# INSTRUMENT VALIDATION OF WEBSITE QUALITY TO ATTRACT DONATION

<sup>1</sup>Sarina Yusuf, \*<sup>2</sup>Muhamad Shamsul Ibrahim, <sup>3</sup>Nan Zakiah Megat Ibrahim, <sup>4</sup>Suffian Hadi Ayub, <sup>5</sup>Mohamad-Noor Salehhuddin Sharipudin & <sup>6</sup>Nurzihan Hassim

<sup>1</sup> Universiti Pendidikan Sultan Idris, 35900 Tanjong Malim, Perak, Malaysia.

<sup>2</sup> Universiti Malaya, 50603 Kuala Lumpur, Malaysia.

<sup>3</sup> University Poly-Tech Malaysia, 56100 Kuala Lumpur, Malaysia.

<sup>4</sup> Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia.

<sup>5</sup> Universiti Utara Malaysia, 06010 Sintok, Kedah, Malaysia.

<sup>6</sup> Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia.

\*Corresponding author: mshamsul@um.edu.my

Received: 14.10.2022 Accepted: 25.01.2023

#### **ABSTRACT**

**Background and Purpose:** With the increasing scarcity of funds in Malaysia, effectively soliciting donations is crucial for the sustainability of non-profit organisations (NPOs). Many NPOs face challenges in raising sufficient funds to implement meaningful projects for societal benefit. The exploration of online factors influencing user decision-making on NPO websites has been slow to develop locally, partly due to limited interest in this area. To address this gap, it is imperative to develop a robust research instrument to identify key variables that drive users' interest in donating through NPO websites. This study was therefore conducted to identify and define the relevant variables and items for such an instrument.

**Methodology:** The study collected 269 responses from ten popular NPO website users. Their responses were recorded using the five-point Likert Scale questionnaire, ranging from strongly agree to strongly disagree. First, the study conducted a content validity test and a pre-test. The sample size was determined based on the SEM requirement. Finally, the responses were analysed using pooled confirmatory factor analysis to determine the instrument's reliability and validity.

446

**Findings:** Only seven variables were retained after the validity and reliability analysis, 43 out of 74 items. The result indicated that only information, system, service quality, perceived ease of use, and trust are relevant for the NPO to meet website user satisfaction and influence their decision to donate.

**Contributions:** The findings are essential as a guideline for developing a website that meets user preferences. The result also contributed to the website quality literature for the non-profit sector.

**Keywords:** Website quality, trust, satisfaction, non-profit organisation, technology acceptance model.

Cite as: Yusuf, S., Ibrahim, M. S., Megat Ibrahim, N. Z., Ayub, S. H., Sharipudin, M. S., & Hassim, N. (2023). Instrument validation of website quality to attract donation. *Journal of Nusantara Studies*, 8(1), 446-468. http://dx.doi.org/10.24200/jonus.vol8iss1pp446-468

## 1.0 INTRODUCTION

The non-profit organisation (NPO) has been classified based on its services, such as community service for the social, community, health, environment, and nature. The NPOs from various services solicit donations with one ultimate purpose, which is to create a better society. The phrases #frompeopletopeople #kitajagakita #rakyatjagarakyat are only famous whenever society faces an unfortunate event. However, the terms should be upheld at specific times and all the time.

When disaster strikes, it can be seen that many Malaysians are willing to give for the sake of helping others. Non-monetary and monetary contributions were abundant during this period. But, the Malaysian spirit of giving disappears when there is no disaster. The study believed that to maintain the momentum spirit of giving, it is necessary to identify donors' preferences. Soliciting donations has changed tremendously since the internet was introduced in the 1990s. The advancement of technology today offers a new way for NPOs to solicit donations. Thus, many NPOs try to utilise the internet to request a donation. Some have achieved glory, but many were stranded because the NPO is likely to develop a website that failed to serve its essential purpose (McMahon, Seaman, & Lemley, 2015).

Most NPOs still use a standard website to store information about their organisation and activities and share the website link through social media to attract donations. Despite the website's potential to meet the influential factors to encourage donation, many NPOs still fail to attract monetary and non-monetary contributions online. Moreover, compared to the profitmaking industry, NPOs are way behind in adapting to the current trend of technology (Diaz et al., 2013; Stone & Wilbanks, 2012). Therefore, a complete instrument is needed to validate

website users' preferences before developing an effective NPO website. Hence, the study objective is to validate the items used as a research instrument to measure suggested website characteristics.

## 2.0 LITERATURE REVIEW

The website term refers to a collection of web files on a particular subject, and the beginning file is called a home page (Multimedia Development Corporation, 2013). Thus, a website can consist of more than one page.

Several factors led to the website's potential as a communication medium to attract donations. As of January 2021, there are 4.66 billion active internet users worldwide. Asia has the highest number of internet users, with 2.3 billion users (Johnson, 2021). According to the Malaysian Communications and Multimedia Commission report in 2020, 88.7 per cent of the Malaysian population are internet users. The statistics indicate that almost everyone in Malaysia is using the internet. Therefore, it provides a more significant opportunity for the NPO, which has enormous Internet users, to reach potential donors directly. As a result, the NPO has an immense opportunity to promote its social goal to the public (Bilgihan & Bujisic, 2015). Thus, the NPO must take advantage of the website. A website is an ideal communication medium because it is suitable for sharing ideas, is easy to access, and reduces communication costs, travel, and operations (Sharma & Baoku, 2013). Besides, a website also allows an organisation to cater to user inquiries effectively (Sharma & Lijuan, 2015). For some organisations, the website is used for marketing purposes because of its ability to reach a broader community (Taddeo & Barnes, 2014).

The website's potential to attract donations relies on its quality. The term website quality is usually referred to as the form of web design, its reliability and fulfilment, privacy and security, and customer service (Kouser, Niazi, & Bakari, 2018). The definition indicates that website quality refers to the essential concepts that a website must have and be liked by Internet users. Thus, this study applied six quality dimensions from the Delone and McLean (D&M Model) and the Technology Acceptance Model (TAM). Both models are robust models for the information system study. According to Delone and McLean (2003), information, system, and service quality are critical dimensions to ensure information system success. The study perceived that success can be measured when the users are satisfied with the website and willing to contribute to the NPO. Thus, adequate knowledge is needed to increase satisfaction (Khalid, 2021).

Furthermore, the study has identified that the perceived usefulness (PU) and perceived ease of use (PEOU) from TAM are essential dimensions to be included in this study. TAM is also considered a robust model in information systems that predicts user acceptance of the computer-based system in various scenarios and organisational contexts. The study decided to include trust as a dimension to measure user satisfaction because trust has been repeatedly mentioned as a causal factor to website success, especially e-commerce (Kim, Ferrin, & Rhao, 2009). Trust also shows a significant relationship to ensure website user satisfaction (Shin et al., 2013).

Depleting the spirit to give among Malaysians is a sign of lacking love, sympathy, and rationale. This could threaten the country's efforts to uphold the Malaysia Family (Keluarga Malaysia) concept. The Malaysian Family concept emphasises cultivating kindness to help members in need (Malaysian Family Concept, 2021).

A caring society can be developed by nurturing the values of concern, tolerance, and the spirit to help. Thus, the study attempts to understand the effort made by the NPO to utilise the website to nourish the spirits of a caring society. The literature review showed many NPO website issues despite the low adoption rate with the current communication trend. For example, a study on the NPO website is less developed in a specific area, especially crowdsourcing (Gao, Barbier, & Goolsby, 2011), while others focus on social media (Nah & Saxton, 2013).

Other than that, the Malaysia Registration of Society (ROS) has reported an increasing number of NPOs registered since 2013. The increase could cause more significant competition among the NPOs to solicit monetary and non-monetary contributions. Besides, a report from the National for Voluntary Organisations 2004 indicated that many people were unwilling to donate due to trust issues (Sargeant, Ford, & West, 2006). As a result, many NPOs face financial problems and fund scarcity (Non-Profit Finance Fund, 2014). Therefore, NPOs must find new strategies to solicit donations (Mejova et al., 2014).

The study figured a functional website could be one of the solutions for NPOs to overcome their fund scarcity because NPO operations are based on public generosity. Like forprofit organisations, NPOs also require stable financial conditions to maintain their operations (Pinho & Macedo, 2006). Thus, the issue of how websites can be best used to increase the NPO website user's intention to donate needs to be addressed. It is essential to have assessment instruments with adequate and rigorous content and metrics to address the problem. It is found that relevant content and functions can influence attitudes towards the website (Koenig & Schlaegel, 2014).

Many instruments have been published recently to assess website effectiveness for-profit organisations. However, studies on how the NPO uses the website to attract donations are limited because many website quality studies have focused on the benefits of for-profit organisations. Thus, this research deemed a more structured study to categorise a suitable website dimension for rapid communication advancement. The missing updated sources are a shortcoming to identifying potential NPO website study gaps. Most of the studies were self-reported surveys for profit-making organisations. Table 1 indicates a brief review of the instruments used in recent years.

Table 1: Table for comparison study to measure website quality

Authors	Website quality measures	Type of Business	Methodology	Statistical measures	Sample Origin (country)
Thaker, Thaker, & Pitchay (2018)	Perceived ease of use, Perceived usefulness, intention to use crowd funding apps	Non-profit organisation	Survey	SEM	Malaysia
Hasnan, Mohamad, Zainuddin, & Abidin (2016)	The board size, board members having professional qualification, board members with political connections, frequency of meeting, and website availability	Non-profit organisation	Survey	Correlation	Malaysia
Sharma and Lijuan (2015)	E service quality,	Ecommerce	Survey	SEM	Nepal
Yu and Zhao (2014)	Delone and McLean Model	Agriculture	Survey	AHP	China
Akrimi and Khemakhem (2014)	Website Q, Website Personality Consumer Satisfaction	E-Commerce	Survey	SEM	Tunisia
Ferreira, de Freitas, Nunes, Giovanni (2014)	Willingness to trust, perceived operational competence, security of investment, trust, satisfaction	Finance	Survey	CFA	Brazil
Winnie (2014)	Website quality, e- loyalty, trustworthiness	E-commerce	Survey	SEM	Malaysia
Uzunoglu & Misci Kip (2013)	Dialogic communication	Non-profit organisation	Content analysis	Frequency	Turkey
Xu, Benbasat, and Centefelli (2013)	Wixom and Todd Model	Computer	Survey	SEM	Canada
Sriramesh, Rivera- Sanchez, and Soriano, (2012)	Interactive and social media features, relationship building features	Non-profit organisation	Content analysis	Frequency	Singapore
Sommerfeldt, Kent & Taylor (2012)	Dialogic features	Non-profit organisation	Interview		United State
Shier & Handy (2012)	Donor characteristic, perceptions of the internet, characteristic of the website, perceptions	Non-profit organisation	Survey	Regression	India

	of related organisation,				
	influence of others,				
	socio-demographic,				
	willingness to donate				
	online				
Lee and Kozar	Website usability	E-Commerce	Survey	SEM	
(2012)					
Belanche,	Website usability,	Bus Ticket	Survey	CFA	Spain
Casalo´and	consumer satisfaction,				
Guinalı'u (2012)	intention to use				
Green and Pearson	Website usability,	E-Commerce	Survey	SEM	United State
(2011)	Technology Acceptance				
	Model (TAM)				
Lee & Wu (2011)	E-service Q, Technology	Airline Ticket	Survey	SEM	Taiwan
	Acceptance Model				
	(TAM)				
Gregg & Walczak	Website Quality, Trust,	Auction	Questionnaire	SEM	USA
(2010)	Intention to transact,				
	Price premium				
Yang & Taylor,	Web presence	Non-profit	Content analysis	Frequency	China
(2010)		organisation			
Ingenhoof &	Dialogic Communication	Non-profit	Questionnaire	Frequency	German and
Koelling (2010)		organisation			Switzerland
Zhou, Lu, and	Website design quality,	Books and CDs	Questionnaire	AVE	
Wang (2009)	Service quality				
Zhou and Zhang	Website Quality,	E-Commerce	Questionnaire	SEM	China
(2009)	Technology Acceptance				
	Model (TAM), Trust,				
	Satisfaction				
Liang and Chen	Website Quality,	Finance	Questionnaire	SEM	Taiwan
(2009)	Customer satisfaction,				
	customer trust,				
	Relationship				
	Performance				
Greenberg &	Dialogical	Non-profit	Content analysis	Frequency	Canada
MacAulay (2009)	communication	organisation	•		
Kuan, Bock, &	Website Quality (Delone	Travelling	Questionnaire	Multiple	
Vathanophas	and Mclean Model),	C	-	regression	
(2008)	Intention of initial			-	
	purchase, the intention of				
	continued purchase.				

Castan~eda,	Website Acceptance	Health	Questionnaire	LISREL	USA and UK
Mun~oz-Leiva and	Model				
Luque (2007)					
Law and Cheung	Website Quality	Hotel	Questionnaire	T-Test	
(2006)					
Cao, Zhang, and	Website Quality,	Book	Questionnaire	Mean	USA
Seydel (2005)	Technology Acceptance				
	Model (TAM)				
Yeon, Choi &	Media relations, donor	Non-profit	Content analysis	Chi-Square	USA
Kiousis (2005)	relations, volunteer	organisation		and ANOVA	
	relations				
Kang & Norton	Grunig's two-way	Non-profit	Content analysis	Frequency	USA
(2004)	symmetrical	organisation			
	communication model				

The first limitation of previous research on website quality questionnaires is most of the past research only identifies a general measure for the profit-making website and available attributes of the NPO website. Therefore, it isn't easy to find a study in the local context concerning the NPO website user's opinion of the local NPO website's current features. Hence, it is challenging to find a solution to the problem.

The second limitation is the reviewed self-reports. Most website quality studies focus on for-profit organisations to determine the essential website factors that influence website user intention to purchase or for the actual purchase. However, the study identifying website users' intention to donate is still limited (refer to Table 1).

Lastly, the methodology used is a third limitation of the previously published self-reports (Refer to Table 1). Most website studies for NPOs focus on content analysis by identifying existing website quality features available on the NPO website. The present study aims to examine the NPO website user's opinions on the existing NPO website features, which are considered essential to influence the website user's decision-making process. Therefore, a valid and reliable instrument in the context of Malaysia is needed.

The study adopted items from the previous instruments created by Xu et al. (2013), Chen, Lune, and Queen (2013), Green and Pearson (2011), Cao et al. (2005), Wu et al. (2011), and Siddiqi (2011). The selected items were adapted in the context of NPO website quality research to assess how NPO website quality relates to NPO website users' willingness to donate. The present study also intends to overcome the main methodological and content limitations of the published questionnaires for the Malaysia NPO website quality assessment.

The study may contribute to the existing definition of constructs related to website quality, its types, and its impact on the relevant actions by providing a valid and reliable measure to be used in the industry and research.

In the case of alarming social issues, the lower spirit of sharing and donating may hurt Malaysia's unity. Thus, it is imperative to have instruments that can enhance the spirit of care and togetherness with the greatest validity and reliability. The instruments would serve as a guideline for the NPO to develop or revamp its website to collect donations. Individually, the instrument would serve as a guide to embark on a new donation project. Thus, the study posited that the Delone and Mclean model and the Technology Acceptance Model are the best models for understanding the NPO website user preference. The model consists of seven website qualities correlated to each other (refer to Figure 1).

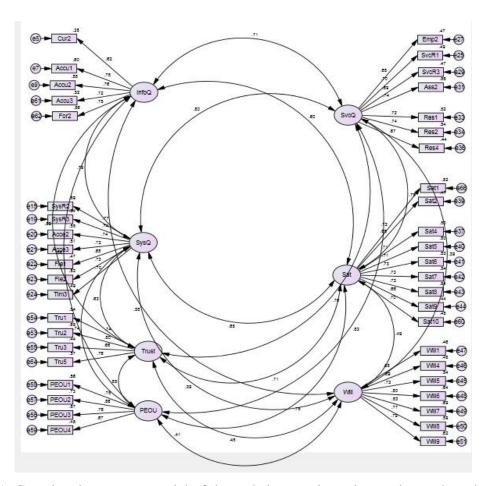


Figure 1: Correlated construct model of the website user intention to donate based on NPO website quality

## 3.0 RESEARCH DESIGN

This study was designed as quantitative research, using a survey method to collect data. A self-administered questionnaire was used as a research instrument to gain feedback from 200 respondents. Hair et al. (2014) suggested that 200 responses meet the confirmatory factor analysis test requirement and the measurement model in AMOS (Analytical Moment of Structure). The respondents were selected through purposive sampling and narrowed down only to the NPO website users. The study analysed 269 NPO website user responses from ten popular NPOs in Malaysia. The NPOs helped blast the questionnaire to their website users.

The nomination for the Putra Brand Awards determines a popular NPO. The award recognises organisations' brand building and is measured by consumer preference. The rationale for selecting respondents from the NPO award listing is that the website's ranking is an important indicator to determine the quality of a website (Davidavičienė & Tolvaišas, 2011). Also, the NPO's reputation is one factor influencing users to donate (Snipes & Oswald, 2010). Thus, the study deemed that using popular NPO is a relevant approach. In addition, a similar practice was also applied by Diaz et al. (2013) to use popular NPO in their study. It is acceptable because a well-known NPO would receive higher contributions than the less popular NPO (Gordon, Knock, & Neely, 2009; Snipes & Oswald, 2010).

The website quality questionnaire, which consists of 43 items, is self-reported and represents the NPO website users' intention to donate based on the NPO website quality. The respondent marked their response on 27 items of website quality, which they agreed on as an important quality construct to attract them to donate. The respondents' feedback is recorded using a 5-point Likert-type scale (1 – Strongly disagree, 2 - disagree, 3 – somewhat agree, 4 – agree, 5 – strongly agree). Salim and Abdullah (2017) also applied a similar measurement in their instrument development to allow respondents to express the extent to which they agree or disagree.

The questionnaire also comprises nine items to measure website user satisfaction when they browsed the NPO website. The respondents' feedback is also recorded using the 5-point Likert-type scale (1-Not at All Satisfied, 2-Slightly Satisfied, 3-Moderately Satisfied, 4-Very Satisfied, 5-Extremely Satisfied). Besides, seven items to describe user willingness to donate mainly signify user intention to donate. The items are rated on a 5-point Likert-type scale (1-Strongly disagree, 2-Disagree, 3-Slightly agree, 4-Agree, 5-Strongly agree).

A survey using questionnaires is a popular and reliable method to get feedback from the respondents. Thirty items were removed from the NPO website quality questionnaire for the final construction of the questionnaire. The original NPO website quality questionnaire has 74 items based on the Delone and Mclean Model and TAM with six NPO website quality constructs. Confirmatory factor analysis (CFA) yielded only one construct that was found unfit. CFA was used to confirm the theoretical factor structure because the items involved in this research were adopted from previous researchers. CFA was employed separately for every variable to evaluate the adequacy of the generated items representing their variable (Mohammed & Sharipuddin, 2017).

The NPO website quality questionnaire was first designed for the data collection procedures, and relevant NPOs were selected. Then, the study collaborated with the NPO to blast the questionnaire to their volunteers. The study used an online survey because it is suitable for gathering information from various geographical areas (Dhaha & Igale, 2014). Hence, this study employed this method because the respondents are scattered within and outside the Klang Valley. Moreover, the survey can quickly obtain accurate data from the selected population-representative (Periyayya et al., 2016).

The research objective and procedures were clearly explained to the NPO management representative, including the anonymity and voluntary participation in the survey. The potential respondents were also informed of their participation anonymity, confidentiality, and voluntary nature. In general, the respondents had two weeks to complete the survey. However, the study allowed time flexibility for the respondents to answer the survey to encourage more participation. A pre-notification email was sent to inform the respondents of the study. Henceforth, the questionnaire was emailed to the respondents after three days. After a week, a follow-up email was sent to the respondents to remind them of the survey.

This study used the Analytical Moment of Structure (AMOS) to analyse the construct dimensionality and normality. As there are adequate theoretical and empirical supports to theorise the dimensions that constitute the NPO website quality construct, the study applied CFA to examine the construct dimensionality of the scale, similar to the previous researchers such as Hidayat et al. (2021), Ferreira et al. (2014), Xu et al. (2013), and Sharma and Baoku (2013).

The study determined data normality based on the suggested value for skewness and kurtosis by Tabchnick and Fidell (2007) and Watson (2018). Data is considered normal if the skewness value is in the +/- 2 range while the Kurtosis value is in the +/- 7 range. Based on the normality test, the skewness is at -0.677 to 0.162, and Kurtosis is between -.822 to 0.764. Thus, the data is considered normal in this research. To determine the degree of fit of the tested models, the study used root mean square error of approximation (RMSEA) and goodness fit index (GFI) from the absolute fit category, chi-square/df (X²/degree of freedom) from

parsimonious fit category and comparative fit index (CFI) from incremental fit category. The model is considered fit when RMSEA value  $\leq$  .08, GFI value  $\geq$  .9,  $X^2/df$  value  $\leq$  5.0, and CFI value  $\geq$  .9 (Hair et al., 2010; Awang, 2015).

The model's discriminant validity was determined by analysing the correlation between its constructs. The construct is considered discriminant valid, with no possibilities of redundancy and collinearity, only if the r value is < 0.85 (Kline, 2015; AlHamad et al., 2021). After ascertaining the model fit and discriminant validity, each item factor loading value is determined. The loading value for each factor is suggested to be higher than 0.5 to be considered acceptable for use (Hair et al., 2014; Salim & Abdullah, 2017). Therefore, any items that fail to meet the factor loading value requirement will be deleted.

Next, the study performed a reliability test to determine the item's internal consistency. A variable is considered satisfactorily reliable and internally consistent when the value indicated by the test is between 0.7 and 0.9 (Masrom, Idris, & Jusoh, 2021; Hair et al., 2014; Jie, Zu Yee, & Wok, 2017; Rauf, Hamid, & Ishak, 2016).

#### 4.0 ANALYSIS AND DISCUSSION

The conceptual model's initial analysis includes the validity and reliability assessment, which includes factor analysis, discriminant validity, factor loading, and item reliability. The factor analysis is essential to define the construct structure involved in this research. Determining the construct validity and reliability and indicating the variable relationship is important. The study determines a good model fit for the data before the validity and reliability test. Table 2 shows that the construct meets the fit indices value. The items in each construct are significantly related and free of measurement error. Each item is appropriately converged and only explained by one construct.

Table 2: Measurement model fit

Name of category	<b>Model Fit Indices</b>	Recommended Value	Fit indices value
Absolute Fit	RMSEA	<=.08	.053
	GFI	>=.9	.807
Parsimonious Fit	$X^2/df$	< 5.0	1.757
Incremental Fit	AGFI	>=.9	.782
	CFI	>=.9	.904
	NFI	>=.9	.804
	TLI	>=.9	.897

The study ran pooled measurement model analysis to determine whether the constructs are adequately discriminant. The investigation is essential to verify that the construct is not theoretically related. The study found that each construct has a clear distinct value due to the low correlation between constructs, which is between 0.411 and 0.851 (r < .85).

The study also analysed factor loading to ensure only the relevant items are measured for a specific construct. In the approved model fit, the standardised items are presented in table 3. The selected items are only a factor loading value higher than 0.60.

Table 3: Factor loadings value

No	Items	Factor
		Loading
		(> <b>0.5</b> )
	Information Quality	
1.	The website produced the most recent information on current issue upon request	.648
2.	The website provided me correct information of the current issue	.779
3.	The website provided me with error-free information on the current issue.	.740
4.	The website provided accurate information for the current issue.	.721
5.	The information provided on the website was properly laid out to inform the current issue.	.745
	System Quality	
6.	The website system was reliable for the current issue selection.	.801
7.	The operation of website system was dependable for the current issue selection.	.743
8.	The website system was accessible at any time for current issue search.	.737
9.	The website system was easy to access during the process to search for the current issue.	.702
10.	The website system was flexible to meet my variety needs during the current issue search.	.676
11.	The website system was flexible to adjust to new demand or conditions during the current	.711
	issue search.	
12.	The website was fast to answer my request during the current issue search.	.683
	Service Quality	
13.	The website had my best interest in mind during the process to search for the current issue.	.685
14.	The website was able fulfilled its promise.	.706
15.	The website was able to provide its service as promised.	.709
16.	I felt safe when I used the website.	.722
17.	The website responded well to provide me options during the process to search for the	.718
	current issue.	
18.	The website gave me the prompt response to my inquiries during the process to search for	.740
	the current issue.	
19.	The website responded to the error I have committed during the process to search for the	.660
	current issue.	

	Perceived Ease of Use	
20.	It was easy to ask the website to do what I want.	.753
21.	It was easy to search for the current issue on the website.	.855
22.	It was easy to access the website system to get the current issue.	.770
23.	It only took a while to download the current issue.	.655
	Trust	
24.	I could access the website from the latest technology device.	.734
25.	The website is dependable.	.842
26.	The website provided prompt response to my inquiries.	.629
27.	I felt confident with the website	.743
	Satisfaction of Using NPO Website	
28.	The current information provided by the website.	.712
29.	The website system to search for the current issue.	.702
30.	The website easiness.	.712
31.	The website usefulness.	.707
32.	The website trustworthiness.	.717
33.	The website reliability.	.728
34.	The website empathies.	.747
35.	The website responsiveness.	.660
36.	The website assurance.	.697
	Willingness to Donate	
37.	I am willing to use the NPO website to donate.	.667
38.	I am willing to donate RM 10.	.700
39.	I am willing to donate more than RM 10.	.743
40.	I am willing to donate to NPO in the social sector.	.807
41.	I am willing to donate to NPO in the health sector.	.830
42.	I am willing to donate to NPO in the environmental sector.	.757
43.	I am willing to donate to NPO from any sector.	.783

In addition, the study runs a reliability analysis to measure internal consistency in scale items. Reliability and internal consistency are essential to measure how well the research instrument can measure. Table 4 shows that each construct shows a satisfactory reliability value. A value between 0.60 and 0.70 is considered acceptable, and a value in the range of 0.70 to 0.90 is considered satisfactory (Nunnally & Bernstein, 1994; Cronbach, 1951).

Table 4: Reliability value

Items	Reliability value (CR > 0.7)
Trust	.828
Perceived Ease of Use	.846
Information Quality	.884
Service Quality	.886
System Quality	.899
User willingness to donate	.903
Satisfaction of using NPO website	.909

The questionnaire assesses the NPO website user agreement on certain NPO website quality. The results indicated that the NPO website quality offers adequate statistical guarantees to meet the research purpose.

The model that best represents the data gained, with satisfactory discriminant validity, is one made up of seven factors (Information quality, system quality, service quality, perceived ease of use, trust, the satisfaction of using the NPO website, and user willingness to donate), in which 31 items were removed from 74 in total. However, perceived usefulness is removed from the model due to failure to meet the fit indices value. The perceived usefulness removal is expected because users prefer easy-to-use websites that allow exchanging ideas and low operation costs (Sharma & Baoku, 2013). Thus, the current finding suggests that the NPO website quality model consists of different constructs yet is significantly interrelated.

The NPO website quality questionnaire scores correlated every item statistically to measure a specific construct and were deemed appropriately converged. Hair et al. (1998) suggest that the factor loading value should be more than 0.5 to indicate high convergent validity. While discriminant validity indicated that every construct was different from one to another. Thus according to Kline (2015), for a viable model, the estimated correlations between the variables were not too high (e.g., r < .90 in absolute value) to show discriminant validity. In addition, the construct reliability was acceptable and moderately high. The value of Cronbach's alpha coefficient ranges from 0 to 1 and has been widely used to determine reliability in quantitative methods and estimate a scale's internal consistency (Cronbach, 1951). All dimensions in the survey questionnaire must exceed 0.8 to be classified as reliable (Fan & Tsai, 2010).

The present work represents a contribution to the study of NPO website quality. The NPO questionnaire overcomes some methodological and content limitations related to NPO website quality in the previous study. The NPO website quality questionnaire was validated

with a broad sample of NPO website users in the methodological aspects. The analysis was based on convergence and discriminant validity and model fit test. The questionnaire structure shows a good fit for the empirical data attained.

Regarding the content, the NPO website quality questionnaire provides five constructs of NPO website quality and two outcomes (satisfaction of using the NPO website and user willingness to donate). Compared with other website quality questionnaires, the study included a new construct. The NPO website quality questionnaire includes trust as a new construct to be studied as part of website quality, especially for NPO website quality study. In addition, the study also included the satisfaction of using the NPO website as a mediator to identify if satisfaction elements could distort to enhancing website user intention or action. In comparison, with the website quality model for profit sector, the final version of the NPO website quality questionnaire has removed 31 items to represent the internal consistency of the questionnaire and to improve the model fit of relevance constructs from the data obtained.

This study also contributed to theoretical and practical implications. From the theoretical perspective, it contributes to the conceptual limits of the construct. The finding supports the hypotheses of the existing theory and adds to the empirical literature of the study. Notably, it contributes to the conceptual framework and the suitability of the NPO website quality and items included in the NPO website quality questionnaire. Researchers, website developers, and educators have available assessment tools and guidelines to be applied, encoded, and analysed from the practical aspects. Apparently, the available tool promised timesaving and cost with adequate matric guarantees. In addition, the instrument is useful to identify a quality NPO website that can be associated with user satisfaction of using the NPO website and their intention to donate.

Thus, the finding contributes to the NPO website quality study. Despite that, the study found three limitations. First, the NPO website quality is a self-report instrument, so there is a probability that the results will be affected by response bias. The respondents would respond because of the intrinsic values of the NPO. It occurred because many of the respondents are volunteers with the NPO. For a future study, the sincerity scale could be included. Second, the questionnaire has been tested with a wide-ranging and randomly selected sample but for specific NPO. Third, it is challenging to get the NPO's attention to participate in this study unless a donation is made. Lastly, the opportunity for this research to access the NPO database is limited due to the Personal Data Act 2010. Thus, the researcher depends on a third party to blast the survey. Hence, the study should obtain responses from diverse backgrounds in the future.

## 5.0 CONCLUSION

In recent years, many studies of website quality have been published. The majority of the study focuses on profit-making instead of non-profit making websites. The studies have contributed to the present research for NPO website quality assessment. The previous research also addresses the methodological and content-related limitations that the current study attempted to overcome through better design and statistical validation. The instrument was validated in a wide sample of NPO website users. The analysis used steps in factorial analysis, convergence and discriminant validity, and internal consistency for reliability tests. The instrument provides measures for relevant website quality applicable to NPO websites and two essential outcomes related to website user satisfaction and their intention to donate. The dimensions are derived from the popular information system model, the Delone and Mclean model, and TAM, which most studies applied to study the profit-making website. The result from the present study indicated all the website quality constructs in this study shows better goodness of fit indices except for perceived usefulness.

The validation of the NPO website quality questionnaire contributes to the theoretical development of the field of study, as it helps define NPO website quality and its relevance construct. In this sense, the research findings support the existing information system model. However, the present study's application focuses on the non-profit-making sector. Therefore, it differs from the previous research specific to the profit-making sector. From a practical perspective, the NPO website quality questionnaire offers a valid and reliable measure of website quality for the non-profit sector. This instrument allows the website developer to use the instrument as a guideline to create a website. A new effective website is ready to be used by the NPO to meet the objective of the establishment. Also, the instrument permits the public relations practitioner to assess the NPO website's effectiveness as a medium to solicit a contribution.

# **REFERENCES**

- Akrimi, Y., & Khemakhem, P. R. (2014). An analysis of perceived usability, perceived interactivity and website personality and their effects on consumer satisfaction. *International Journal of Management Excellence*, 2(1), 227-236.
- AlHamad, M., Akour, I., Alshurideh, M., Al-Hamad, A., Kurdi, B., & Alzoubi, H. (2021). Predicting the intention to use google glass: A comparative approach using machine learning models and PLS-SEM. *International Journal of Data and Network Science*, 5(3), 311-320.

- Awang, Z. (2015). SEM made simple, A gentle approach to learning structural equation modeling. MPWS Rich Publication Sdn. Bhd.
- Belanche, D., Casalo'L.V., & Guinali'u, M. (2012). Website usability, consumer satisfaction and the intention to use a website: The moderating effect of perceived risk. *Journal of Retailing and Consumer Services*, 19(2012), 124–132.
- Bilgihan, A., & Bujisic, M. (2015). The effect of website features in online relationship marketing: A case of online hotel booking. *Electronic Commerce Research and Applications*, 14(4), 222-232.
- Cao, M., Zhang, Q., & Seydel, J. (2005). B2C e-commerce web site quality: An empirical examination. *Industrial Management & Data Systems*, 105(5), 645-661.
- Castañeda, J. A., Muñoz-Leiva, F., & Luque, T. (2007). Web acceptance model (WAM): Moderating effects of user experience. *Information & Management*, 44(4), 384-396.
- Chen, K. K., Lune, H., & Queen, E. L. (2013). How values shape and are shaped by nonprofit and voluntary organisations: The current state of the field. *Nonprofit and Voluntary Sector Quarterly*, 42(5), 856-885.
- Cronbach, L. J. (1951). Test "reliability": Its meaning and determination. *Psychometrika*, 12(1), 1-16.
- Davidavičienė, V., & Tolvaišas, J. (2011). Measuring quality of e-commerce websites: Case of lithuania. *Economics and Management*, 16(1), 723-729.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A Ten-Year Update. *Journal of Management Information Systems*, 19(1), 9-30.
- Dhaha, I. S. Y. A., & Igale, A. B. (2014). Motives as predictors of Facebook addiction: Empirical evidence from Somalia. *The Journal of the South East Asia Research Centre for Communication and Humanities*, 6(2), 1-22.
- Diaz, E., Blasquez, J. J., Molina, A., & Martin-Consuegra, D. (2013). Are the non-governmental organisations' websites effective? *Qualitative Market Research: An International Journal*, 16(4), 370-392.
- Fan, W.-S., & Tsai, M.-C. (2010). Factors driving website success-the key role of internet customisation and the influence of website design quality and internet marketing strategy. *Total Quality Management and Business Excellence*, 21(11), 1141-1159.
- Ferreira, J. B., de Freitas, A. S., Nunes, D. C. G., & Giovannini, C. J. (2014). Factors affecting satisfaction in online financial transactions: A study of brazilian home brokers. *Revista Brasileira de Gestão de Negócios*, 16(51), 257-276.

- Gao, H., Barbier, G., & Goolsby, R. (2011). Harnessing the crowdsourcing power of social media for disaster relief. *IEEE Intelligent Systems*, 26(3), 10–14.
- Greenberg, J., & MacAulay, M. (2009). NPO 2.0? Exploring the web presence of environmental non-profit organisations in Canada. *Global Media Journal*, 2(1), 63-68.
- Green, T. D., & Pearson, J. M. (2011). Integrating website usability with the electronic commerce acceptance model. *Behaviour and Information Technology*, 30(2), 181-199.
- Gregg, D. G., & Walczak, S. (2010). The relationship between website quality, trust and price premiums at online auctions. *Electronic Commerce Research*, *10*(2010), 1-25.
- Gordon, T. P., Knock, C. L., & Neely, D. G. (2009). The role of rating agencies in the market for charitable contributions: An empirical test. *Journal of Accounting and Public Policy*, 28(2009), 469-484.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis*. Prentice hall.
- Hair, J. F. Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2010). *Multivariate data analysis with reading*. Prentice-Hall.
- Ingenhoof, D., & Koelling, A. M. (2010). Website as a dialogic tool for charitable fundraising NPOs: A comparative Study. *International Journal of Strategic Communication*, 4(1), 171-188.
- Jie, C. T., Zu Yee, E. W., & Wok, S. (2017). Predicting factors of job satisfaction through organizational culture: A case of Malaysian private learning institution. *Jurnal Komunikasi: Malaysian Journal of Communication*, 33(3), 37-54.
- Johnson, J. (2021, September 10). Worldwide digital population as of January 2021. *Statistica*. https://www.statista.com/statistics/617136/digital-population-worldwide/
- Hasnan, S., Mohamad, M., Zainuddin, Z. N., & Abidin, Z. Z. (2016). Corporate governance factors affecting donation: Evidence from charitable organizations in Malaysia. *International Journal of Economics and Financial Issues*, 6(6S),149-153.
- Hidayat, R., Qudratuddarsi, H., Mazlan, N. H., & Zeki, M. Z. M. (2021). Evaluation of a test measuring mathematical modelling competency for Indonesian college students. *Journal of Nusantara Studies*, 6(2), 133-155.
- Kang, S., & Norton, H. E. (2004). Non-profit organisation' use of the world wide web: Are they sufficiently fulfilling organisational goals? *Public Relations Review*, 30(2004), 279-284.

- Khalid, N. M. (2021). Resilience, perceived social support, and life satisfaction among Malaysian college students. *Journal of Nusantara Studies*, 6(2), 21-40.
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2009). Trust and satisfaction, two stepping stones for successful E-Commerce relationships: A logitudinal exploration. *Journal Information System Research*, 20(2), 2337-257.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford Publications.
- Koenig, N., & Schlaegel, C., (2014). Effects of design characteristics on corporate blog acceptance. *Management Research Review*, 37(4), 409-440.
- Kouser, R., Niazi, G. S. K., & Bakari, H. (2018). How does website quality and trust towards website influence online purchase intention? *Pakistan Journal of Commerce and Social Sciences*, 12(3), 909-934.
- Kuan, H., Bock, G., & Vathanophas, V. (2008). Comparing the effects of website quality on customer initial purchase and continued purchase at e-commerce websites. *Behaviour and Information Technology*, 27(1), 3-16.
- Law, R., & Cheung, C. (2006). A study of the perceived importance of the overall website quality of different classes of hotels. *Hospitality Management*, 25(2006), 525-531.
- Lee, Y., & Kozar, K. A. (2012). Understanding of website usability: Specifying and measuring constructs and their relationships. *Decision Support System*, 52(2012), 450-463.
- Lee, F.-H., & Wu, W.-Y. (2011). Moderating effects of technology acceptance perspectives on e-y formation: Evidence from airline websites in Taiwan. *Expert Yan Systems with Applications*, 38(2011), 7766-7773.
- Liang, C. J., & Chen, H. J. (2009). A study of the impacts of website quality on customer relationship performance. *Total Quality Management*, 20(9), 971-988.
- Malaysian Family Concept. (2021, October 8). Malaysian family's concept outlines three characteristics, 20 values. *The Star.* https://www.thestar.com.my/news/nation/2021/10/08/039malaysian-family039-concept-outlines-three-characteristics-20-values
- Masrom, U. K., Idris, M., & Jusoh, Z. (2021). Dual Language Programme (DLP): Mediating effects of readiness, interest and confidence on students' satisfaction. *Journal of Nusantara Studies*, 6(2), 1-20.
- Mohammed, R., & Sharipudin, M. N. (2017). An integrated model to measure Organization-Public Relationship (O-PR) and reputation practises in Malaysian universities. *Jurnal Komunikasi: Malaysian Journal of Communication*, 33(3), 196-213.

- McMahon, D., Seaman, S., & Lemley, D. A. (2015). The adoption of websites by non-profits and the impact on society. *Technology in Society*, 42(1), 1-8.
- Mejova, Y., Weber, Y., Garimella, V. R. K., & Dougal, M. C. (2014). Giving is caring: Understanding donation behaviour through email. *Paper presented at CSCW 2014 Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing* (pp. 1297–1307). ACM Digital Library.
- Multimedia Development Corporation. (2013). Malaysia government portals and website assessment 2013. http://www.mampu.gov.my/documents/10228/47243/Criteria2013.pdf/d3a98ada-1746-42e8-b539-d7d3fcbfde55
- Nah, S., & Saxton, G. D. (2013). Modeling the adoption and use of social media by non-profit organisations. *New Media & Society*, *15*(2), 294-313.
- Non-Profit Finance Fund. (2014). 56% of America's non-profits can't meet demand; Worst shortfall in 6 years of annual non-profit finance fund survey. *PR Newswire*. https://www.prnewswire.com/news-releases/56-of-americas-nonprofits-cant-meet-demand-worst-shortfall-in-6-years-of-annual-nonprofit-finance-fund-survey-254169911.html
- Nunnally, J. C., & Bernstein, I. H. (1994). The assessment of reliability. *Psychometric Theory*, 3(1), 248-292.
- Periyayya, T., Nair, G. V., Shariff, R., Roland, Z., & Thanaseelan, D. (2016). Young adult malaysian consumers' attitude and purchase intentions of CSR supported grocery brands. Search Journal of the Southeast Asia Research Centre for Communications and Humanities, 8(1), 56-77.
- Pinho, J. C., & Macedo, I. M. (2006). The benefits and barriers associated with the use of the internet within the non-profit sector. *Journal of Nonprofit & Public Sector Marketing*, 16(1/2), 171-193.
- Rauf, A. A., Hamid, N. A., & Ishak, M. S. (2016). Modelling the effect of access to information, political interest and policy satisfaction on youth online political participation in Malaysia. *Jurnal Komunikasi: Malaysian Journal of Communication*, 32(2), 317-340.
- Sargeant, A., Ford, J. B., & West, D. C., (2006). Perceptual determinants of nonprofit giving behavior. *Journal of Business Research*, *59*(2), 155-165.

- Salim, N. A. M., & Abdullah, M. Y. (2017). Measuring reliability and validity of instrument: The dimensions of advertising literacy in determining the advertising literacy index. *Jurnal Komunikasi: Malaysian Journal of Communication*, 33(1), 280-293.
- Sharma, G., & Baoku, L. (2013). Customer satisfaction in web 2.0 and information book technology development. *Information Technology & People*, 26(4), 347-367.
- Sharma, G., & Lijuan, W. (2015). The effects of online service quality of e-commerce websites on user satisfaction. *The Electronic Library*, *33*(3), 468-485.
- Shier, L. M., & Handy, F. (2012). Understanding online donor behavior: The role of donor characteristics, perceptions of the internet, website and program, and influence from social networks. *International Journal of Nonprofit and Voluntary Sector Marketing* 17(2012), 219-230.
- Shin, J. I., Chung, K. H., Oh, J. S., & Lee, C. W. (2013). The effect of site quality on repurchase intention in Internet shopping through mediating variables: The case of university students in South Korea. *International Journal of Information Management*, 33(3), 453-463.
- Snipes, R., & Oswald, S. (2010). Charitable giving to not-for-profit organisations: Factors affecting donations to non-profit organisations. *Innovative Marketing*, *6*(1), 73-80.
- Sriramesh, K., Rivera-Sanchez, M., & Soriano, C. (2012). Websites for stakeholder relations by corporations and NPO, a time lag study in Singapore. *Journal of Communication Management*, 17(2), 122-139.
- Sommerfeldt, J. E., Kent, M. L., & Taylor, M. (2012). Activist practitioner perspectives of website public relations: Why aren't activist websites fulfilling the dialogic promise? *Public Relations Review*, 38(2012), 303-312.
- Stone, W. S., & Wilbanks, J. (2012). Transparency and accountability: A look at non-profit internet website content. *Insights to a Changing World Journal*, *3*(1), 79-86.
- Siddiqi, K. O. (2011). Interrelations between service quality attributes, customer satisfaction and customer loyalty in the retail banking sector in Bangladesh. *International Journal of Business and Management*, 6(3), 12-36.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Allyn and Bacon.
- Taddeo, C., & Barnes, A. (2014). The school website: Facilitating communication engagement and learning. *British Journal of Educational Technology*, 47(2), 421–436.
- Thaker, M. A. M. T., Thaker, H. M. T., & Pitchay, A. A. (2018). Modeling crowdfunders' behavioral intention to adopt the crowdfunding-waqf model (CWM) in Malaysia: The

- theory of the technology acceptance model. *International Journal of Islamic and Middle Eastern Finance and Management*, 11(5), 1-19.
- Uzunoglu, E., & Misci Kip, S. (2013). Building relationships through websites: A content analysis of Turkish environmental non-profit organisation' (NPO) websites. *Public Relations Review*, 40(1), 113-115.
- Watson, P. (2018, August 14). Testing normality including skewness and kurtosis. *MRC*. https://imaging.mrc-cbu.cam.ac.uk/statswiki/FAQ/Simon
- Winnie, P.-M. W. (2014). The effects of website quality on customer e-loyalty: The mediating effect of trustworthiness. *International Journal of Academic Research in Business and Social Sciences*, 4(3), 19-41.
- Wu, M.-Y., Chou, H.-P., Weng, Y.-C., & Huang, Y.-H. (2011). TAM2-based study of website user behaviour Using Web 2.0 website as an example. *WSEAS Transcations on Business and Economics*, 4(8), 133-151.
- Xu, J., Benbasat, I., & Centefelli, R. T. (2013). Integrating service quality with system and information: An empirical test in the e-service context. *MIS Quarterly*, *37*(3), 777-794.
- Yang, A., & Taylor, M. (2010). Relationship building by Chinese ENGOs' Websites: Education, not activation. *Public Relations Review*, *36*(2010), 342-351.
- Yeon, H. M., Choi Y., & Kiousis, S. (2005). Interactive communication features in NPO Web pages for the practice of excellence in public relations. *Journal of Website Promotion*, *1*(4), 61-83.
- Yu, P., & Zhao, D. (2014). Effect of website quality factors on the success of agricultural products B2C e-commerce. *IFIP International Federation for Information Processing* 420(2014), 98-113.
- Zhou, T., & Zhang, S. (2009). *Examining the effect of e-commerce website quality on user satisfaction*. Second International Symposium on Electronic Commerce and Security.
- Zhou, T., Lu, Y., & Wang, B. (2009). The relative importance of website design quality and service quality in determining consumers' online repurchase behavior. *Information System Management*, 26(4), 327-337.