <--- PE	2,151	0,072	30,053	***	Approved
H2	ATT <--- EE	-2,891	0,115	-25,187	***	Rejected
H3	ATT <--- FC	1,940	0,076	25,549	***	Approved

H4	ATT <--- SI	0,192	0,026	7,360	***	Approved
H5	INT <--- ATT	1,069	0,026	41,167	***	Approved
H6a	ATT <--- PE × TP	0,041	0,053	0,766	0,444	Rejected
H6b	ATT <--- EE × TP	-0,012	0,044	-0,269	0,788	Rejected

H1 is accepted because performance expectancy has a statistically significant positive effect on attitude (β = 2.151, t = 30.3053, p < 0.001). H2 is denied on the grounds that effort expectancy negatively influences attitude (β = -2.891, t = -25.187, p < 0.001). H3 is adopted due to the significant positive effect of facilitating conditions on attitude (β = 1.94, t = 25.549, p < 0.001). H4 is supported on the grounds that social influence has a statistically significant positive impact on attitude (β = 0.192, t = 7.36, p < 0.001). H5 is adopted due to the significant positive effect of attitude on usage intention (β = 1.069, t = 41.167, p < 0.001).

To account for the moderating influence of technophobia on the associations between effort expectancy and attitude and performance expectancy and attitude, the structural equation model was modified to incorporate two interaction effects. H6a is rejected because the interaction between performance expectancy and technophobia and attitude is not statistically significant (β = 0.041, t = 0.766, p < 0.444). H6b is rejected due to the insignificance of the interaction between effort expectancy and technophobia and attitude (β = -0.012, t = -0.269, p < 0.788).

3.2 Discussions

In line with the results reported in several other research studies (Blut et al., 2016; Cavdar Aksoy et al., 2020; Giovanis et al., 2019; Isaias et al., 2017; Istijanto & Handoko, 2022; Lin, 2022; Roy et al., 2017; Sharma et al., 2020; Upadhyay et al., 2022), attitude is significantly and positively influenced by performance expectancy. Supporting the notion that facilitating conditions positively influence attitude is consistent with the findings of the following studies: Chawla & Joshi, (2019); Istijanto & Handoko, (2022); Upadhyay et al., (2022); and Yang, (2010). Attitude is substantially and favorably impacted by social influence; this is consistent with the findings of Cavdar Aksoy et al., (2020); and Lin, (2022). Supporting this notion are the studies of Cavdar Aksoy et al., (2020); Chawla & Joshi, (2019); Istijanto & Handoko, (2022); Lin, (2022); Sharma et al., (2020); Teck Soon & Sharifah, (2017); Upadhyay et al., (2022); and Yang, (2010), which all indicate that attitude has a substantial and favorable impact on usage intention.

Istijanto & Handoko, (2022) found that effort expectancy has a notable adverse impact on attitude, which was supported. This finding contradicts the conclusions drawn by Alshare et al., (2019); Bailey et al., (2017); Blut et al., (2016); Cavdar Aksoy et al., (2020); Cebeci et al., (2020); de Luna et al., (2019); Demoulin & Djelassi, (2016); Giovanis et al., (2019); Isaias et al., (2017); Lin, (2022); Roy et al., (2017); and Schierz et al., (2010). One possible explanation is that Generation Z is technologically savvy and thus more inclined to invest effort in mastering new technologies, such as mHealth applications. The literature includes studies by Abed, (2018); Abu Afifa et al., (2023); Chan et al., (2022); Duan & Deng, (2021); Rahi et al., (2019); Teo et al., (2015); Thongsri et al., (2018); Wang et al., (2017); and Zhao & Bacao, (2021), all of which have identified a significant and positive correlation between efforts anticipated and outcomes anticipated. In their study, Widyanto et al., (2022) discovered that performance expectancy was significantly and positively correlated with facilitating conditions and social influence. In the interim, Tan and Tan & Leby Lau, (2016) identified performance expectancy as the moderating factor between behavioral intention and effort expectancy. This highlights the necessity for further investigation into the correlation among effort expectancy, performance expectancy, social influence, and facilitating conditions within the UTAUT model.

Consistent with the findings of Agha & Saeed, (2015), technophobia does not have a significant moderating effect on the relationship between attitude and performance

expectancy. However, this contradicts the conclusions drawn by Cavdar Aksoy et al., (2020). In line with the findings of Cavdar Aksoy et al., (2020), it is also determined that technophobia has no significant moderating effect on the relationship between effort expectation and attitude. In contrast, Cavdar Aksoy et al., (2020) investigated Generation Y, whereas Generation Z, which was born into a technological society, may have a minimal level of technophobia. This likely explains why the moderating effect of technophobia in this study is insignificant in the relationship between effort expectancy and performance expectancy and attitude.

4. CONCLUSION

This study demonstrates the heightened level of health consciousness in Indonesia, which can be attributed to advancements in technology, convenient information accessibility, and the proliferation of health applications. The research community is intrigued by the application "Home Workout - No Equipment" developed by Leap Fitness Group in this particular context. This research focuses on Generation Z residing in Indonesia. According to the findings of the data analysis, effort expectancy has a detrimental impact on attitude, whereas performance expectancy positively influences attitude. This parallels the results of a number of prior investigations, yet it also exhibits inconsistencies with specific studies. Aside from that, social influence and facilitating conditions have a positive effect on attitude. Additionally, the moderating influence of technophobia on the relationship between effort expectancy, performance expectancy, and attitude is investigated. The results indicate that technophobia has no appreciable effect on the relationship. However, prior studies have identified Generation Y as having a moderating effect. As a whole, these results offer significant insights into the ways in which attitudes and intentions regarding the use of health applications among Indonesian youth are influenced by particular factors. The implications of this research extend to the development and marketing of mHealth applications, laying the groundwork for future investigations in this domain.

Building on these intriguing findings presented in this study, it becomes apparent that while certain aspects of the hypotheses testing align with previous investigations, there are notable inconsistencies that warrant further exploration. The identified inconsistencies, particularly in the relationship between effort expectancy and attitude, as well as the moderating influence of technophobia, underscore the complexity of factors influencing the attitudes and intentions of Generation Z towards health applications. These variations may be indicative of unique cultural or contextual nuances specific to the Indonesian setting. The divergence in results concerning the moderating effect of technophobia, with our study indicating no substantial impact while prior research involving Generation Y suggests otherwise, raises important questions about the generational dynamics at play. This incongruity prompts the need for more nuanced investigations into the interplay between technology perceptions and generational attitudes, specifically within the Indonesian context.

Moreover, the study's focus on the application "Home Workout - No Equipment" by Leap Fitness Group adds a layer of specificity to the inquiry. Future research endeavors could delve deeper into the functionalities and user experiences of specific health applications to discern the intricacies that may contribute to the observed inconsistencies. Additionally, exploring potential variations in the impact of technophobia across different generations within Indonesia could provide a more comprehensive understanding of the dynamics involved.

Particularly prevalent among the younger demographic in Indonesia, health and fitness applications are proliferating in a technologically dominant era. The factors that impact user acceptability and motivation regarding the adoption of the "Home Workout - No Equipment" application have been identified in this study. The findings of this study

contribute to the collective comprehension of the variables that impact the adoption of technology within the realm of health applications. The subsequent recommendations can assist stakeholders, application developers, and future research in Indonesia with regard to optimizing the utilization of health and fitness applications.

There are certain enhancements that could potentially augment user acceptance. To begin, it is imperative to enhance performance expectancy, which refers to the users' perception of the advantages that the application will provide. This can be accomplished through the provision of more informative content, more transparent progress monitoring, and results reporting that is simple to access. Moreover, in order to address the discovery that effort expectancy has an adverse effect on attitude, it is critical to enhance the application's usability. Ensure the user interface is devoid of superfluous barriers and straightforward to navigate. Additionally, it is essential to enhance the caliber of customer support in order to assist users in resolving issues and gaining a greater sense of confidence when utilizing the application.

Contributions from stakeholders, including health organizations and governments, can be substantial. Support can be extended to technological literacy training programs, with a particular focus on generations that possess limited technological proficiency. This can help promote the use of health applications and reduce technophobia. Furthermore, stringent oversight and governance pertaining to the confidentiality and integrity of user information on health applications are imperative. Users will feel more secure if application compliance is organized and ensured through the use of stringent guidelines.

Further investigation is warranted to examine the ramifications of technophobia on the adoption of technology across various contexts. By making comparisons with various age groups, it is possible to ascertain the consistency of the identified patterns. Further contextual investigation may provide insights into additional determinants that impact the adoption of technology within the realm of health applications. Furthermore, by incorporating research findings into the development of practical health applications and conducting impact analyses on particular modifications during the process, more effective strategies to enhance user acceptance can be identified.

In conclusion, while this research provides valuable insights into the factors influencing attitudes towards health applications among Indonesian youth, the identified inconsistencies emphasize the necessity for further studies. Addressing these discrepancies will not only contribute to the refinement of theoretical frameworks but will also inform more effective strategies for the development and marketing of mHealth applications tailored to the unique needs and perceptions of Generation Z in Indonesia.

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