

THE EFFECT OF PERCEIVED RISK, ORDER FULFILMENT ON VALUE CO-CREATION BEHAVIOR PT. SHOPEE

Adiva Fauziyyah Sofyan¹, Muhammad Iqbal Firdaus², Lis Lesmini³

1.2. 3 Trisakti Institute of Transportation and Logistics, Jakarta,
Indonesia.

✉corresponding author: adivafsfyn@gmail.com

Abstract: Value co-creation behaviour means consumers do extra activities which do not benefit themselves during or after consumption of market offering. Instead, the activities benefit other consumers through activities such as customer reviews, words of mouth and so on. This study was conducted to determine the effect of customer fulfilment effect, perceived risk, value co-creation behavior by analyzing the most dominant influencing variables. Drawn from e-commerce setting, order fulfilment has set new standards of consumers' shopping behaviour while inherent risks maintain consumers' level of awareness when purchasing online. The sample in this study is 116 Shopee users and data is collected using online survey. Path analysis is conducted to test the hypothesis. The results show that customer fulfillment and perceived risk influence customers' value co-creation behaviour. The study also identifies the role of perceived risk as a mediator for order fulfilment and value co-creation behaviour relationship.

Keywords: Order Fulfilment, Perceived Risk, Value Co-Creation Behavior

Introduction

With the development of the times, people's lifestyles are changing rapidly, because most people have a high level of mobility in daily activities. Therefore, people are looking for practical and instant things to fulfill their daily needs. Second, provide various services to help the community. Therefore, the sales system of a company is an important thing that needs to be considered by the company, because the company's sales system is inseparable from the development of information technology.

Indonesia is the largest e-commerce market in Southeast Asia. According to Wearesocial and Hootsuite data, around 90% of internet users in Indonesia have shopped online. Indonesia has great potential as a source of Indonesian economic income. Shopee is in second place, with a traffic share

of 29.73% as of March 2021. Shopee has 117 million monthly visits and 35.74 million unique monthly visitors. Leading to the creation of electronic word of mouth, and many companies use it as a marketing tool . e-WOM is now an important strategy, because with e-WOM, customers will trust the brand image of the product or service being marketed. As a growing e-commerce service in Indonesia, Shopee currently owns and manages its own warehouse to speed up the process from packaging to shipping customer goods. Utilizing existing resources, these resources can now be used by merchants as business support services (GoodNewsFromIndonesia, 2021)

The process of completing customer order requests. Starting from receiving orders, preparation, packaging, to delivery of orders. Good order fulfillment usually brings good customer trust Have an order fulfillment policy Perceived risk refers to the expected probability of negative things happening in a particular shopping experience. Product performance risk is the uncertainty of possible losses caused by the product not operating as expected by the customer's. This study aims to customer participation in customer's value co-creation, is a strategy to develop products and create innovations by sharing customer ideas and identifying service brand images. to Improve the company's brand image. The process of completing customer order requests. Starting from receiving orders, preparation, packaging, to delivery of orders. Good order fulfillment usually brings good customer trust Have an order fulfillment policy Perceived risk refers to the expected probability of negative things happening in a particular shopping experience. Product performance risk is the uncertainty of possible loss caused by the product not operating as expected by the customers.

This study aims to customer participation in customer's value co-creation, is a strategy to develop products and create innovation by sharing customer's ideas to identify service brand image to improve the company's brand image. in using strategies and efforts to develop value creation. This is produced by the co-creation strategy. Market attractiveness is the main input in formulating and implementing the strategy.

TABLE 1**E-commerce Q1 2021 monthly web visitors**

Source: (iPrice, 2021)

As can be seen from the image above, Shopee is most accessed via mobile with a percentage of 72.4 percent and desktop 21.3 percent. Average visit duration 6 minutes 30 seconds. percent traffic share and 13.58 million monthly visits. Shopee is an E-commerce created by Chris Feng that can dominate mobile applications. Maintain the number one position of the most popular shopping application on data access platforms (Bayu & Ridhoi, 2021).

Shopee is an electronic commerce platform that can easily buy and sell online and so on. Shopee comes in the form of mobile apps and websites to make it easier. the authors are interested in conducting a study entitled "Analysis of the influence of customer's fulfillment, perceived risk, volume co-creation behavior of PT Shopee".

E-Commerce

E-commerce is a process of selling or buying products electronically by consumers and from company to company with a computer as an intermediary for business transactions (Rakhmawati et al., 2021). E-commerce or commonly referred to as Ecom or Emmerce (EC) is a routine business exchange using Electronic Data Interchange (EDI) transmissions, e-mail, electronic bulletin boards, facsimile machines, and electronic fund transfers relating to transactions. shopping on internet shopping (lina ayu safitri, 2020).

Initially the emergence of this shopee business model was in the form of C2C or customer to customer. But over time this model changed to B2C (business to customer) with the emergence of shopee malls and became a C2C hybrid model. The purpose of this shopee business is to make an online shop platform that can connect sellers and buyers in one community. Where the target of shopee users is all people throughout Indonesia by providing fulfillment of product, community and service needs. (Fika Ayu Widyanita, 2018) The advantages of shopee include: fulfillment of product information, competitive prices (or can be said to be cheap) and ease of payment processing. Apart from that, Shopee also provides free shipping, interesting programs, an easy-to-run application interface, transaction speed and transparency because it can be checked through the receipt. While the weakness of shopee is that the application must require good internet conditions to view product details. Signals must support so that we can easily see all the products offered in it.

Definition of Information Technology

Based on research Haag & Keenan (1966) Information Technology is a set of tools that help work with information and perform tasks related to information processing. A technology used to process data, including processing, obtaining, compiling, storing, manipulating data in various ways to produce quality information, namely information that is relevant, accurate and timely, which is used for personal, business and government purposes and is strategic information for decision making. According to Martin, (1999) Information Technology is not only limited to computers (hardware-software) used to process and store information, but also includes communication technology to transmit information. While communication technology is everything related to the use of tools to process and transfer data from one device to another..

Perceived Risk

According to Zhang et al. (2015), the concept of risk perception was originally founded in 1960 by Bauer. He points out that consumer's buying behavior tends to lead to results that are difficult to predict and even

unpleasant. (Eko Bayu Prasetyo, 2019). Therefore, consumer purchasing decisions contain outcome uncertainty, which is the initial concept of risk perception (Zhang et al., 2015).

The most common definition of perceived risk is the consumer's subjective expectation of loss, which means that any consumer action will result in consequences, which cannot be anticipated with anything near certainty, and some of which may be unpleasant. Perceived risk refers to the nature and amount of risk perceived by consumer's in contemplating a particular purchase decision (Khan and Chavan, 2015).

Co-Creation

Co-creation is a term by Prahalad (2004) which describes a new approach to innovation. Prahalad & Ramaswamy (2004) present a new way to create products and experiences through collaboration with companies, consumer's, suppliers and channel partners who are interconnected in innovation networks.

Order fulfillment

The order fulfillment process takes place in one or more . typically involves inventory management, supply chain management, order processing, quality control, support for customer's who need to report problems or make product exchanges or returns. (Ginee, 2021).

Research Method

Data Sources and Types

Method In this study, sampling technique employed was ampling by distributing questionnaires via Google Form to 116 customer's shopee . divided into 5 categories of assessment answers containing graded variations, ranging from strongly disagree (1) to strongly agree (5).

This study consists of 3 variables, the variables in this study are preceived (X1) risk ,order fulfilment(X2), and volue co-creation behavior (Y) . Finally, The following hypotheses and research models are as follows:

H1: There is an effect of Perceived Risk on Order Fulfillment

H2: There is an influence of Perceived Risk on the Value of Co-Creation Behavior

H3: There is an effect of Order Fulfillment on the Value Co-Creation Behavior

H4: There is an indirect effect of Perceived ISK on the Value Co-Creation Behavior through Order Fulfillment

Mediation Analysis (Order Fulfillment mediates the Effect of Perceived Risk on Value Co-Creation Behavior)

The following is the research Framework for this research as follows:

TABLE 2

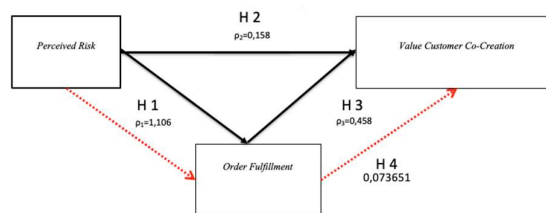


Figure 1 Research Framework

The variables used in this study, namely the dependent variable Perceived Risk (X1), Order Fulfillment (X2) and the independent variable Value Co-Creation Behavior (Y)

TABLE 1.
Measurement Items

Variable	Indicator
Perceived risk (X1) (Soehardi et al., 2020)	X1. Purchasing through Shopee makes my personal data vulnerable to attack X2. The Shopee market is not monitored effectively by the agency that regulates e-commerce transactions X3. The quality of goods purchased through Shopee cannot be guarantee
Order Fulfillment (X2) (Zu et al., 2020)	X2.1 Shopee provides quality products X2.2 Shopee provides shipping options X2.3 Shopee has an embedded option that can be shipped in advance X2.4 Shopee orders are always delivered in good condition X2.5 Once the order, bill or invoice is filled out accurately and full details are provided X2.6 In case of unwanted or damaged product delivery, product return is very easy
Value Co-Creation Behavior (Y) (Setiawan et al., 2020)	Y.1 I provide product information that other customers need to disclose Y.2 When I get good service from other customers. I comment on this Y.3 When I have a problem, I will let other customers know Y.4 I said some nice things to other customers I recommend Shopee to others

Source : Data processed by the author in 2021

Variable Operations

This research was conducted by distributing questionnaires containing a list of questions the variables studied in this study. The questionnaire was distributed to shopee users. Then the results of the questionnaire were

processed starting from the characteristics of the respondents, validity and reliability tests, classical assumption tests, and hypothesis testing. The analytical tool used in this study is multiple regression with IBM Statistics SPSS 23 tools.

Discussion and Result

This chapter presents an overview of the results of research data analysis related to the factors that Perceived Risk, Order Fulfilment, Value Co-Creation Behavior Shopee influence customer. This data analysis aims to determine the perceived risk (X1), Order Fulfilment (X2), Co-Creation Behavior (Y). The data obtained by distributing questionnaires were 116 respondents who met the criteria, namely Shopee users, 88.8% of respondents, who were dominated by the age of 17 to 25 years, indicated that customer's were in the maturity stage, so they could provide valid and accountable opinions while using Shopee e-commerce. The results of data analysis will be used to prove hypothesis one to hypothesis four. Before testing the hypothesis, the researcher provides an overview through quantitative statistics. Then the validity and reliability tests were then tested with classical assumptions which included normality tests. (heteroscedasticity tests and Multicollinearity Test).

then continued with hypothesis testing multiple linear regression analysis (Path Analysis) , Data processing using IBM Statistics SPSS 23 application.

KMO and MSA Validity Test

Table 2 KMO and MSA Validity Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.712
Bartlett's Test of Sphericity	Approx. Chi-Square	857,124
	Df	91
	Sig.	.000

Source : Data processed by the author in 2021

Based on the results of the KMO and MSA tests above, it shows that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy value is 0.712, which is greater than 0.5. This shows that all the items in the questionnaire submitted are valid.

Validity and Reliability Test

Validity Test

The purpose of the Validity Test is to test the statement items in the questionnaire whether the statement items are valid or not. according to (Sugiyono, 2016), If valid, it is worthy of being used as a research instrument. A valid instrument means that the measuring instrument used to obtain data is valid. Valid means that the instrument can be used to measure what it is supposed to measure.

Table 3.
Validity test

Variable	Question Items	R Count	R Table	Value of Sig.	Probability	Information
Perceived Risk (X1)	P1	0.746	0.159	0.000	0.05	Valid
	P2	0.800		0.000		Valid
	P3	0.811		0.000		Valid
	P4	0.727		0.000		Valid
Order Fulfillment (X2)	TR1	0.825	0.159	0.000	0.05	Valid
	TR2	0.764		0.000		Valid
	TR3	0.839		0.000		Valid
Value Co-Creation Behavior (Y)	K1	0.874	0.159	0.000	0.05	Valid
	K2	0.826		0.000		Valid
	K3	0.788		0.000		Valid
	K4	0.815		0.000		Valid
Customer Satisfaction (Y)	KP1	0.811	0.159	0.000	0.05	Valid
	KP2	0.835		0.000		Valid
	KP3	0.768		0.000		Valid

Source : Data processed by the author in 2021

Based on the results of the validity test that has been carried out, the data is declared valid if (Rcount > Rtable) and Sig Value <0.05. Rcount is obtained from the correlation table (pearson correlation) and Rtable (0.159) is obtained from the R table with a significance level of 5%. So that it can be stated that each question item posed in the questionnaire is able to represent what is the goal in this study so that it can be said that the test carried out is valid.

Reliability Test

Cronbach's Alpha . Value Table

Variable	Cronbach's Alpha	Value of Sig.	Information
Perceived Risk(X ₁)	0.668	0.6	Reliable
Order fulfillment(X ₂)	0.612	0.6	Reliable
Value Customer Co-Creation(Y)	0.774	0.6	Reliable

Source : Data processed by the author in 2021

According to the results of the reliability test, the Cronbach Alpha value shows the Cronbach Alpha X1 value of 0.668, X2 of 0.612 and Y of 0.774. According to Eisingerich and Rubera (2010), this shows that the

questionnaire items that represent each variable are reliable because Cronbach's Alpha value is > 0.6 .

Classical Assumption Test

Normality Test

Table One-Sample Kolmogorov-Smirnov Test			
		Model 1	Model 2
N		116	116
Normal Parameters ^{a,b}	mean	.0000000	.0000000
	Std. Deviation	1.13501421	1.13439449
Most Extreme Differences	Absolute	.082	.082
	Positive	.082	.082
	negative	-.078	-.075
Test Statistics		.082	.082
asympt. Sig. (2-tailed)		.051 ^c	.052 ^c
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			

Source : Data processed by the author in 2021

Based on the results of the Kolmogorov-Smirnov test above, the value of sig. from model 1 of 0.051 and model 2 of 0.052. This shows that the sig value is greater than 0.05 so that the data from models 1 and 2 are normally distributed.

Multicollinearity Test

Table of Tolerance and VIF . Values			
Variable	Tolerance	VIF	Information
Perceived Risk(X ₁)	0.665	1.504	There is no multicollinearity
Order fulfillment(X ₂)	0.665	1.504	There is no multicollinearity

Source : Data processed by the author in 2021

Based on the table above, the Tolerance value of the X₁ and X₂ variables which is worth 0.665 and the VIF value of 1.504 indicates that there is no multicollinearity problem because the Tolerance value is above 0.1 and the VIF value is below 10.

Heteroscedasticity Test

Glejser Test Table

Variable	Sig.	Information
Perceived Risk(X ₁)	0.662	There is no heteroscedasticity
Order fulfillment(X ₂)	0.597	There is no heteroscedasticity

Source : Data processed by the author in 2021

Based on the Glejser test, the results for X1 are 0.821 and X2 are 0.685. This shows that the model does not experience heteroscedasticity problems because of the sig value. is above 0.05.

Hypothesis Testing 1:

Equation 1: $X_2 = +b_1X_1 + e$

Influence	Sig. /tcount	Coefficient value	Information
Constant	-	14,442	-
Perceived Risk (X1) => Order Fulfillment (X2)	0.00/7.577	1.106	There is a significant influence

Source : Data processed by the author in 2021

Hypothesis Testing 1:

Equation 1: $X_2 = +b_1X_1 + e$

Influence	Sig./tcount	Coefficient value	Information
Constant	-	14,442	-
Perceived Risk(X ₁) => Order Fulfillment (X ₂)	0.00/7.577	1.106	There is a significant influence

Source : Data processed by the author in 2021

Based on the table above the value of sig. X1 to X2 is 0.00 which is smaller than 0.05 and tcount is 7.577 which is greater than ttable(α :0.05/2; df=116-2) of 1.908 indicating that H1 is statistically accepted which means there is an effect significant perceived risk of order fulfillment.

Coefficient of Determination 1:

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.579 ^a	.335	.329	2,716
a. Predictors: (Constant), Perceived Risk				
b. Dependent Variable: Order Fulfillment				

Source : Data processed by the author in 2021

Based on the table above, the value of Adjusted R Square of the independent variable to the dependent variable is 0.329, which means that the perceived risk variable is able to explain the order fulfillment variable by 32.9%, while 67.1% is explained by other variables. The value of e1 in this model 1 is 0.815

The equation of the first model can be denoted as follows:

$$X_2 = 14,442 + 1,106X_1 + 0,815$$

Testing Hypotheses 2 and 3

Equation 2: $Y = +b_1X_1 + b_2X_2 + e_2$

Influence	Sig./t _{count}	Coefficient value	Information
Constant	-	1.072	-
Perceived Risk(X ₁) => Value Customer Co-Creation (Y)	0.049/1.992	0.158	There is a significant influence
Order fulfillment(X ₂) => Value Customer Co-Creation(Y)	0.000/11.615	0.458	There is a significant influence

Source : Data processed by the author in 2021

Based on the table above the value of sig. X₁ to Y is 0.049 which is smaller than 0.05 and t_{count} is 1.992 which is greater than t_{table}(α :0.05/2; df=116-3) of 1.918 indicating that H₂ is statistically accepted, which means there is a significant effect perceived risk to value customer co-creation. sig value. X₁ to Y is 0.000 which is smaller than 0.05 and t_{count} is 11.615 which is greater than t_{table}(α :0.05/2; df=116-3) of 1.918 indicating that H₃ is statistically accepted, which means there is a significant effect order fulfillment to value customer's co-creation.

coefficient of Determination 2:

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.829 ^a	.688	.682	1.144
a. Predictors: (Constant), Order Fulfillment, PerceivedRisk				
b. Dependent Variable: Value Customer Co-Creation				

Source : Data processed by the author in 2021

Based on the table above, the value of Adjusted R Square of the independent variable to the dependent variable is 0.682, which means that the perceived risk and order fulfillment variables are able to explain the variable value of customer's co-creation by 68.2%, while 31.8% is explained by other variables. The value of e_2 in this model 2 is 0.559

The equation of the first model can be denoted as follows:

$$Y = 1.072 + 0.158X_1 + 0.458X_2 + 0.559$$

Hypothesis Testing 4

Mediation Significance Test

Based on the picture above, the Sobel test can be formulated as follows:

Variable	value	s Nilai value
<i>Perceived Risk(X1)</i>	1.106	0.153
<i>Order fulfillment(X2)</i>	0.458	0.039

Source : Data processed by the author in 2021

Based on the results, it can be calculated the t-statistical effect of mediation with the following formula:

$t_{count} = 7,475$ The order fulfillment variable is able to mediate the perceived risk variable on the value of customer's co-creation.

Conclusion

According to my experience transacting through shopee. If consumers feel the transaction risk is low, it will affect shopee's willingness to place an order. When consumers feel they are in accordance with what they want, it will have an impact on the quantity of co-creation behavior, which is no longer beneficial for consumers but is beneficial for many people. For example, making comments, the stimulus is useful for consumers. The risk is low, so he also wants to let you know that trading through shopee is very attractive and there is no risk to be afraid of.

As a suggestion, based on the conclusions described above, the researcher wants shopee to pay more attention to its users in helping the problems experienced by users such as order fulfillment, perceived risk, volume co-creation behavior and the like in order to further increase customer satisfaction and make shopee even more superior in the future.

References

Astuti, D., Tp, FS, & Abstraction, MM (2010). Study on perceived risk on interest to buy online shopping (Case In Online Store [Www.Kaskus.Com](http://www.kaskus.com)). In Indonesian Journal of Marketing Science: Vol. IX (Issue 2). www.kaskus.com

- Eko Bayu Prasetyo, SFZ (2019). the effect of discount price on purchasing intentions through consumer's perceived risk in the flash sale program at shopee .
- Eugene.tafadzwa.maziriri. (2017). the conception of consumer perceived risk toward online. *International Review If Management and Marketing*, 257–265.
- Fadhillah, A., Zebua, Y., & Prayoga, Y. (2021). Analysis of Information Quality, Trust and Satisfaction on Customer Participation (Case Study on Customer Online Shop Shopee In Rantaupraptat). *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(2), 3039–3051 .
<https://doi.org/10.33258/birci.v4i2.2010>
- Fika Ayu Widyanita. (2018). analysis of the effect of shopee e-commerce service quality on shopee Indonesia's customer satisfaction services.
- Ginee. (2021). Understanding the Fulfillment Process to Facilitate the Sales Process. *Www.Ginee.Com*. <https://ginee.com/id/insights/fulfillment-is/>
- GoodNewsFromIndonesia. (2021). Shopee and Tokopedia Become E-Commerce with the Highest Visits Throughout 2020. *Www.Goodinformationfromindonesia.Id*.
<https://www.goodnewsfromindonesia.id/2021/03/21/shopee-dan-tokopedia-jadi-e-commerce-with-kunjungan-tertinggi-sepanjang-2020>
- Kaligis, W. (2018). The effect of perceived risk on customer loyalty through switching cost. *Journal of Service Management and Marketing*, 9(2), 221. <https://doi.org/10.25105/jmpj.v9i2.800>
- Lina Ayu Safitri. (2020). analysis of the influence of the new normal period on online sales through e-commerce shopee. *New Normal, Online Sales , e-Commerce* .
- NA. Rakhmawati. (2021). *ejurnal.technocrat . Ejurna;l.Teknokart*, 15, 32–37.
- Rahayu, A., Krishna Yuliawati, A., & Fakhruddin, S. (2020). Value Creations Through Co-Creation and Collaboration Strategy in SMEs Creative Industry. *Journal of Economics and Business Education (JPEB)*, 8(1), 77–85. <https://doi.org/10.21009/jpeb.008.1.8>
- rajesh.sharma. (2019). managing online product assortment and order fulfillment for superior e-tailing service . 21 August 2019 .
- Rakhmawati, NA, Permana, AE, Reyhan, AM, & Rafli, H. (2021). ANALYSIS OF ONLINE SHOPPING TRANSACTIONS DURING THE COVID-19 PANDEMIC. *Journal of Teknoinfo*, 15(1), 32. <https://doi.org/10.33365/jti.v15i1.868>

- SA Santoso. (2018). features that are superior to the shopee application.
- Setiawan, EB, Wati, S., Wardana, A., & Ikhsan, RB (2020). Building trust through customer satisfaction in the airline industry in Indonesia: Service quality and price fairness contribution. *Management Science Letters*, 10(5). <https://doi.org/10.5267/j.msl.2019.10.033>
- shanliu.wenyixiao.chaofang. (2020). social support, belongingness, and volume co-creation behaviors in online health communities . *Telematics and Informatics* .
- Soehardi, S., Permatasari, DA, & Sihite, J. (2020). The Effect of the Covid-19 Pandemic on Tourist Attractions Revenue and Performance of Tourism Employees in Jakarta. *Journal of Scientific Studies*, 1(1). <https://doi.org/10.31599/jki.v1i1.216>
- Sugiyono. (2016). Sugiyono, Research Methods. Sugiyono.
- Sugiyono. (2019). EDUCATIONAL RESEARCH METHODS. In Bandung: Alfabeta.
- xiasa.district. (2021). understanding non-adopters intention to use internet pharmacy . *Journal of Engineering and Technology Management*.
- Zu, E., Liu, SY, Hsu, BM, Wang, YC, & Lau, EM (2020). An analysis of the success factors for passenger boarding enthusiasm for low-cost regional airline routes. *Sustainability* (Switzerland), 12(16). <https://doi.org/10.3390/su12166600>