The Impact of Online Travel Website Design on Online Purchase Intention: Case Study at Traveloka.com

Anisatul Auliya[1,] Diani Mustika Prianti[2], and Nesya Fidelshy[3]

[1,2,3] Tourism Management Business, Vocational Program Education, Universitas Indonesia
anisatul.auliya@ui.ac.id

Abstract. E-commerce is one of the results from the development of internet technology. Traveloka is one of the e-commerce sites in the tourism industry that provides access to finding and buying types of travel needs, local attractions and financial service products. The purpose of this study is to explain how the design of a website can attract consumers' attention and influence online purchase intentions. To conduct this research, a literature study and questionnaire distribution using the Google form have been carried out. The total number of samples in this study were 103 people. Furthermore, the data has been analyzed using PLS-SEM (Partial Least Square-Structural Equation Modeling) technique. The results of the study show that several website designs such as Navigation and Visual Representation are the determining factors in attracting customers to use the Traveloka.com. This research was focused only on Traveloka as an Online Travel Agent and can be expanded to other industries.

Keywords: Website design, Online Travel Agent, Purchase Intention

1   Introduction

Tourism is known to have become one of the sectors with the most dynamic and fast growth worldwide [1]. Furthermore, industry 4.0 has become an era that significantly influences the company's business model. Information technology in Industry 4.0 also changes every aspect of life and provides a borderless business world network, primarily through artificial intelligence, big data, internet of things, and block chain [2].

One form of digital transformation due to the expansion of technology is e-commerce [3]. According to [4], e-commerce is a practical platform that provides accessibility and flexible communication between buyers and sellers, in this case, payments are made electronically. Furthermore, e-commerce has been shown to offer many benefits given the accelerating pace of globalization, including the ability for companies to compete, reduce costs, access a wider market, and create closer relationships with customers [5]. Indonesia is the country with the seventh fastest-growing e-commerce in the world in 2022 according to the British Research Institute, Merchant Machine, by contributing as much as 10 percent of total retail spending in 2022 [6]. Of course,

this number was partly driven by the rapid increase in internet users (in 2022 there will be 205 million people) and supported by restrictions on community mobility, ranging from the PSBB to PPKM due to COVID-19. Furthermore, the change in e-commerce spending per capita from 2022 to 2023 is predicted to be 20.91 percent.
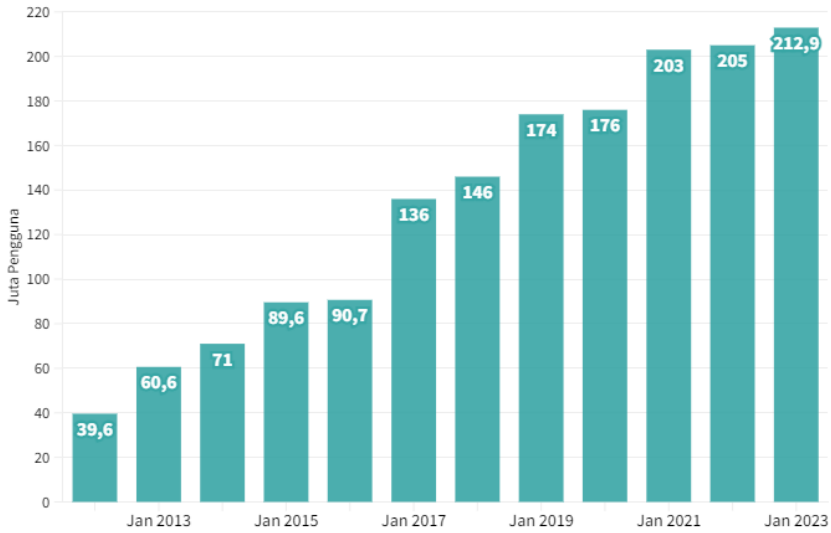

Fig 1. Number of Growth of Internet Users in Indonesia [7]

It is known that consumers often use Online Travel Agents (OTA) to facilitate their travels. According to [8], OTA is an internet-based online platform for finding and ordering desired travel products, such as tourist attractions, hotels, and transportation.

Fig 2. Survey Online Travel Agent (OTA) 2018 [9]

Traveloka.com is one of an online travel agent (OTA) service provider site engaged in the e-commerce business through web booking and applications on smartphones that sells airplane tickets and accommodation from various airlines and offers various price references with high quality and trust in the public. With the convenience offered by Traveloka.com, the Indonesian people are greatly helped by the services offered [10].

2   Literature Review

2.1   Digital Marketing

Being a digital native depends on engaging with technology frequently as a young child. However, it should be noted that Generation Z and Millennials are more likely to be comfortable with the language of the digital world. [11]. Digital marketing is a tool to promote tourism marketing messages and a set of techniques developed on the Internet to persuade users to buy a product or service [12]. Online bookings and e-commerce, social media marketing, online public relations, utilising bloggers and online influencers, mobile apps, and online advertising are just a few of the tourism marketing methods [13]. Digital marketing strategy relates to marketing strategy and digital marketing execution, which affects business performance [14].

There are various advantages to using digital marketing, including digital media as a portal for information aimed for today's consumers, offering details to make things simpler for consumers and giving them plenty of time to research products or services , 24/7 access such as a store that never closes, distance is no longer a problem: a barrier, the variety of digital media options, and cost-efficient digital marketing [15].

2.2   Website Information Quality

The website is a vital part of marketing communications to build brand awareness, brand image, corporate image and build engagement with customers [16].

Web architecture is one of the elements of a website that supports the appearance of an online retailer. To encourage visitors to the homepage to continue exploring, images or photographs must be made appealing. [17]. In addition to giving viewers information, website design elements like interactivity, security, and high-quality content are effective ways to draw clients and raise awareness among the viewers. [18]. Links, words, photos, animation, and other aural or visual components make up a website's appearance. It serves as a platform for delivering crucial messages to web visitors. The website's overall aesthetic is created by the color, text, style, and graphics. Website design influenced perceived product quality and online purchase intentions [19].
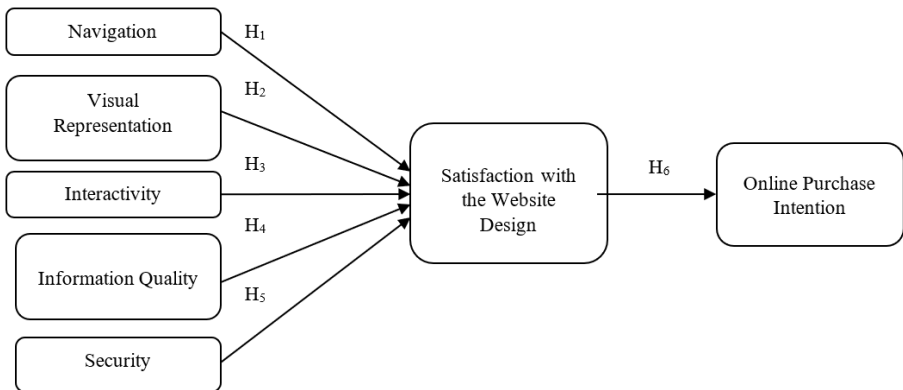
2.3   Purchase Intention

Purchase intent refers to the likelihood that a user purchases from a site [20]. Online purchase intention is understood as the level of a consumer's willingness to make a purchase through an online retailer, and it can be used to test the implementation of a new distribution channel to help managers decide whether the concept merits further development and decide which geographic markets and consumer segments to target through the channel. [21].

3   Research Hypotheses

The hypotheses tested are as under:

H_1 Navigation of a website's design and satisfaction with the website design are significantly correlated.

H_2 The visual representation of website design and satisfaction with the website design are significantly correlated.

H_3 The interactivity of website design and satisfaction with the website design are significantly correlated.

H_4 The website design Information quality of website design and satisfaction with the website design are significantly correlated.

H_5 The satisfaction with the website design and the security of the website design are significantly correlated.

H_6 The online purchase intention and satisfaction with the website's design are significantly correlated.

4   Theoretical Framework

Fig 3. Theoretical Framework

Online purchase intention is the dependent variable in this study. Website designing factors (navigation, visual representation, interactivity, information quality and security) are independent variables. Mediating variable is satisfaction with the website design. The website designing factors (navigation, visual representation, interactivity, information quality and security) directly or indirectly affect the online purchase intention, as shown in Fig 3. All these variables have a significant relationship with each other.

5   Methods

Data collection techniques were performed through a questionnaire from Google Formsand literature studies according to the research topic. The number of samples taken was 103 people using a purposive sampling technique, or it was done deliberately considering that these respondents could provide an objective assessment of online purchase intentions. The collected data were analyzed using Partial Least Square-Structural Equation Modeling (PLS-SEM). The variables in this study were measured using a Likert scale [22]. Table 1 shows a Likert scale in the form of questions and ranking.

Table 1. Likert Scale Instrument

No	Question	Score
1	Strongly Agree	5
2	Agree	4
3	Less Disagree	3
4	Disagree	2
5	Strongly Disagree	1

6   Result

6.1   Overview of Respondents

The general description of the respondents based on the characteristics of the respondent would be:

Table 2. Respondent Characteristics

Respondent Characteristics		f	%
Gender	Male	39	37,9
	Female	64	62,1
Age	17-24	54	52,4
	25-32	42	40,8
	33-40	7	6,8
Residence	Jakarta	44	42,7
	Bogor	21	20,4
	Depok	10	9,71
	Tangerang	10	9,71
	Bekasi	13	12,6
	Outside JABODETABEK	5	4,85

Source: Processed Data (2023)

Most respondents are based on gender; the majority are female, as many as 64 respondents (62.1%), and respondents based on age are primarily between 17-24 years old as many as 54 respondents (52.4%). Furthermore, the characteristics of respondents based on place of residence, the majority of respondents reside in Jakarta, namely 44 respondents (42.7%). The description of the research results for each research variable is described as follows:

Table 3 illustrates the respondents' answers on the website design variable, where the average score lies between 4.1 to 4.3, meaning that each indicator has the same average.

Table 3. Website Design Variable

| Website Design (X)	SS		S		KS		TS		STS		mean	stdev	min	max
	f	%	f	%	f	%	f	%	f	%				
DW1	36	35,0	53	51,5	10	9,7	4	3,9	0	0,0	4,2	0,8	2	5
DW2	43	41,7	51	49,5	7	6,8	2	1,9	0	0,0	4,3	0,7	2	5
DW3	47	45,6	44	42,7	10	9,7	2	1,9	0	0,0	4,3	0,7	2	5
DW4	45	43,7	50	48,5	6	5,8	2	1,9	0	0,0	4,3	0,7	2	5
DW5	44	42,7	51	49,5	6	5,8	2	1,9	0	0,0	4,3	0,7	2	5
DW6	35	34,0	55	53,4	11	10,7	2	1,9	0	0,0	4,2	0,7	2	5
DW7	34	33,0	57	55,3	10	9,7	2	1,9	0	0,0	4,2	0,7	2	5
DW8	34	33,0	55	53,4	12	11,7	2	1,9	0	0,0	4,2	0,7	2	5
DW9	32	31,1	59	57,3	10	9,7	2	1,9	0	0,0	4,2	0,7	2	5
DW10	32	31,1	58	56,3	9	8,7	4	3,9	0	0,0	4,1	0,7	2	5
DW11	27	26,2	60	58,3	14	13,6	2	1,9	0	0,0	4,1	0,7	2	5
DW12	38	36,9	55	53,4	8	7,8	2	1,9	0	0,0	4,3	0,7	2	5
DW13	48	46,6	44	42,7	9	8,7	2	1,9	0	0,0	4,3	0,7	2	5
DW14	28	27,2	60	58,3	13	12,6	2	1,9	0	0,0	4,1	0,7	2	5
DW15	36	35,0	54	52,4	11	10,7	2	1,9	0	0,0	4,2	0,7	2	5
DW16	41	39,8	51	49,5	9	8,7	2	1,9	0	0,0	4,3	0,7	2	5
DW17	41	39,8	49	47,6	11	10,7	2	1,9	0	0,0	4,3	0,7	2	5

Source: Processed Data (2023)

The data processing results on the repurchase intention variable show that the indicator that gets the minimum average score, indicator number 7, is 4.0. While the most significant indicator, namely with an average score of 4.3 on indicators number 1 to number 4.

Table 4. Repurchase Intention Variable

Repurchase intention (Y)	SS		S		KS		TS		STS		mean	stdev	min	max
	f	%	f	%	f	%	f	%	f	%				
RI1	45	43,7	48	46,6	9	8,7	1	1,0	0	0	4,3	0,7	2	5
RI2	46	44,7	45	43,7	10	9,7	2	1,9	0	0	4,3	0,7	2	5
RI3	47	45,6	45	43,7	10	9,7	1	1,0	0	0	4,3	0,7	2	5
RI4	44	42,7	51	49,5	6	5,8	2	1,9	0	0	4,3	0,7	2	5
RI5	40	38,8	55	53,4	7	6,8	1	1,0	0	0	4,3	0,6	2	5
RI6	38	36,9	53	51,5	10	9,7	2	1,9	0	0	4,2	0,7	2	5
RI7	34	33,0	44	42,7	20	19,4	5	4,9	0	0	4,0	0,9	2	5

Source: Processed Data (2023)

6.2 Discriminant Validity
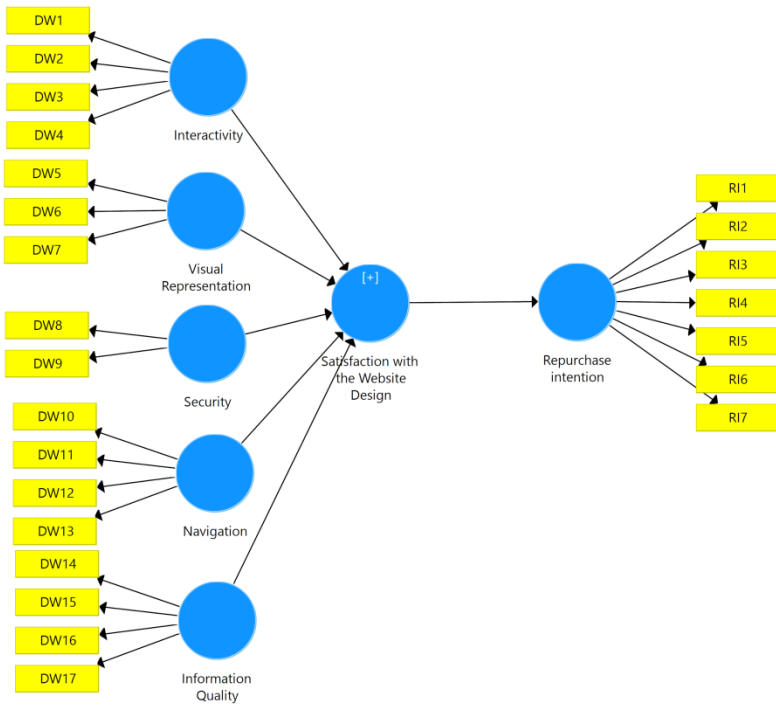
Fig 4. Structural Model
Source: Processed Data (2023)

Based on the results of the analysis to test the validity by looking at the value of the outer loading model are as follows:

Table 5. Outer Loading

Variabel	Indikator	Outer Loading	Keterangan
Website Design (X)	DW1	0.718	valid
	DW2	0.799	valid
	DW3	0.802	valid
	DW4	0.760	valid
	DW5	0.793	valid
	DW6	0.791	valid
	DW7	0.771	valid
	DW8	0.739	valid
	DW9	0.742	valid
	DW10	0729	valid
	DW11	0.721	valid
	DW12	0.741	valid
	DW13	0.797	valid
	DW14	0.834	valid
	DW15	0.802	valid
	DW16	0.806	valid
	DW17	0.808	Valid
Repurchase Intention (Y)	RI1	0,739	Valid
	RI2	0,756	Valid
	RI3	0,783	Valid
	RI4	0,766	Valid
	RI5	0,729	Valid
	RI6	0,783	Valid
	RI7	0,718	Valid

Source: Processed Data (2023)

The validity test results on the website design and repurchase intention variables obtained an outer loading value of > 0.7 so that each indicator on both variables is valid.

6.3 Reliability Test Results

The reliability test in the study is said to be reliable if Cronbach's alpha value is more than 0.7. The results of the reliability test on each research variable are shown in Table 6.

Table 6. Reliability and Average Variance Extracted

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Repurchase intention	0.873	0.877	0.902	0.568

Satisfaction with the Website Design	0.958	0.961	0.962	0.600

From the reliability test results, the value for the website design variable was 0.962 > 0.7, and repurchase intention was 0.902 > 0.7, so the two research variables were reliable.

6.4   Measuring the Model Fit

R square shows how well the Partial Least Square Regression model predicts the dataset.

Table 7. R Square (R^2)

Parameter	Mark	Explanation
HTMT	0.701	Valid equation
Determination Test (R square)	0.427	Can explain the dependent variable
Effect size	0.746	Independent variables can explain the dependent variable

The HTMT (Heterotrait-Monotrait Ratio) test results showed that the correlation value between variables was less than 0.9, so the data was valid.

The coefficient of the determination test is 0.427, so the dependent variable can be explained by an independent variable of 0.427 or 42.7 percent. In comparison, other variables outside the structural model explain the remaining 57.3 percent.

The effect size for the independent variable is more than 0.02, meaning that the value is more than 0, namely 0.746, so it is fulfilled and well-constructed and can explain a strong effect.

6.5   PLS-SEM Strucural Model

Figure 5 represents the relationship between website designing factors and online purchase intention with mediating role of satisfaction with the website design.
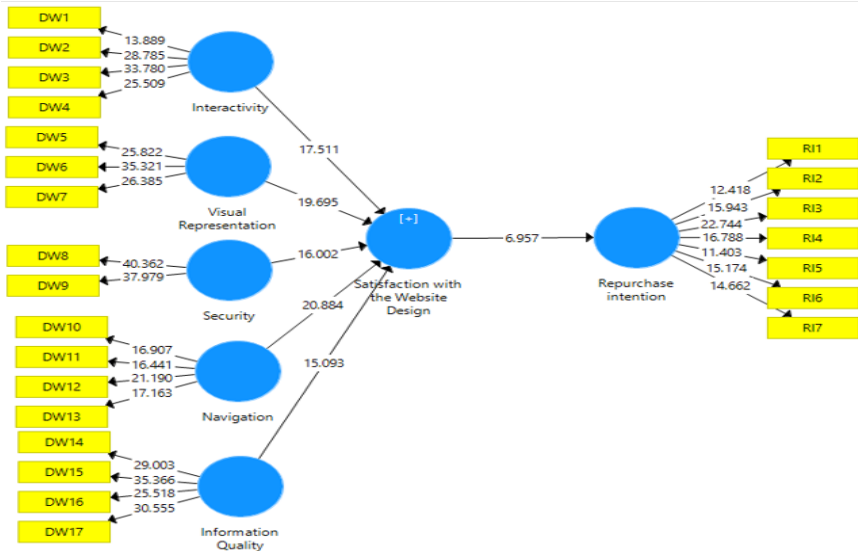
Fig 5. PLS-SEM Model
Source: Processed Data (2023)

6.6   PLS-SEM Path Analysis

Table 8 shows the path coefficient value by b values, which shows the impact of independent variable on dependent variable. It also shows the t statistics and P value for hypothesis testing. t statistics should be greater than 1,984, and P value should be less than 0,05.

Table 8. Hypotheses Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Information Quality → Satisfaction with the Website Design	0,288	0,291	0,019	15,093	0,000
Interactivity → Satisfaction with the Website Design	0,255	0,255	0,015	17,511	0,000
Navigation → Satisfaction with the Website Design	0,232	0,230	0,011	20,884	0,000
Satisfaction with the Website Design → Repurchase intention	0,650	0,670	0,093	6,957	0,000
Security → Satisfaction with the Website Design	0,128	0,128	0,008	16,002	0,000
Visual Representation → Satisfaction with the Website Design	0,198	0,199	0,010	19,695	0,000

Source: Processed Data (2023)

The explanation of the test results above is as follows:

1. Information quality on satisfaction of website design. The results of the t-test obtained the t-test value (15.093) > t table (1.984) and the p-value 0.000 <0.05 so that the hypothesis stating that information quality on satisfaction with the website design has a significant effect is **accepted.**
2. Interactivity based on satisfaction of website design. The results of the t-test obtained the t-test value (17.511) > t-table (1.984) and the p-value 0.000 <0.05 so that the hypothesis that states interactivity on satisfaction with the website design has a significant effect is **accepted.**
3. Navigation to website design satisfaction. The results of the t-test obtained the t-test value (20.884) > t table (1.984) and the p-value 0.000 <0.05 so that the hypothesis that states navigation to satisfaction with the website design has a significant effect is **accepted.**
4. Security for website design satisfaction. The results of the t-test obtained the t-test value (16.002) > t table (1.984) and the p-value 0.000 <0.05 so that the hypothesis stating that security on satisfaction with the website design has a significant effect is **accepted.**
5. Visual representation of website design satisfaction. The results of the t-test obtained the t-test value (19.695) > t-test value (1.984), and the p-value was 0.000 <0.05, so the hypothesis that states visual representation on satisfaction with the website design has a significant effect on being **accepted.**
6. Satisfaction with the website design on repurchase intention. The results of the t-test obtained the t-test value (6.957) > t table (1.984) and the p-value 0.000 <0.05 so that the hypothesis stating that satisfaction with the website design has a significant effect on repurchase intention is **accepted.**

7   Conclusion

One of the critical components of online shopping is customer satisfaction. Many consumers are switching to online travel agents (OTA) instead of physically visiting travel agents. Consumers usually visit company websites to find information and fulfill their needs. It is known that Navigation and Visual Representation are determinants for consumers in choosing OTA Traveloka.com. Companies need to consider other factors, such as Information quality, Interactivity, and Security, to increase customer satisfaction. Traveloka needs to take steps to provide a better online shopping experience for consumers because the world of e-commerce is dynamic.

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