

CHAPTER III

RESEARCH METHODS

3.1 Research Paradigm

Quantitative research examines the link between variables and theoretical testing procedures. We can explore the data processing results using statistical processes, allowing for varied measurement positive interpretivism paradigm are the two research paradigms employed (Malhotra et al., 2017). Quantitative research using a positive paradigm was undertaken. Quantitative research is a technic research measurement model in statistical analysis (Malhotra et al., 2017). This study aimed to see if and how quantitative research collected data using questionnaires that resulted in numbers, with research samples ranging from 30 to over 100. Because various circumstances influence quantitative research, it employs a deductive approach (Malhotra et al., 2017).

3.2 Research Object

The subject of this study's investigation is the online publication Tribun Kaltim. PT Mahakam Media Grafika produces the online media Tribun Kaltim. On May 8, 2003, PT Mahakam Media Grafika published tribun Kaltim print media

before launching Tribun Kaltim. PT Mahakam Media Grafika is a printing and publishing company founded on September 27, 2002, by deed no. 63 of 2002 with notary Abu Yusuf in Jakarta. PT Indopersda Primamedia and Kompas Gramedia manage PT Mahakam Media Grafika. PT Indopersda Primamedia has previously handled a local newspaper in Indonesia before purchasing Tribun Kaltim. Serambi Indonesia (Nanggroe Aceh Darussalam), Banjarmasin Post (South Kalimantan), Bangka Post (Bangka and Belitung), and Sriwijaya Post are the four post offices in Aceh Darussalam (Palembang, South Sumatra). Tribun Kaltim was the first administration of PT Indopersda Primamedia to use the Tribun trademark. The local market celebrated the launch of tribunKaltim with enthusiasm. In response to the positive reaction, the Tribun Kaltim spread its wings once more. A local daily known as Tribun Kaltim is now being established in a different location.

Tribun Kaltim was listed in 2011 as having 21 local newspapers in 17 cities in Indonesia. Tribun Kaltim has grown as well, with 28 local publications in 19 cities as of 2013. Tribun Kaltim, which manages 28 local newspapers in 19 locations, focuses on customers with social-economic status or SES for A-B. In addition, several tribun Kaltim newspapers, such as Prohaba, have a target market with SES B-C. The newspaper Tribun Kaltim runs 28 to 36 pages. Tribun Kaltim

is a newspaper with the Easy Reading idea, which means that the substance of the news must include components from both sides of the cover and even cover all sides. With such a notion, Tribun Kaltim Daily will attract the upper-middle class and people aged 18 and higher. In East and North Kalimantan, Tribun Kaltim newspaper distribution is now available in all districts and cities. Tribun Kaltim expansion isn't limited to the print industry. Tribun expanded into new markets as informatics technology (particularly the internet) advanced. On March 22, 2010, Tribun appeared in online media with www.tribunnews.com. Tribun Kaltim is in the same boat. Tribun Kaltim first debuted in the online media with the URL [www. Tribun Kaltim](http://www.TribunKaltim); this news site provides local, national, sports, celebrity, lifestyle, and other news from tribun Kaltim in real-time, shorter, and updated format. Tribun Kaltim also broadcasts online streaming videos of the news stories covered. Tribun Kaltim news coverage can also be packaged for mobile through device applications partnered with Tribun, such as the iPad Tribun reader, Tribun for Galaxy Tab, or BlackBerry Tribun. The news from Tribun Kaltim is mainly broadcast in sound format. This information is revealed on Sonora Radio, Smart FM, and the radio stations of Kompas Gramedia.

Tribun Kaltim publishes news and information under the following categories: national, etam, Kaltara, international, superbball, sport, celebrities, business, lifestyle, science and technology, tribun readers, photos, and issues. The rubrics are designed to appeal to working-age readers familiar with information technology. Tribun Kaltim target audience for this category is young people, urban lifestyles, professionals, and city dwellers. Tribun Kaltim also uses social media to reach out to readers who have never visited Tribun Kaltim before. In tough media contests, Tribun Kaltim employed convergence methods. This method is used on Tribun Kaltim, an online publication. Each local daily tribun national news material adapts to the national news content available on the Tribunnews.com website.

Since 2007, the media convergence strategy has been in place. The Banjarmasin Post, a local newspaper, was the first to use this convergence method. Serambi Indonesia, Tribun Timur, and Tribun Jambi all used this technique. Since 2009, this policy has been in effect nationwide. The Tribun version of media convergence may be seen in the cooperation between local media and local publications' use of the same content. Currently, each local newspaper has a specific page, which is around eight pages long, in addition to local information from their regions. This Shared Page contains information about celebrities, themes, and

sports. Tribun, situated in Jakarta, also generates national news content for distribution to local newspapers. Reporters in the newsroom are responsible for covering news for multimedia, multiplatform, and multichannel platforms (3M). Multimedia refers to text, images, sound, or video information. Multichannel suggests that news can be transmitted through multiple channels, such as Google. Yahoo! Newspapers, Tribunnews.com, and others are just a few examples. While multiplatform is a concept, news can be provided via mobile, blackberry, iPad, Galaxy Tab, or other devices.

It's also simple to repackage news thanks to media convergence. Tribunnews.com and Tribunnews.com can reload and alter news received by Tribun newspapers in certain areas for publication in other Tribun newspapers and Tribunnews.com. To attract advertising, a converged media business model is in place. Tribun offers a variety of advertising packages across various media platforms. Advertisers can pay a flat fee to have their adverts appear in both the Tribune and Tribun Kaltim newspapers. The readership of local newspapers Tribun and Tribun Kaltim increased due to this merged media business model.

3.3 Population and Sample

The target population is a collection of data points from which researchers can make decisions. While the people are a collection of shared qualities that become part of the scope of research problems, the population is a collection of common characteristics that become part of the scope of research problems (Malhotra et al., 2017). The ability to accurately specify the elements, sample units, extents, and time frames of the target population is crucial since the target population is a collection of elements having the desired information (Malhotra et al., 2017). The study's participants are Indonesian online media users. Indonesian online media continues to expand. To date, 43.000 people have used the internet. It amounts to a total of 202,6 million internet users in early 2021. It amounts to a total of 202,6 million internet users in early 2021. Compared to January 2020, this number climbed by 155% or 27 million individuals. Indonesia's population is currently estimated to be 274,9 million people. By early 2021, Indonesia will have a 73,7% internet penetration rate. It was revealed in a recent report named "Digital 2021" by content management provider Hootsuite and social media marketing agency We Are Social (Riyanto, 2021). In 2019, that number was estimated to be around 185 million individuals. Indonesia is one of the most excellent online

markets globally; Indonesia had a higher than 68% online penetration rate in July 2020. Two popular internet activities are text messaging and social networking. With 82% of the vote, Facebook is the most popular social network. Mobile internet usage is increasing at a double-digit rate, with over 61% of its population.

The population in this study researchers determined that the people that will be targeted are online media readers throughout Indonesia. The essential elements of the sampling process are unit samples. Unit samples have the same characteristics as the elements of the study's target population that will be sampled (Malhotra et al., 2017). In this study, the sample unit is an Indonesian Tribun Kaltim reader.

The time frame refers to the amount of time it takes for researchers to distribute questionnaires, collect them, and analyze the data from the questionnaires that have been distributed. The time frame for this investigation is from May to June 2021. Sampling frames are population representatives who use a set of directives to identify the target population (Malhotra et al., 2017). The study's Sampling was done at random online using the Google Forms program. The number of elements necessary in a study is considered sample size (Malhotra et al., 2017). Hair (2014) calculated the number of samples as respondents depending on the number of

questions asked of respondents, assuming $n \times 5$ to $n \times 10$ observations. There were 38 questions in this survey; thus, if the number of questions was multiplied by five, the total number of responses was 190.

Probability sampling and non-probability sampling are the two types of sampling procedures. Every population element is already known via probability sampling, and there is no nonzero probability. Furthermore, the selection procedure for a probability sample has random features (Zikmund et al., 2013). Probability sampling employs several strategies, including:

a. Simple Random Sampling

A method of sampling that assures that every member of the population has an equal chance of being chosen as a sample (Zikmund et al., 2013).

b. Systematic Sampling

A sampling procedure in which a random process selects a starting point and then selects every n th number on the list (Zikmund et al., 2013).

c. Stratified Sampling

A primary random sample pool that is roughly the same on various attributes is taken from inside each population tier using a probability sampling process. (Zikmund et al., 2013).

d. Proportional Stratified Sample

The total number of sampling units chosen from each group (Zikmund et al., 2013).

e. Disproportional Stratified Sample

Tiered samples are those in which analytical parameters decide the sample size for each stratum. (Zikmund et al., 2013).

f. Cluster Sampling

Economically efficient sampling approaches in which a primary sampling unit is a large number of items rather than a single element in the population; a group of people chosen at random (Zikmund et al., 2013).

g. Multistage Area Sampling

Sampling employs two or more probability sampling techniques (Zikmund et al., 2013). Nonprobability Sampling is a sampling

approach in which the sample unit is decided based on personal assessment, but the probability of a population member is unknown. Because it relies on individual reviews from researchers, this technique is a little arbitrary (Zikmund et al., 2013). Nonprobability sampling approaches include the following four methods:

i. Convenience Sampling

The easiest way to execute a sampling technique is to collect persons or units (Zikmund et al., 2013).

ii. Judgment Sampling

It is a nonprobability sampling technique in which the sample is chosen based on a self-assessment of the sample member's appropriate attributes (Zikmund et al., 2013).

iii. Quota Sampling

A nonprobability sampling strategy ensures that a diverse population subset will reflect the researchers' desired characteristics (Zikmund et al., 2013).

iv. Snowball Sampling

The first respondent is chosen using the probability approach, and other respondents are acquired using the information provided by the first respondent (Zikmund et al., 2013). Because the sample units are chosen based on the researcher's evaluation, researchers utilize a non-probability sampling technique. Researchers select the aspects to use as samples purposefully in non-probability Sampling. This type of Sampling provides a reliable approximation of population characterization. Probability to collect more accurate data and meet study objectives, likely sampling uses judgemental sampling, in which respondents are picked based on characteristics defined by the researchers. Judgmental sampling is a type of convenience sampling in which researchers can undertake assessments by determining which features must be included in a sample that represents a predetermined population (Malhotra et al., 2017).

The cross-sectional sign technique was employed in the sampling process. A cross-sectional study is a type of research in which data from samples in the population element is only retrieved

once (Malhotra et al., 2017). Questionnaires were utilized to gather primary data sources. This questionnaire will be distributed at random and online via Google Forms, and it will be processed using structural equation modeling (SEM) research procedures and Lisrel software modeling.

3.4 Operational Variable

Exogenous and endogenous variables were used to create the variables in this study. A variable that occurs in all of the model's equations is known as an exogenous variable. In research, the Greek letter ζ represents the exogenous latent variable. Circles represent exogenous variables with arrows pointing outward (Hair et al., 2014). In a multivariate analysis, external variables, which Malhotra refers to as latent variables, might affect other variables (Malhotra et al., 2017). While an endogenous variable is a variable that is connected to at least one model equation, the rest of the variable is a free variable in all equations. Endogenous variables are expressed mathematically as (η). Endogenous variables are represented by circles containing at least one arrow (Hair et al., 2010b). Exogenous variables in this study include varying fulfillment, customer service, website design,

security/privacy, social media. Endogenous factors in this study included e-loyalty, e-trust, and e-satisfaction. Each variable will be assessed using existing indicators and a predetermined measurement scale based on a five-point interval scale, with one indicating strong disagreement and five indicating strong agreement.

Table 3.1 Operational Definitions

NO	Latent Variables	Operational Definitions	Measurement Code	Measurement	Reference	scala
1	E-loyalty (L)	e-loyalty is defined as a consumer's behavior that benefits online vendors by causing them to purchase the same product again (Jeon & Jeong, 2017)	L1	1. When I need to read the news, Tribun Kaltim news website is my first choice	Jeon & Jeong, 2017	Interval Scala 1-5
			L2	2. Tribun Kaltim is my favorit website		
			L3	3. I would recommend Tribun Kaltim news website to others		
			L4	4. Tribun Kaltim news website didn't meet my expectations to get the latest news		
			L5	5. As long as the Tribun Kaltim service continues, I will not switch to other news websites		
2	E-trust (T)	E-trust is the customer's level of confidence or certainty when conducting online transactions (Zhu et al., 2016)	T1	1. I believe what the website says Tribun Kaltim about its products	Zhu et al., 2016	Interval Scala 1-5
			T2	2. Tribun Kaltim reliable news website		
			T3	3. Website performance news Tribun Kaltim meet my expectations		
			T4	4. I believe Tribun Kaltim news websites don't hide the important information I need		
			T5	5. I don't trust Tribun Kaltim news website's products thoroughly		
3	E-satisfaction (S)	Customer satisfaction as a subjective variable that arises from perception and comparison between consumer expectations and what consumers get that can be seen from their feelings (Suchánek & Králová, 2018)	S1	1. I am satisfied with the product of The tribun Kaltim news website	Suchánek & Králová, 2018	Interval Scala 1-5
			S2	2. I am satisfied with my decision to visit Tribun Kaltim news website		
			S3	3. I am satisfied with the experience of reading the news on the Tribun Kaltim website		
			S4	4. My choice of visiting the Tribun Kaltim news website was a wise choice		
			S5	5. I did the right thing when I visited Tribun Kaltim news website		

4	Fulfillment/Reliability (F)	The operations that assure consumers receive what they bought, such as delivery timing, order accuracy, and delivery condition, are referred to as fulfillment	F1	1. Product news Tribun Kaltim accurate news website	Blut, 2016	Interval Scala 1-5
			F2	2. new Products As promised by the company, Tribun Kaltim provided me.		
			F3	3. I get what I'm looking for from Tribun Kaltim news website		
			F4	4. Tribun Kaltim news website provides in-depth information about East Kalimantan		
			F5	5. In addition to getting news about local government policies, Tribun Kaltim trusted news websites about national news		
5	Customer Service (Responsiveness) (CS)	Customer service is defined as activities aimed at a task that includes interactions between clients and the organization and seeks mutual satisfaction of both parties' expectations, so it must be designed with two goals in mind: customer satisfaction and operational efficiency (Álvarez-García et al., 2019)	CS1	1. Websites Tribun Kaltim respond to customer needs	Álvarez-García et al., 2019	Interval Scala 1-5
			CS2	2. The admin of the Tribun Kaltim news website immediately answered reader questions		
			CS3	3. When you have a problem, the website manager Tribun Kaltim does not show seriousness to solve it		
			C4	4. Someone can access the email website service easily Tribun Kaltim		
6	Website Design (W)	Website quality is defined as a website's overall excellence or efficacy in delivering intended messages to its audience and viewers (Ali, 2016).	W1	1. Tribun Kaltim news website is well designed so as not to waste my time	Ali, 2016	Interval Scala 1-5
			W2	2. Quick to know the news on Tribun Kaltim news website		
			W3	3. News websites Tribun Kaltim easily accessible		
			W4	4. Website fonts Tribun Kaltim do not make the eyes get tired quickly when reading the news		
			W5	5. Simple Tribun Kaltim website color		
7	Security/Privacy (SP)	The security of credit card payments and the privacy of shared information are referred to as security/privacy (Blut, 2016)	SP1	1. The website Tribun Kaltim has adequate security features	Blut, 2016	Interval Scala 1-5
			SP2	2. I feel safe when I comment in the comments section of the Tribun Kaltim news website		
			SP3	3. I feel my privacy is protected on Tribun Kaltim news website		
			SP4	4. News websites Tribun Kaltim easily hacked by others		
			SP5	5. I feel unfazed by the display of advertisements on news websites Tribun Kaltim		
8	Social Commerces (SM)	Samarasinghe & Silva (2019) defines social commerce as an e-commerce category that uses Web 2.0 social media technology to facilitate online engagement and contributions from online users in the acquisition of items and services	SM1	1. I usually use reviews on Social Media about products on the internet	Samarasinghe & Silva, 2019	Interval Scala 1-5
			SM2	2. I think the news information on social media is accurate		
			SM3	3. I use online forums to get the latest news		
			SM4	4. Many people provide information about the news on social media		

Source: Primary data processing results (2021)

3.5 Data Collection Techniques

The current data collection method uses questionnaires delivered to predetermined samples in quantitative research. Questionnaires circulated online using Google Forms and performing interviews with online media managers are used to get primary data. The first question asks when respondents last read the Tribun Kaltim news. The second screening question is about how frequently respondents read Tribun Kaltim, and the third is about how often they share Tribun Kaltim news. The benefits of the internet and how respondents obtain reports were explored, and the interaction of internet usage, location, time, and facilities to access the internet. This screening question is asked at the start of the process to ensure that you get the information you need. In addition, the kind of domicile, gender of the respondent, age of the respondent, education of the respondent, type of work, and monthly expenditure of the respondent are all questions asked. It is essential to get has been adjusted to the target sample selected.

3.6 Data Analysis Techniques

3.6.1 Pretest

3.6.1.1 Validity Pretest

A validity test is a tool that assesses the validity of a questionnaire (Malhotra et al., 2017). The validity test examines how well and precisely an indicator represents a variable that must be measured. The higher the level of validity of an arrow, the more genuine a study.

[Table 3.2 Validity Test](#)

No.	Validity Measure	Hinted values
1	<i>Kaiser Meyer-Olkin (KMO)</i> is used to measure the adequacy of the number of samples taken to check the suitability of analytical factors (Malhotra et al., 2017)	The acceptable KMO value index is between 0.5 and 1.0. While the rejected KMO value is <0.5 (Malhotra et al., 2017)
	<i>Bartlett's Test of Sphericity</i> is a statistical test for analyzing existing hypotheses. The goal is to see if	

2	variables are not correlated in the model. Perfectly connected as call-related ($r=1$), and correlated variables are not correlated. ($r=0$)(Malhotra et al., 2017)	<i>Bartlett's Test of Sphericity</i> value < 0.05 acceptable(Hair et al., 2010b)
3	<i>Anti Image Matrices</i> is used to predict whether variables error against other variables.	The eligible <i>antiimage</i> value is > 0.5
4	<i>Factor Loading of Component Matrix</i> , simple the correlation between variables and factors(Malhotra et al., 2017)	<i>FactorLoading</i> value received is > 0.5 (Hair et al., 2010a)

Source: Maholtra et al., (2017) and Hair et al., (2010).

3.6.1.2 Reliability Pretest

The Scale of Measurement Consistency Test is a test that is used to see how consistent the scale of measurement results are when repeated. The higher the correlation, the more trustworthy the variable

(Malhotra et al., 2017). Reliability can assess free random error, with $\alpha > 0$ indicating that the measurement can be trusted. Cronbach Alpha is the indicator used in the dependability test, and the received value is > 0.70 (Hair et al., 2010b). In this study, researchers employed factor analysis to investigate the reciprocal relationship between variables and examine the connection to make the data legitimate and reliable by using reduction techniques and data summaries (Malhotra et al., 2017). Factor analysis can find factors that influence the relationship between variables. Forty-nine people will be given questionnaires in the pre-test to see if each variable is valid and reliable using SPSS. A pre-test was conducted by sending a test questionnaire to 51 respondents using Google Form to determine the level of validity of each indication. The table for the pre-test validity test is as follows:

Table 3.3 Validity Test Results pre-test

Variable	Kode Measurement	KMO	.Sig	MSA	Factor Loading	Valid/Invalid
E-Loyalty	L1	0,851	0.000	0,855	0,887	VALID
	L2			0,83	0,894	

	L3			0,831	0,787	Invalid – No Reverse
	L4			0,874	0,847	
	L5			0,877	0,741	
E-Trust	T1	0,821	0,000	0,778	0,741	VALID
	T2			0,805	0,895	
	T3			0,773	0,853	
	T4			0,874	0,818	
	T5			0,820	0,827	Invalid – No Reverse
E-Satisfaction	S1	0,832	0,000	0,802	0,836	VALID
	S2			0,808	0,909	
	S3			0,798	0,929	
	S4			0,888	0,867	
	S5			0,873	0,916	
Fulfilment	F1	0,823	0,000	0,794	0,788	VALID
	F2			0,876	0,843	
	F3			0,812	0,867	
	F4			0,794	0,836	
	F5			0,843	0,826	
Customer Service	CS1	0,827	0,000	0,837	0,869	VALID
	CS2			0,83	0,897	
	CS3			0,815	0,908	Invalid – No Reverse

	CS4			0,828	0,883	
Website Design	WD1	0,798	0.000	0,783	0,840	VALID
	WD2			0,754	0,844	
	WD3			0,839	0,838	
	WD4			0,833	0,780	
	WD5			0,786	0,486	INVALID
Security/Privacy	SP1	0,744	0.000	0,864	0,794	VALID
	SP2			0,676	0,947	
	SP3			0,717	0,924	INVALID
	SP4			0,506	0,150	
	SP5			0,863	0,714	
Social Commerce	SM1	0,855	0.000	0,854	0,716	VALID
	SM2			0,888	0,738	
	SM3			0,842	0,815	
	SM4			0,873	0,773	Invalid – No Reverse
	SM5			0,844	0,871	
	SM6			0,841	0,823	

Source: Primary Data Processing Results (2021).

The following is the profile of respondents in the pre-test, which involved 49 people. The total data received at the pre-test was 51, and two of the data

were invalid because they didn't meet the requirements. According to table 3.3, the entire indicator should have a VALUE of KMO 0,5. The existing variable, e-satisfaction, has the most incredible KMO value of 0,832, while the customer service variable has the lowest KMO value of 0,827 out of the eight variables. Aside from that, any variable with a significant level of 0,5 is essential (Hair et al., 2014). Each existing indication of each variable has a value of 0,5 for Anti Image or MSA. L1 has the highest MSA value of 0,855 on e-loyalty (When I need to read the news, TribunKaltim.co news website is my first choice). The lowest MSA score, 0,83, belongs to L2 (TribunKaltim.co is my favorite news website). T4 (I believe Tribunkaltim.co news website does not hide the important information I need) has the highest MSA of 0,874 at e-trusts. T2 (Tribunkaltim.co reliable news website) has the lowest MSA. S4 has the greatest MSA of 0,888 in terms of e-satisfaction (viewing Tribun Kaltim news website is a sensible choice). With a frame of 0,798, the lowest MSA on e-satisfaction is S3 (I am satisfied with the experience of reading the news on the Tribun Kaltim website). F4 (news websites Tribun Kaltim provide in-depth information about East Kalimantan), both with MSA 0,794, have the lowest fulfillment. F2 has

the highest MSA on Fulfilment (Tribun Kaltim news products delivered on time as promised by the company).

The highest MSA in customer service is 0,837 in CS1 (website Tribun Kaltim responds to customer needs). The lowest MSA is 0,83 in CS2 (reader questions are immediately answered by the news website TribunKaltim.co). The most critical MSA in website design is WD5 (Website color display Tribunkaltim. co simple) with 0,786. The lowest MSA was 0,754 in WD2 (quick to check out the latest news on Tribun Kaltim website). In SP5, the maximum MSA for security and privacy is 0,863. (I will be unperturbed by the display of advertisements on the news website TribunKaltim.co). The lowest MSA was 0,676 in SP2 (I feel safe when I comment in the comment section of the news website Tribunkaltim. co). The highest MSA on social media is 0,854 in SM1 (I usually use reviews on social media about a product on the internet). The MSA with the lowest score was 0,855 in SM3 (I use an online forum to get the latest net).

Indication of each variable in the loading factor is more than 0,5. The e-loyalty variable has the maximum loading factor value of 0,894 in L2 and the lowest value of 0,741 in L5. On e-trusts, T2 has the highest loading factor

value of 0,895, and T1 has the lowest loading factor because it has 0,741. S3 has the highest loading factor value of 0,929, and S1 has the lowest loading factor satisfaction. The most significant loading factor in fulfillment is F3, with a value of 0,867, while the smallest is F1, with 0,788. In customer service, CS2 has the most significant loading factor of 0,897, while CS1 has the lowest loading factor of 0,869. W2 has the highest loading factor of 0,844, and W5 has the lowest loading factor of 0,486 on the design website. SP2 has the highest loading factor of 0,947, while SP4 has the lowest loading factor of 0,150. The greatest significant loading factor on Social Media is in SM3, at 0,815, while the least effective is in SM4, at 0,773. As a result, the two loading factors are ruled illegal because their values are less than 0,5.

Furthermore, values of KMO, MSA, and loading factors greater than 0,5 are declared. Five indicators were declared invalid because they were not reversed when the questionnaire was given to respondents. The five indicators are L4, T5, CS3, SP5, and SM5. All five indicators were omitted before the pre-test reliability. A pre-test was conducted by sending a test questionnaire to 49 respondents via Google Form to determine the level of

reliability of each indicator. The following is the dependability test: A pre-test was conducted by sending a test questionnaire to 49 respondents via Google Form to determine the level of reliability of each indicator. The following is the dependability test:

Table 3.4 Pre-test Reliability Test Results

Variable	Measurement Code	Cronbach's Alpha	Reliable/No Reliable
E-Loyalty	L1	0,874	RELIABLE
	L2		
	L3		
	L5		
E-Trust	T1	0,88	RELIABLE
	T2		
	T3		
	T4		
E-Satisfaction	S1	0,934	RELIABLE
	S2		
	S3		
	S4		
	S5		

Customer Service	CS1	0,906	RELIABLE
	CS2		
	CS4		
Fulfillment/Reliability	F1	0,887	RELIABLE
	F2		
	F3		
	F4		
	F5		
Website Design	WD1	0,845	RELIABLE
	WD2		
	WD3		
Security/Privacy	SP1	0,824	RELIABLE
	SP2		
	SP3		
Sosial Media	SM1	0,873	RELIABEL
	SM2		
	SM3		
	SM4		
	SM6		

Source: Primary Data Processing Results (2021)

All indicators have a Cronbach's Alpha value of more than 0,7, as shown in Table 3.4 (Hair et al., 2014). The most excellent value for e-satisfaction variables was 0,932, while the lowest value for e-loyalty variables was 0,834. As a result of these discoveries, all indicators for each variable can be assumed to be reliable.

3.6.2 Descriptive Analysis

In statistical hypothesis testing, descriptive analysis is a strategy that seeks to methodically and factually explain the facts and relationships between variables explored by collecting, processing, analyzing, and interpreting data (Malhotra et al., 2017). Descriptive statistical analysis is a statistic used to analyze data by summarizing or explaining it without drawing inferences or broad generalizations. Descriptive statistical analysis is simply a collection of fundamental data presented in descriptions, with no attempt to discover or explain interconnections, test hypotheses, make predictions, or draw analogies. Descriptive statistical analysis approaches include table presentation, frequency distributions, and cross-tabulation. This analysis will determine whether the study's findings are low, medium, or high. Visual data

display includes histograms, polygons, ogives, bar charts, pie charts, and emblem charts. The size of the central tendency is calculated (mean, median mode). Sizes of locations are calculated (quartile, pencil, and percentile). Spread size calculation (standard deviation, variance, range, quartile deviation, mean deviation, and so on).

The respondents' questionnaires were the subject of the descriptive analysis in this study. Respondents should select an option that best expresses their feelings. Questionnaires are distributed and contain a choice of responses on a range of 1 to 5. Each response is given a separate score. The following is the score for each answer:

Score 1 = Strongly Disagree

Score 2 = Disagree

Score 3 = Moderate agree

Score 4 = Agree

Score 5 = Strongly Agree

Data from each variable will be determined in this analysis, including:

1. Scoring

2. On this score, the first step is to enter the poll data collected and then add up each respondent's answers to the research questionnaire.
3. Set up a frequency table.
4. Choose a histogram.
5. Find the average of Variable X and Variable Y.

Descriptive analysis aims to figure out how people responded to statements in existing questionnaires. It is accomplished by examining the average response of each scale's respondent. Primary data processing based on questionnaire data for this analysis uses SPSS software. Each indicator is assigned a category type according to the value interval of each respondent's answer. The study used a standard questionnaire using the Likert Scale with a five-point score for each respondent: "Strongly Disagree (STS), Disagree (TS), Moderate agree (MA), Agree (S), and Strongly Agree (SS). Therefore, the measurement of the interval obtained is to reduce the maximum five with a value of at least one, then divide by the number of answers. So there is an interval of 0.8 for each category. Here's the interval table and types obtained:

Table 3.5 Intervals and Categories

Interval	Category
$1.00 < \text{value} \leq 1.80$	Strongly Disagree
$1.81 < \text{value} \leq 2.60$	Disagree
$2.61 < \text{value} \leq 3.40$	Moderate Agree
$3.41 < \text{value} \leq 4.20$	Agree
$4.21 < \text{value} \leq 5.00$	Strongly Agree

Source: Primary Data Processing Results (2021)

3.6.3 Model Overall Match Analysis

Global model fit can be quantified using inference statistics (model fit tests) or fit indices, non-exclusive (an assessment of approximate model fit).

In PLS path modeling, the bootstrap is used to assess the chance of obtaining a gap between the empirical and model-implied correlation matrix as big as the one obtained for the sample in question if the hypothesized model is valid. Global model fit can be quantified using inference statistics (model fit tests) or fit indices, non-exclusive (an assessment of approximate model fit). In PLS path modeling, the bootstrap is used to assess the chance of obtaining a gap between the empirical and model-implied correlation matrix

as big as the one obtained for the sample in question if the hypothesized model is valid. If more than 5% or a different percentage if a α -level other than 0.05 is used of the bootstrap samples provide discrepancy values more excellent than those of the actual model, the sample data may come from a population that follows the hypothesized model. As a result, the model cannot be dismissed.

The significant disparity between the model-implied and actual correlation matrix can be answered using approximate model fit criteria. The square root of the sum of the squared differences between the model-implied and the empirical correlation matrix, i.e., the Euclidean distance between the two matrices, is currently the sole approximate model fit criterion implemented for PLS route modeling (Denis, 2018). An SRMR number of 0 implies a perfect fit, and an SRMR value of less than 0,05 suggests a good fit (Chin, 1998). According to recent simulation research, even perfectly defined models can produce SRMR values of 0,06 and higher (Denis, 2018). As a result, (Chin, 1998) proposes a cut-off value of 0,08 for PLS path models, which appears to be more appropriate. The SRMR is a measure of the researcher's model's approximate fit. It calculates the

difference between the observed correlation matrix and the correlation matrix implied by the model. Alternatively, the SRMR represents the average size of such differences, with a lower SRMR indicating a better fit. A model fits well when the SRMR is a few additional minors than 0,08 (Sekaran & Bougie, 2016). Some others choose a softer threshold of less than 0,10. The Bentler-Bonett index, often known as the normed fit index (NFI), measures how well something fits. NFI values more remarkable than 0,90 are deemed acceptable for factor models (Denis, 2018).

3.6.4 Outer Model Analysis (Outer Model)

1.1.1.1. 3.6.4.1 Validity Test

- Convergent Validity

Use an outer model to see how each indicator relates to latent variables of research (Denis, 2018). In the PLS method using SmartPLS 3.0 software, there are ways to calculate outer models, namely convergent validity, discriminate validity and construct reliability. Convergent validity test is carried out based on the factor loading value and the average variance extracted from an item. An item is valid if the value is more significant than 0,70 for

a particular type of shape, size, color, or surface-area analysis. A positive correlation between a variable and its nearest neighbor is good if it has a value greater than 0,50 and the correlation between variables is smaller than the AVE square.

- **Discriminant Validity**

This test is based on the value of the cross-loading measurement with the construct and value of Average Extracted (AVE) (Denis, 2018). Cross-loading deals on each indicator question against variables will show discriminant validity for testing. The standard value used is above 0,7 (Sekaran & Bougie, 2016). Cross-loading the value of construction indicators against other constructions will show the results of discriminant validity tests. In the table, the cross-loading value of the needle of a construct is greater than the value of cross-loading the construct indicator against other constructs. That means the discriminant validity of each indicator has met its variables.

3.6.4.2 Reliability Test

The reliability of the indicators in this study was determined using the composite reliability value and Cronbach's alpha (Denis, 2018). A questionnaire is trustworthy if a respondent's answer to a question is consistent or stable. According to the rule of thumb, the alpha or composite dependability must be more significant than 0,7 (Denis, 2018). A reliability test was conducted to demonstrate the instrument's consistency and accuracy in measuring constructs. With a value of $> 0,70$, Cronbach's alpha can be used to assess the reliability of a concept containing reflexive indicators. It may be concluded that the research model has met the importance of composite reliability.

3.6.5 Structural Analysis (Inner Model)

An inner model is a structural model used to predict causality links between latent variables or variables that can't be directly measured. Structural models describe causation links between latent variables based on the theory's substance (Hair et al., 2010). In SmartPLS, structural model testing (inner model) is performed with the help of Bootstrapping and

Blindfolding techniques. This research investigates the relationship between R Square on endogenous constructs as one of the tests for structural models (Sekaran & Bougie, 2016). In endogenous constructs, the R Square value is the coefficient of determination. R square values are 0,67 (strong), 0,33 (moderate), and 0,19 (weak), according to Chin (Chin, 1998). The greater the R^2 number, the better the proposed research model's prediction model. The inner model is useful for demonstrating the degree of significance in hypothesis testing. Then there's F^2 (Effect Size) (path coefficient). The F^2 value model illustrating the association between exogenous and endogenous variables with a range of negative values one, zero, and positive one is tested for effect size (F Square). The expected value for a small model is 0,02; for a medium model, 0,15; and for a large model, 0,35.

Stone-prediction Geisser's relevance (Q square) is known. This test aims to determine the prediction capacities of blindfolding processes. If the result is 0,02 (small), 0,15 (mid), or 0,35 (big) (large). It can only be done by reflecting indicators for endogenous constructs (Denis, 2018). The significance (two-tailed) test is the fourth. The goal of utilizing smartPLS to test the significance of the SEM model is to determine the effect of

exogenous variables on endogenous through bootstrapping operations. The mean, standard deviation, t statistic, and p-value are generated from the bootstrapping findings. T-value value 1,65 with a significance level of 10%, t-value value 1,96 with a level significance of 5%, and t-value value 2,58 with a significance level of 1% are the expected values. The following diagram depicts this study model:

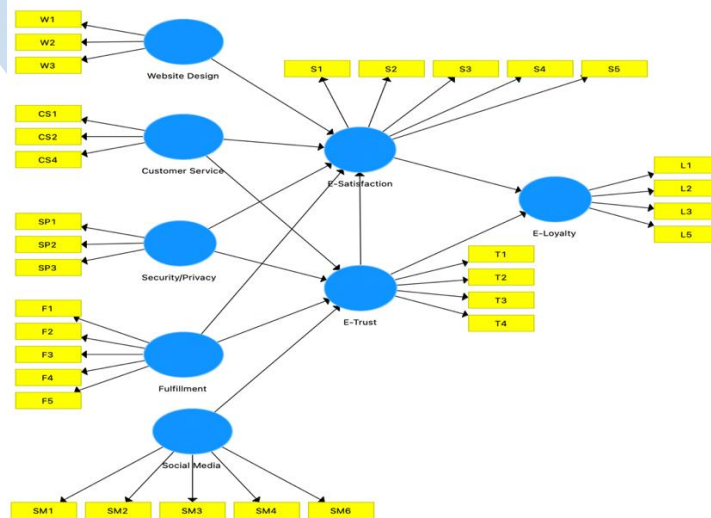


Figure 3.1 Structural model research

Source: Primary data processing results (2021)

3.6.6 Mediation Test

In this study, we employed path analysis, an extension of multiple regression analysis, to examine the impact of intervening variables. Models based on theoretical underpinnings have been used to create causality linkages between variables, and route analysis employing relationship patterns between three or more variables can be used to accomplish so (Hair et al., 2010). When one variable impacts the other without using a third variable to mediate the interaction, it is called a direct relationship (intervening). When a third variable mediates the relationship between two variables by determining the multiplication results between the standardized values of independent variables to mediation variables with mediation variables to dependent variables, it is called an indirect relationship. The link is considered direct if the regression path coefficient of the calculation results is directly more significant than the indirect calculation (using mediation) and vice versa. The indirect impact calculation findings in SmartPLS 3 can assess the strength of mediator variable relationships with other variables. When a varying influences the relationship between a free and a bound variable, it is mediation. Changes in free variables influence mediator variables, which, in

turn, affect bound variables. The author employs a simple mediation model in this study, with only one mediator variable. The authors used a groove established by Zhao, Lynch, and Chen to assess this simple mediation model (2010).

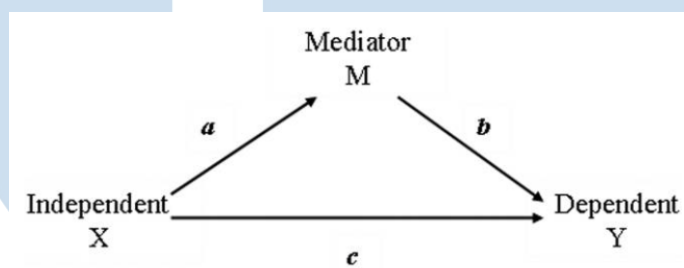


Figure 3.2 Simple mediation model (Zhao et al., 2010)

The figure above is a simple mediator model. Analysis of the influence of mediation utilizes the following values:

- c is a direct effect
- Multiplication between $a \times b$ equals indirect effect
- $c + (a \times b)$ equals total effect

These numbers are calculated automatically by the SmartPLS 3 application during the bootstrapping phase and after the hypothesis test is completed. The following is how the calculation mentioned above's results are incorporated into the analytical flow:

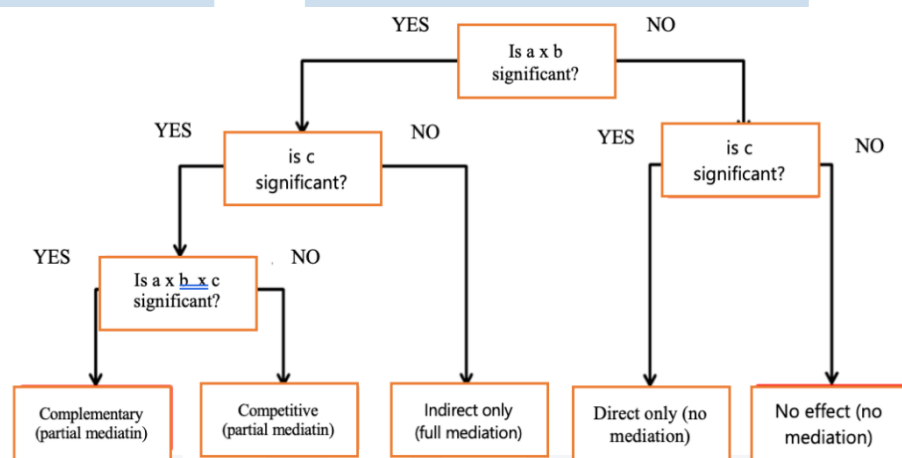
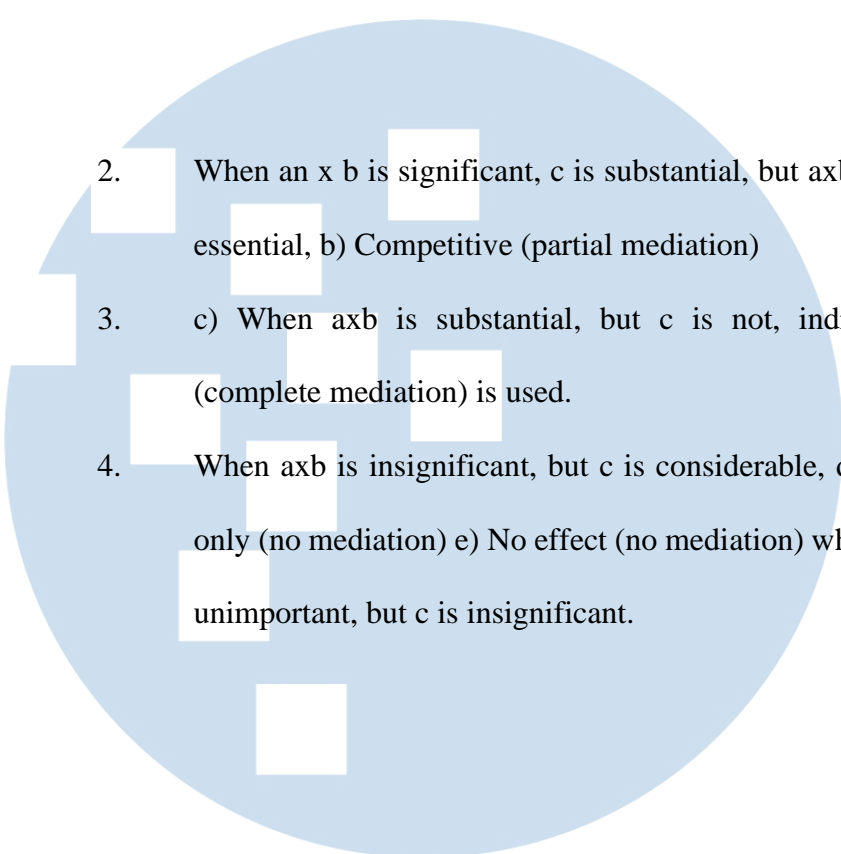


Figure 3.3 Mediating Grouping Analysis Flow (Zhao et al., 2010)

Zhao et al. (2010) classified mediation effects into five categories:

1. When an $x \rightarrow b$, c , and $a \rightarrow b \rightarrow c$ Significant are significant, complementary (partial mediation) is used.

- 
2. When ax is significant, b is substantial, but axb is not essential, b) Competitive (partial mediation)
 3. c) When axb is substantial, but c is not, indirect-only (complete mediation) is used.
 4. When axb is insignificant, but c is considerable, d) Direct-only (no mediation) e) No effect (no mediation) when axb is unimportant, but c is insignificant.

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