

CHAPTER II LITERATURE REVIEW

2.1. Empirical Review

This section presents an empirical review of prior related literature and their differences from this study, as seen in **Table 1** below.

Table 1. Empirical Reviews

No	Title	Researcher(s)	Research Objectives	Research Scope	Research Result	Differences with Current Research
1	Does multidimensional service quality generate sustainable use intention for Facebook?	Hossain & Kim (2018)	This study investigates the impact of multidimensional and hierarchical service quality on continuous usage intent on Facebook.	This study uses the dimensions and attributes of service quality (Interaction Quality, Environment Quality, Social Quality, Outcome Quality) to find its relationships with Satisfaction and Word-of-mouth on Sustainable use intention.	The result suggested that all four dimensions of service quality (outcome quality, environment quality, interaction quality, and social quality) significantly impacted satisfaction. Satisfaction was	This study was similar to the current study regarding business segmentation, which was social media. However, the current study adopted a different e-service quality model with different dimensions (website design, security/privacy, fulfillment). Besides e-service quality, the current

					established as a valid predictor of sustainable intention to use and word-of-mouth (WOM). The influence of WOM on sustainable intention to use was also identified. Outcome Quality and Interaction Quality the strongest predictors of WOM among all the dimensions.	research also aimed to assess the influence of a sense of belonging on establishing user satisfaction. Lastly, current research also aimed to assess the impact of user satisfaction on intention to use Indonesian Discord users.
2	Social media networking satisfaction in the US and Vietnam: Content versus connection	Krishen et al. (2019)	This study explores cross-cultural differences regarding the relative emphasis of social connections versus information content to examine the	This study uses a fuzzy set qualitative comparative analysis (fsQCA) to find the two cultures' values of belonging, affinity, and interactivity.	Vietnamese people derive higher satisfaction from the quality of systems and emotional connections, and Americans show higher satisfaction from information quality.	The current study adopted a different hierarchical model of e-service quality dimensions: website design, security/privacy, and fulfillment. Furthermore, the current study also aimed to examine the relationship between a sense of belonging in building superior user satisfaction.

			determinants of satisfaction in social media networks in Vietnam and the US.			The degree of satisfaction was then also examined to determine its impact on Indonesian users' intention to use Discord. This study's scope was limited to Indonesia and did not aim to compare the cultural differences between two or more countries.
3	The impact of inertia and user satisfaction on the continuance intentions to use mobile communication applications: A mobile service quality perspective	Wang et al. (2019)	This research was conducted to answer the question: What are the m-service quality factors that influence the satisfaction and inertia of m-service users and, consequently, increase their continuance intentions with respect to a specific m-	This study seeks to enhance the current understanding of the sustainable use of m-services in terms of m-services quality. The research model combines the critical factors of m-service quality, user satisfaction, and inertia.	The results indicated that interaction quality, environment quality, inertia, and user satisfaction are vital determinants of continuance intention, while outcome quality is not.	This study adopted different user satisfaction measurements of interaction, environment, and outcome quality. Meanwhile, the current study adopted a hierarchical model of e-service quality dimensions (website design, security/privacy, and fulfillment) and sense of belonging as the user satisfaction predictors. The relationship of user satisfaction on intention to use was also examined to

			service application?			determine its impact on the usage intention of Indonesian Discord users.
4	<i>Analisis Tingkat Kepuasan Pengguna pada Aplikasi Discord Menggunakan Metode SERVQUAL</i>	Khalid (2021)	This study analyzes user satisfaction with the Discord application using the SERVQUAL method.	This study adopted the SERVQUAL method (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) to measure Indonesian Discord user satisfaction. The research was conducted in Jambi City.	Out of all the SERVQUAL dimensions (Tangibles, Reliability, Responsiveness, Assurance, and Empathy), only Empathy suggested a significant impact on Perception with T-count = 5.126, which is bigger than the T-table (1.985523).	Khalid (2021) adopted the SERVQUAL measurement model to measure Jambi City Discord user perception of using the Discord services. While the current study adopted a hierarchical model of e-service quality dimensions (consisting of website design, security/privacy, and fulfillment) and sense of belonging as the user satisfaction predictors. The relationship of user satisfaction on intention to use was also examined to determine its impact on the usage intention of Indonesian Discord users.
5	The impact of e-service quality and customer satisfaction on	Rita et al. (2019)	This research aims to develop new knowledge to understanding	This study uses e-service quality dimensions in website design, customer	The analysis results show that the three dimensions of e-	The current study was conducted in the context of social media, which differed from Rita et al.

	customer behavior in online shopping		better the most critical dimensions of e-service quality that impact customer satisfaction, customer trust, and customer behavior to build on the existing literature on e-service quality in online shopping.	service, security/privacy, and fulfillment to examine the effect on overall e-service quality, customer satisfaction, customer trust, repurchase intention, word of mouth, and site revisit. This research was conducted in the domain of online shopping.	service quality, namely website design, security/privacy, and fulfillment, affect overall e-service quality. Meanwhile, customer service is not significantly related to overall e-service quality.	(2019) in online shopping customers. The current study adopted a different hierarchical model of e-service quality dimensions (website design, security/privacy, and fulfillment) with a sense of belonging as the user satisfaction predictor to fit the research object better. The relationship of user satisfaction on intention to use was also examined to determine its impact on the usage intention of Indonesian Discord users.
6	The Impact of TikTok User Satisfaction on Continuous Intention to Use the Application	Sharabati et al. (2022)	This research aims to determine the factors that influence the continuous intention to use TikTok in Jordan and to what extent satisfaction with TikTok influences the	This study uses a quantitative cross-sectional approach. Data is collected through online surveys and shared on social media such as WhatsApp, Instagram, and Facebook. Variables such as past time, affection,	Results show that factors such as self-expression, informativeness, a sense of belonging, and trendiness significantly affects TikTok user satisfaction. However, sociability,	Despite its similarities in a research context in social media, the current study adopted a different hierarchical model of e-service quality dimensions (website design, security/privacy, and fulfillment). The current study also examines the sense of belonging to

			continuous intention to use TikTok.	trendiness, sense of belonging, sociability, informative, and self-expression are used to find correlations with user satisfaction on continuous intention to use.	affection, and past-time do not substantially influence TikTok user satisfaction.	determine its impact on building superior user satisfaction. The relationship between user satisfaction and intention to use was also examined to determine its impact on the usage intention of Indonesian Discord users.
7	Electronic service quality of Facebook social commerce and collaborative learning	Wu et al. (2015)	This study aims to utilize the e-SQ dimensions to measure the service quality of commercial activities on Facebook.	This study used the analytic hierarchy process (AHP) questionnaire and the fuzzy analytic hierarchy process (FAHP) to evaluate the weighting of e-SQ dimensions (Reliability, Responsiveness, Information, Security, Ease of Use, and Trust) among cross-countries participants. It also used VIKOR method to find the ideal e-SQ dimensions and ideal	The result of FAHP indicated that e-SQ dimensions (Security, Trust, Reliability) have more weighting than the other dimensions. While Ease of Use, Information, and Responsiveness will influence the users' intention to visit ads.	Wu et al. (2015) adopted decision-making methods (AHP, FAHP, and VIKOR) to weigh the importance of e-SQ dimensions. Meanwhile, the current study aims to examine the relationship between e-service quality and a sense of belonging with user satisfaction, which later impacts the usage intention of Indonesian Discord users.

				commercial activities on Facebook.		
8	The Impact of Service Quality on Customer Loyalty through Customer Satisfaction in Mobile Social Media	Yum & Yoo (2023)	Yum & Yoo (2023) aimed to identify the relationship between service quality, customer satisfaction, and customer loyalty in mobile social media. Furthermore, it also aimed to evaluate the role of customer satisfaction as a mediator.	The proposed research model consists of four mobile service quality dimensions (usefulness, convenience, design, and security/privacy), customer satisfaction, and customer loyalty. The survey used the self-administrated method.	The study suggested that usefulness, convenience, design, and security/privacy significantly and positively affect customer satisfaction. It also suggested that customer satisfaction significantly and positively impacts customer loyalty. Lastly, this study proved that customer satisfaction mediates the relationship between mobile service quality and customer loyalty.	Besides the mobile service quality, the current study also measured the relationship of sense of belonging on user satisfaction to provide a more comprehensive evaluation of digital community space. The current study also aims to examine the relationship between user satisfaction and intention to use Indonesian Discord user.

9	The Applicability of E-S-QUAL for Assessing the Service Quality of Social Media Services in Academic Libraries	Kim (2015)	This study aimed to examine the applicability of the E-S-QUAL instrument model developed by Parasuraman et al. (2005) to measure the service quality of library social media services.	Nine hypotheses are proposed to examine E-S-QUAL applicability on library social media services. Data was collected in five academic university libraries across North America via online surveys on Twitter. The data collected from the questionnaire, based on the modified E-S-QUAL instrument, was analyzed using multivariate statistical methods, including exploratory, confirmatory factor analysis, and many more.	The study suggested that the modified E-S-QUAL instrument had good reliability and relationships within each construct to measure the service quality of library social media services. Rewording is suggested to reduce the possibility of dimensionality and validity test errors.	Kim (2015) aimed to modify the E-S-QUAL measurement model to test its applicability in the library social media services. The current study adopted a different hierarchical model of e-service quality dimensions (website design, security/privacy, and fulfillment). In addition, the current study also examines the sense of belonging to determine its impact on building superior user satisfaction. The relationship of user satisfaction on intention to use was also examined to determine its impact on the usage intention of Indonesian Discord users.
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The empirical review concluded that e-service quality was an important predictor of user satisfaction, and user satisfaction was proven to have a positive relationship with intention to use. It can be indicated that the user perceived a higher satisfaction and usage intent to use social media services to engage with their community when there is a superior degree of e-service quality combined with a sense of belonging.

2.2. Theoretical Review

2.2.1. Discord

Discord is a VoIP, instant messaging platform created in 2015 and is widely used by gamers to communicate while playing games. Data from the official Discord website (discord.com) shows that currently, Discord has 150 million monthly active users, 19 million active servers per week, and 4 billion server conversation minutes daily. Furthermore, according to a statistical overview of Discord provided by a statistic portal named Statista, in 2023, Discord is estimated to have reached over 560 million registered users, despite the competition with other social media platforms such as Facebook, Instagram, and Twitter. As a digital community space provider platform, Discord has been used by various communities ranging from education (Wiles & Simmons, 2022) to e-sports communities (Reitman et al., 2021).

In Discord, the community space is called a server. Discord server structure gives a community an inherent hierarchy that influences how a society is organized, how rules and norms are set, and how disputes are resolved (Reitman et al., 2021). The interaction space on a Discord server is made based on separate topic-based

channels, also called channels. The user interface of Discord text and voice channels are shown in Figure 2.1 and Figure 2.2.

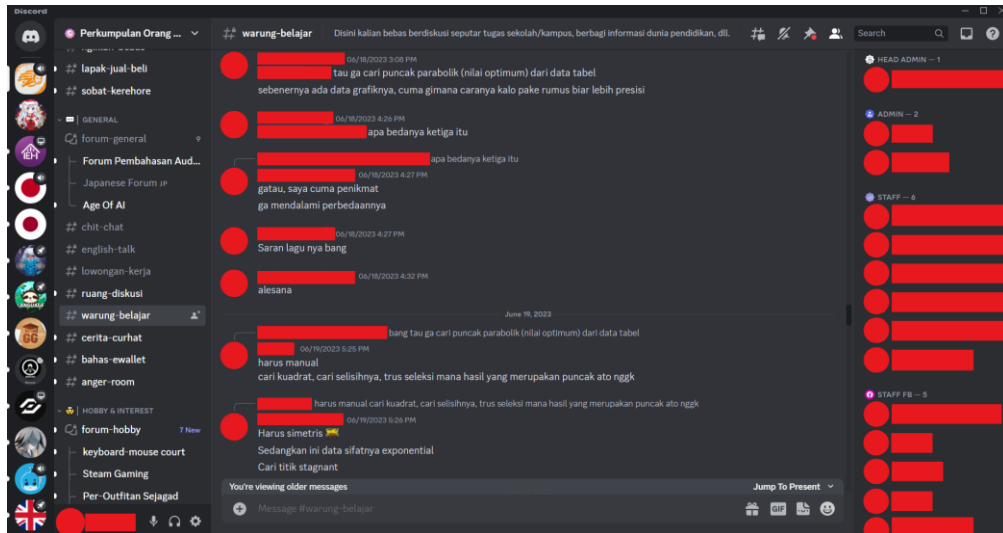


Figure 2.1 Discord User Interface for Text Chatting

Figure 2.2 below shows the user interface example of the Discord desktop application's voice and video chat features. The user has the option to turn on their camera while joining a voice room.

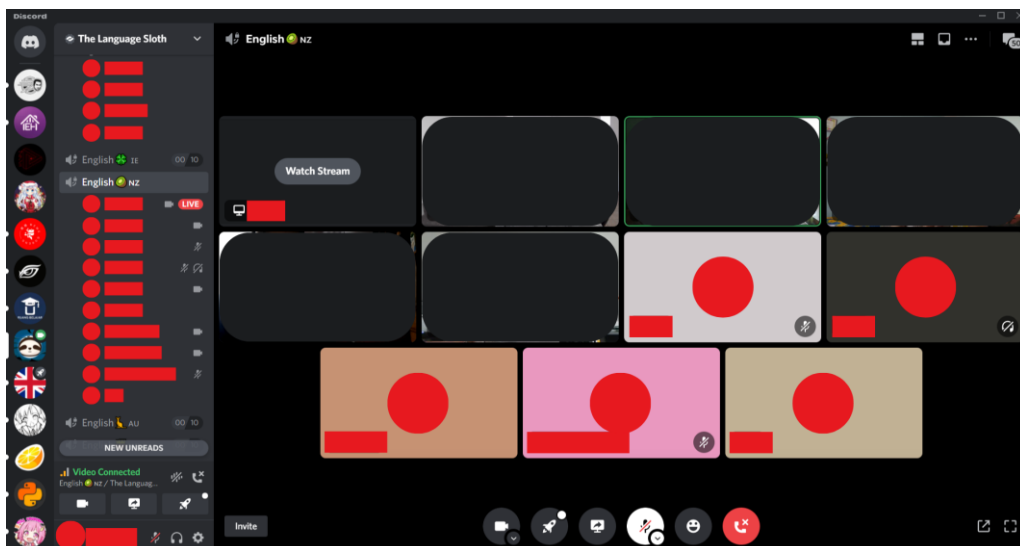


Figure 2.2 Discord User Interface for Voice and Video Chatting

Discord allows its users to customize according to the needs of their respective communities, as shown in Figure 2.3. Thus, there are no restrictions regarding the topic of a channel, hierarchical server structure, and each community can determine their own server rules. In addition to the regulations set by the community, Discord has established Terms of Service and Community Guidelines. Suppose there are indications of violations of the rules that Discord has made. In that case, users have the right to report suspected communities, and Discord has the right to act against servers or individuals indicated to have violated the rules (Jiang et al., 2019).

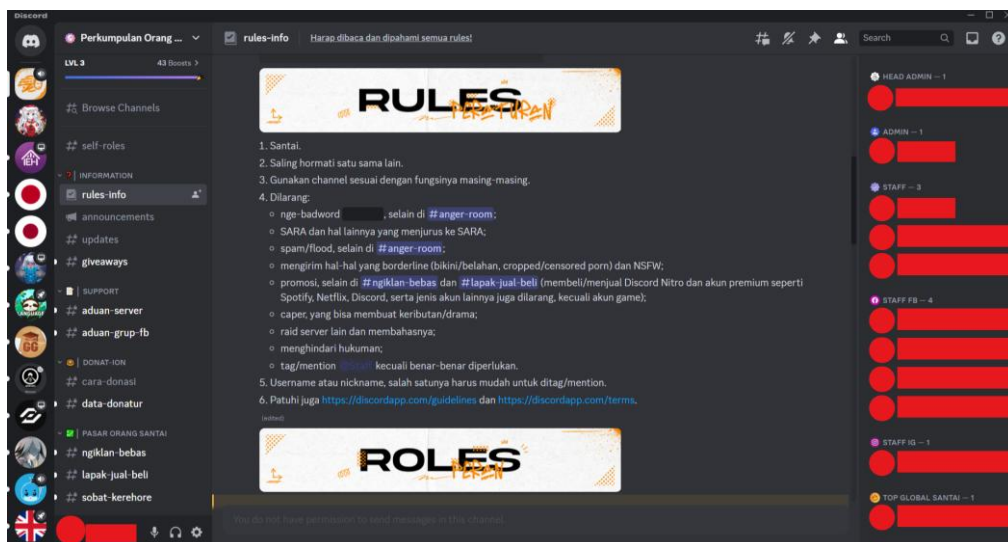


Figure 2.3 Discord Community Rules

2.2.2. e-Service Quality

Parasuraman et al. (2005) defined e-service quality as the degree to which a website provides an efficient and compelling buying experience and after-purchase process. Wolfinbarger & Gilly (2003), in a study on electronic retailing quality (eTailQ), explained that e-service quality is the end-to-end transaction process

which includes information research, website navigation, order, customer service interactions, delivery, and the ordered product satisfaction. Multiple studies were conducted to examine the presence of e-service quality in social media and mobile services as it suggested that service quality (and e-service quality) affects users' overall perception towards the service given by the provider (Hossain & Kim, 2018; Kim, 2015; Lien et al., 2017; Zhao et al., 2012).

Research on the conceptual model of e-service quality shows that e-service quality is best conceptualized as a hierarchical construct with sixteen attributes in four dimensions, where these four dimensions influence the dimensions of overall service quality (Blut, 2016; Rita et al., 2019). These four dimensions are as follows: 1) website design, 2) customer service, 3) security/privacy, and 4) fulfillment. Findings by Rita et al. (2019) suggested that website design, security/privacy, and fulfillment were positively associated with developing the outstanding service quality of Indonesian customers. However, customer service did not show a statistically significant relationship with e-service quality among Indonesians.

One of the methods to measure e-service quality is by evaluating service providers' website performance (Chuang et al., 2016; Dickinger & Stangl, 2013).

The common factors to measure the e-service quality consist of:

- Website Design (Blut, 2016; Dickinger & Stangl, 2013; Rita et al., 2019; Wolfinbarger & Gilly, 2003; Yum & Yoo, 2023)
- Information Quality (Blut, 2016; Dickinger & Stangl, 2013; Rita et al., 2019; Wu et al., 2015)

- Website Aesthetics (Visual Appearance) (Anindita & Perdana, 2022; Blut, 2016; Park & Gretzel, 2007; Rita et al., 2019). Anindita & Perdana (2022) suggested that maintaining the excellence of website appearance aesthetics is essential and is attributed to its role in determining user satisfaction.
- Website Convenience (Ease of Use) (Blut, 2016; Dickinger & Stangl, 2013; Rita et al., 2019; Wu et al., 2015; Yum & Yoo, 2023). Yum & Yoo (2023) referred to convenience as the degree of ease and usage simplicity regardless of the accessed time and place.
- Website Personalization (Blut, 2016; Li & Suomi, 2008; Park & Gretzel, 2007; Rita et al., 2019). Li & Suomi (2008) suggested that in e-service quality, personalized service can improve user satisfaction, and they will most likely be reluctant to try services offered by other companies.
- System Availability (Blut, 2016; Dickinger & Stangl, 2013; Parasuraman et al., 2005; Rita et al., 2019). Dickinger & Stangl (2013) referred to system availability as the degree of website technical functionality, performance, and responsiveness.
- Security/Privacy (Blut, 2016; Kaya et al., 2019; Parasuraman et al., 2005; Rita et al., 2019; Wu et al., 2015; Yum & Yoo, 2023). Yum & Yoo (2023) explained that security/privacy refers to the degree of personal data protection and usage record management.
- Fulfillment (Blut, 2016; Kaya et al., 2019; Kim, 2015; Park & Gretzel, 2007; Rita et al., 2019). Kim (2015) suggested that in social media services,

fulfillment refers to the degree to which the service provider promises dependable and accurate information is fulfilled.

2.2.3. Sense of Belonging

One of the early pieces of literature about Belonging in building a community can be seen in the research conducted by (McMillan & Chavis, 1986). A sense of Belonging acts as one of the building blocks of a Sense of Community (SOC), which is also known to impact satisfaction and commitment in the community (Burroughs & Eby, 1998). Not only affecting face-to-face communities, but SOC is also described as affecting virtual communities, similar to Discord as a virtual community provider platform. The feelings that form and become a building factor in virtual communities are known formally as a Sense of Virtual Community (SOVC) (Blanchard, 2008). Therefore, it can be concluded that Belonging is one of the important aspects of building a virtual community.

In recent studies, Belonging has been shown to positively affect satisfaction (Hung et al., 2019; Krishen et al., 2019; Sharabati et al., 2022). Furthermore, it is explained that a sense of belonging can influence individual involvement and dependence on a community or group. The study suggested that the sense of belonging has a positive effect on a person's motivation to use social media to interact with the digital community; the higher a platform and society provide an opportunity for each individual to be open and expressive, a sense of attachment from everyone involved in it will be formed (Raman, 2014).

2.2.4. User Satisfaction

Oliver (1999) defined satisfaction as a customer/user's cognitive assessment of the discrepancy between the expected performance quality and the received performance quality. Previous research has shown that e-service quality significantly impacts user satisfaction (Rita et al., 2019). This also aligns with other research that e-service quality is the primary determinant of user satisfaction (Demir et al., 2020; Irham et al., 2021; Sasono et al., 2021). In social media platforms, Sharabati et al. (2022) suggested that increasing the sense of belonging leads to the user satisfaction improvement.

Krishen et al. (2019) explained that differences in nationality affect the determinants of user satisfaction. Vietnamese people get higher satisfaction from system quality and emotional connection, while US people show higher satisfaction from information quality. Therefore, this research aims to determine the most significant determinant of Indonesian Discord user satisfaction in building digital communities.

2.2.5. Intention to Use

Intention to use refers to the user's willingness to continue exploring, publishing content, and remaining loyal to the same social media platform (Sharabati et al., 2022). A superior service quality suggests a positive relationship that leads to favorable behavioral intentions for the company (Udo et al., 2010).

Udo et al. (2010) suggested that service quality was proven to impact behavioral intention directly. Besides, it also indicated that the indirect impact of

web service quality on behavioral purposes (via customer satisfaction) seems slightly stronger for customers' behavioral preferences to use the e-service repeatedly. This finding is also supported by several other studies which prove that service quality and satisfaction has a positive impact on the intention to use (Lien et al., 2017; Nguyen et al., 2022; Sharabati et al., 2022; Wang et al., 2019).

Furthermore, research conducted by Lien et al. (2017) and Hossain & Kim (2018) in their case study of social media network service providers (SNS) proved that user satisfaction is positively correlated and a reasonable determinant of usage intentions. Based on the similarity of the SNS research objects, the usage intention variable can be examined to find out its relationship with Discord user satisfaction in Indonesia.

2.2.6. Evaluation of Higher-order Constructs with PLS-SEM

Higher-order constructs provide researchers with a framework for modelling structures in a more abstract dimension (higher-order components) and its more distinct sub-dimensions (lower-order components). It allows researchers to reduce relationships in a path model by summarizing the independent constructs in a higher-order construct, thus achieving model parsimony (simple models with a desired explanatory predictive power) (Polites et al., 2012).

There are several approaches to estimating higher-construct order in SEM; with the repeated indicators approach and the two-stage approach being the most prominent ones (Sarstedt et al., 2019). However, it becomes problematic when estimating reflective-formative or formative-formative higher-order constructs.

The reason is that PLS-SEM regresses the higher-order component on its lower-order components, resulting in the impossibility of any antecedent construct in the path model that is not part of the higher-order construct to explain any variance of the higher-order component and its path coefficient will come close to zero, or in this case is non-significant (Ringle et al., 2012; Sarstedt et al., 2019).

The embedded two-stage approach presents an alternative to evaluating the higher-order reflective-formative constructs (Ringle et al., 2012). Sarstedt et al. (2019) explained that the first stage resembles the repeated indicators approach, producing a non-significant path coefficient from the antecedent to the higher-order construct. However, the construct scores are kept as new variables instead of interpreting the model estimates. These scores will be used as indicators for the higher-order construct measurement model in the second stage.

2.2.7. PLS-SEM Model Evaluation

Statistical approach with PLS-SEM depends on the nature of the construct (Sarstedt et al., 2017). A model that includes reflectively measured constructs needs to be evaluated from their indicator loadings (reliability), internal consistency reliability, convergent validity, and discriminant validity. If it includes formatively measured constructs, they are evaluated from their convergent validity, collinearity, significance and relevance of indicator weights. Lastly, the structural model is assessed by examining their collinearity, coefficient of determination (R^2), predictive relevance (Q^2), significance, relevance, and effect size (f^2) of path coefficients.

2.2.8. Reflective Model Evaluation

The first evaluation in reflective models is to assess the indicator loadings. Indicator loadings reflect how much the original construct correlates to the derived factors (Gefen et al., 2000). It is considered acceptable if indicator loadings are higher than 0.5 and should ideally be 0.7, which suggests that the construct explains more than 50% of the indicator's variance, indicating satisfactory reliability (Hair et al., 2010; Sarstedt et al., 2014, 2017).

The next step is to assess the construct's internal consistency reliability. Internal consistency reliability refers to the extent to which indicators measuring the same construct are related (Hair et al., 2021b). This evaluation mainly involves Jöreskog's (1971) composite reliability, as shown in equation 1 below.

$$\rho_c = \frac{(\sum_{k=1}^K l_k)}{(\sum_{k=1}^K l_k) + \sum_{k=1}^K var(e_k)}$$

Equation 1. Jöreskog's (1971) Composite Reliability

General guidance is that higher composite reliability values indicate higher reliability levels. Values between 0.60 and 0.70 are considered acceptable in exploratory research, whereas values between 0.70 and 0.95 indicate satisfactory reliability (Hair et al., 2017). However, noticeably higher values (e.g., more than 0.95) suggest that the item questions are nearly identical and redundant, thus indicating a reliability issue.

Cronbach's alpha is an alternative internal consistency reliability measure, giving identical thresholds to the composite reliability (ρ_c). It is the lower bound of

internal consistency reliability, while composite reliability acts as the upper bound (Hair et al., 2021b; Sarstedt et al., 2017). Hair et al. (2021b) suggested a minimum value of 0.70 (or 0.60 in exploratory research), a recommended value ranging from 0.80 to 0.90, with a maximum of 0.95 to avoid indicator redundancy. The standardized form of Cronbach's alpha cited from (Sarstedt et al., 2017) can be seen in equation 2 below.

$$\text{Cronbach's } \alpha = \frac{K \cdot \bar{r}}{[1 + (K - 1) \cdot \bar{r}]}$$

Equation 2. Cronbach's alpha equation (Sarstedt et al., 2017)

The next measurement addressed the convergent validity of the reflective measurement models. Convergent validity refers to the extent of how closely related one measurement scale is to the other within the same construct that theoretically should be related (Krabbe, 2017). This evaluation can be conducted using average variance extracted (AVE) calculated from the mean squared loadings of each indicator affiliated with the construct. The recommended threshold for AVE is 0.50 or higher, which indicates that the construct explains 50% (or more) of the variance of its items (Hair et al., 2021b; Sarstedt et al., 2017). The equation of AVE can be seen in equation 3 below.

$$AVE = \frac{(\sum_{k=1}^K l_k^2)}{K}$$

Equation 3. Average Variance Extracted (Sarstedt et al., 2017)

The final evaluation assesses the reflective constructs' discriminant validity. Opposite to convergent validity, discriminant validity tests the construct

measurement that theoretically should not be highly correlated from one another. This evaluation aims to prove the distinctiveness of constructs measurement items and examine whether the items from the construct correctly measure the intended construct or if they unintentionally measure the other constructs (Urbach & Ahlemann, 2010). It also examines the degree of overlapping constructs (F. Hair Jr et al., 2014). In PLS-SEM, there are two traditional and popular discriminant validity measurements, the cross-loadings and Fornell-Larcker Criterion (Alnakhli, 2019; Sarstedt et al., 2014; Urbach & Ahlemann, 2010).

The first discriminant validity evaluation, cross-loadings, is considered more liberal (Henseler et al., 2009). Cross-loadings are obtained by determining the correlations of each latent construct's score with all the other items (Chin, 1998). A general recommendation for this approach is that a single construct indicator should have higher loadings on its construct compared to other constructs (Hair et al., 2017).

The Fornell-Larcker criterion suggests a comparison of the square root of AVE with the latent construct correlations (Fornell & Larcker, 1981). Specifically, to establish discriminant validity, the square root of each latent construct's AVE should be higher than the squared correlations with other latent constructs (Hair et al., 2017). This will indicate that each latent construct shares more variance with their respective measurement indicators than another group of latent construct indicators.

While the Fornell-Larcker criterion typically reveals collinearity problems in the inner model earlier in the model evaluation, there is an exception when formatively measured constructs are included. In this case, the AVE scores, which establish the basis of the Fornell-Larcker evaluation, do not pose a relevant measure for formative indicators (F. Hair Jr et al., 2014). Thus, collinearity evaluation in the inner model became crucial when dealing with formatively measured constructs.

2.2.9. Formative Model Evaluation

Formative constructs are evaluated differently from reflective constructs. This evaluation assessed the convergent validity, multi-collinearity, significance, and indicator weights test of formatively measured constructs.

Multi-collinearity test examines if two or more predictors are highly linearly related. Variance inflation factor (VIF) tests formative constructs' collinearity and determines if two or more indicators are too highly correlated (Hair et al., 2021a; Petter et al., 2007). A VIF value greater than five or above indicates a collinearity problem (Hair et al., 2021a; Sarstedt et al., 2017).

The next step is to evaluate the statistical significance and relevance of the formative construct's indicator weights. This evaluation can be conducted using the bootstrapping method. Bias-corrected and accelerated (BCa) is recommended as the confidence interval method for significance evaluation if the distribution of indicator weights is skewed (Hair et al., 2017). Otherwise, the percentile method should be used as the confidence interval method (Aguirre-Urreta et al., 2018). The *t*-value and *p*-value generated from bootstrapping can be used to assess the

significance of indicator weights. The t -value should be above 1.96 (two-tailed test) and the p -value below 0.05 for a 95% confidence interval (Hair et al., 2019, 2021a).

2.2.10. Structural Model Evaluation

The structural model evaluation focuses on evaluating the significance and relevance of path coefficients, followed by the model's explanatory and predictive power (Hair et al., 2021b). There are four criteria to evaluate the predictive capability of the model; 1) coefficient of determination (R^2), cross-validated redundancy (Q^2), effect size (f^2), and path coefficients) will be used to test the structural model (Sarstedt et al., 2017).

The coefficient of determination (R^2) measures how much exogenous constructs can explain endogenous constructs. A general recommendation of R^2 values 0.75, 0.50, and 0.25 in marketing research can be considered substantial, moderate, and weak (Hair et al., 2011). However, the R^2 values may differ depending on the research discipline. In consumer behavior research, R^2 values of 0.20 are considered high, and R^2 values of 0.75 are perceived as high in success driver studies.

Cross-validated Redundancy (Q^2) or Q-square test was used to test the predictive relevance of the endogenous construct. As a general recommendation, Q^2 values > 0 for a specific endogenous construct suggest that the path model has adequate predictive relevance to certain constructs (Sarstedt et al., 2017).

The effect size (f^2) test was conducted to measure the strength of the relationship between variables. Specifically, the effect size test was used to examine

the r-square changes when a specific predictor construct is removed from the model. As a general rule, f^2 values of 0.02, 0.15, and 0.35 can be interpreted as small, medium, and large effects, while a value below 0.02 can be considered there is no effect (Cohen, 1988; Sarstedt et al., 2017).

The last assessment is to examine the path coefficients. Path coefficients are evaluated regarding the direct effect in structural paths between the constructs based on the hypothesis made in this research. This evaluation aims to determine the significance and relevance of path coefficients.

A path coefficient can be considered significant at a 5% significant level (corresponds to a 95% confidence interval) if zero does not fall within the confidence interval. (Aguirre-Urreta et al., 2018; Hazra, 2017; Sarstedt et al., 2017). Hair et al. (2017) suggested using bias-corrected and accelerated (BCa) as the confidence interval method for significance evaluation if the distribution of indicator weights is skewed. Otherwise, it was suggested to use the percentile method to conduct bootstrap-based confidence intervals (Aguirre-Urreta et al., 2018). The bootstrapping feature in SmartPLS can be utilized to calculate the t -value and p -value of path coefficients, which indicates the path coefficient's significance. The recommended t -value is above 1.96 (two-tailed test), and the p -value is below 0.05 for a 95% confidence interval (Hair et al., 2019, 2021a). Regarding relevance, path coefficients usually range between -1 to +1, with coefficients closer to +1 suggesting a strong positive correlation and coefficients closer to -1 representing a strong negative correlation (Sarstedt et al., 2017).

2.2.11. SmartPLS

The data analysis software used in this study was SmartPLS version 4. SmartPLS is considered the most comprehensive and up-to-date software for a PLS-SEM study (Henseler, 2017; Sarstedt & Cheah, 2019). Sarstedt & Cheah (2019) further explained that it is also the most often used PLS-SEM software and has been applied across disciplines. SmartPLS's user-friendly design allows users to perform complex statistical analyses efficiently.