Effects of Social e-Commerce on Consumer Behavior

Ford Lumban Gaol [1*], Mulia Denavi [2], Jonathan Danny [2],
Bagas Ditya Anggaragita [2], Andry Hartanto [2], Tokuro Matsuo [3]

[1] *Department of Computer Science, Bina Nusantara University, Jakarta, Indonesia.*

[2] *Faculty of Information System Management, Bina Nusantara University, Jakarta, Indonesia.*

[3] *Advanced Institute of Industrial Technology, Tokyo, Japan.*

Abstract

Objectives: The purpose of this research is to conduct an examination of intention factors for using social commerce in Indonesia. *Methods/Analysis:* This research is a quantitative study that applies the customer analysis model to four big social commerce sites in Indonesia. This study uses the multivariate regression method and IBM SPSS 25 software to prove the relationship between research variables. *Findings:* Variables will include performance expectations, effort expectations, societal effects, supportive circumstances, and cost savings. Data from 210 online respondents in Indonesia were collected. *Novelty and Improvements:* Positive outcomes are provided by the model as a result of changes in the use of social commerce.

Keywords: Social Commerce; Multivariat Regression; Performance Expectancy; Effort Expectancy; Facilitating Condition; Social Influence; Price Saving.

1. Introduction

In the age of globalization, the internet serves as a multi-functional medium. The use of the internet plays an important role in people's lives, including in the sales business. As a result of the internet's continued growth, internet usage has increased year after year. According to a 2021 poll by the Indonesian Internet Service Providers Association (APJII), internet users rose by up to 193.6 million individuals, or around 57.91% of Indonesia's total population of 293 million people scattered throughout many areas [1]. Because of the increasing use of the internet, many companies use e-commerce as a business tool because of the ease of conducting business transactions online. E-commerce has changed the pattern of business between producers, distributors, and consumers, which has resulted in new platforms using the internet as a competitive strategy [2]. From this business pattern, the process of purchasing goods on e-commerce makes this business rapidly develop in the community because the process is quite simple. Today, the community is getting used to buying products or services through an online shopping website rather than going to conventional stores [3]. But the phenomenon of e-commerce is now changing to social-commerce, using design and new features, adding social media technology and Web 2.0 in e-commerce, such as content creation tools to increase user interaction and allow users to gather information before making online transactions [4]. At the moment, e-commerce customers desire a more social and engaging experience, which is why they seek online application-based services on commercial websites [5].

Some social commerce sites are developing in Indonesia and are the most frequently visited by consumers. The main reason someone shop at social commerce sites is as a means of shopping and can find the desired item quickly without spending a lot of time and energy. The rapid growth of social commerce is important because integrating reviews and evaluations into sites and sharing products on social networking sites can help consumers meet their needs and increase sales [6]. According to the Mobile shopping survey by iPrice Insights in 2017, Indonesian consumers use 52 percent more shopping cars than 48 percent of desktop shopping. This is also one of the main capitals for building application-based social commerce [7, 8].

According to Caldas [9], e-commerce is the activity of people acquiring and selling goods online using computers to serve as a middleman in business transactions. It is also said that e-commerce is an electronic trading tool where transactions are carried out electronically through internet networks. The existence of e-commerce itself is known as a phenomenon where an online store site that has advertising facilities, sales, and service support for all its customers by using an online, web-based internet store can operate every day for 24 hours. Social commerce itself is the development of evolving e-commerce or ecommerce. According to various sources, including Huang & Benyoucef [5], Esmaeili et al. [11], and Marsden & Chaney [12], internet-based commercial applications leverage Web 2.0 as a social media technology to facilitate digital relationships as well as the user's role in the acquisition of acceptable items and services. Additionally, Marsden & Chaney [12] assert that integrating social media with e-commerce is basically an extension of the concept of viral communication to e-commerce. In other words, social commerce is a part of e-commerce that extends social media, an online medium that allows for social engagement and user contributions in order to improve consumers' online purchasing experiences. Additionally, it is said that social interaction tools such as product reviews, ratings, videos, blogging, live chat, and online forums should be included in e-commerce sites [13]. This activity entails the use of social media as an online medium to facilitate social contact and user participation in the process of making online goods purchases and sales.

The purpose of this study is to validate the analytical framework and conceptual model built for social commerce by studying the intentions of social commerce customers. Additionally, we will study how price reductions affect behavioral intentions for online purchases. As a consequence, it is vital to explore how social commerce users' behavioral intentions to buy are accepted in Indonesia.

2. Extended Unified Theory of Acceptance and Use of Technology (UTAUT2)

Theoretical frameworks are developed by experts to explain the link between the adoption and usage of technology. The unified theory of acceptance and use of technology (UTAUT) model published by Venkatesh et al. [14] was based on the behavior of technology users and the technology acceptance model. Since the release of UTAUT, this framework has been shown to be fairly generalizable, and it has been used to investigate the role of technology uptake and use in corporate settings [15].

The UTAUT2 model shows that a person's behavior toward using certain technologies, such as social commerce, is influenced by the following factors:

- *Performance expectancy:*

    Users are able to understand the advances in information technology today, for example the growing number of online stores that can be accessed through mobile devices or internet-connected laptops. This makes it easy for users to make transactions, users are also expected to be able to make transactions faster in the purchasing process and can save time.

- *Effort expectancy:*

    Users get convenience when accessing social commerce, so interest in buying products online increases because of the ease of operation. When an e-commerce website is easy to use, users will feel comfortable.

- *Facilitating condition:*

    Users have the resources to support online purchases using social commerce, such as infrastructure such as mobile phones, laptops, PCs, internet networks.

- *Social influence:*

    Users believe that other people who have online transaction experience can influence someone's intention to make online transactions on a social commerce site.

- *Price saving:*

    Users believe that consumers by transacting online can find lower prices by using the internet for online purchases, feel the benefits of using technology, thus increasing the intention to use social commerce.

3. Research Methodology

Steps that must be taken in order to solve a problem are required when developing a research model. The research model is formed through a review of the literature, including proceedings, book chapters, and journal articles on social commerce, both online and offline [16]. According to Newsted et al. [17], and Gupta et al. [18], there is a link between independent factors acting as influencing variables and dependent variables acting as impacted variables. The goal of this research is to determine the degree to which the community utilization objective influences social commerce websites.

In addition, defines quantitative research techniques as those used to analyze specific populations or groups [19, 20]. Generally, sampling approaches are random. The data gathering is carried out using research methods, and the data will be processed using stochastic and non-parametric approaches with the goal of testing a preconceived hypothesis [21, 22]. In Figure 1, we can see a description of the research framework model that shows the relationship between each variable in the analysis model.
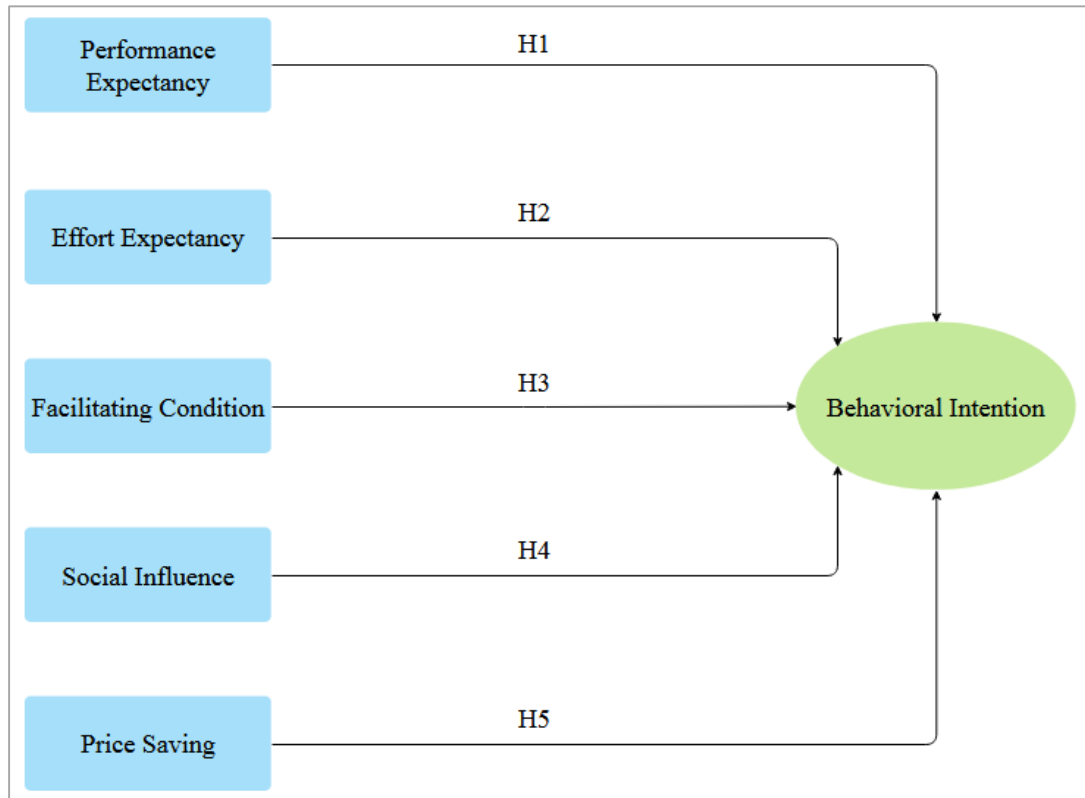

Figure 1. Research Model

To validate the study model, data were gathered using an online questionnaire survey. Respondents will be asked questions depending on the study model's criteria [18]. The quantitative survey's data will subsequently be analyzed utilizing multi regression statistical methods. The following is the regression equation derived from the analysis model:

$$Y = a + b_1X_1 + b_2 X_2 + b_3X_3 + b_3X_4 + b_5X_5 + e \tag{1}$$

where, Y is Behavioral Intention; a is Constants; X_1 is Expected Performance; X_2 is Expected Effort; X_3 is Influence in Society; X_4 is Facilitating Condition; X_5 is Cost Savings; *b* is Regression Coefficient; and e is Errors.

The f-test will be used to validate the study model. Once it is shown that some factors have a substantial impact, a t-test will be used to assess whether or not these variables influence the desire to use social commerce. Additionally, normality and multicollinearity tests will be utilized to assess the data and study model's validity [23].

4. Data Collection Technique

To validate the conceptual model, a survey is conducted since it is a quantitative research tool that elucidates how individuals respond and investigates the relationship between components [17]. Numerous specialists have already utilized survey methodologies to examine behavior in the field of social commerce [24, 25]. We collected data for this study using online surveys. Internet users who have shopped on social commerce sites that are eligible to participate. The author employs online polls due to their numerous advantages, including their broad reach and ease of dissemination. Additionally, online questionnaires may be used to create data consistency throughout study and data gathering contexts [25]. As a result, the authors conclude that an online survey is the ideal strategy for conducting this research.

5. Data Analysis Technique

A single dependent variable, behavioral intention, and five independent factors comprise the study paradigm. Business expectation (performance anticipation), capability expectation (accomplishment confidence), social impact (social influence), facilitating factors (facilitating conditions), and price savings are the five independent variables (price savings). The data will then be evaluated in this research to develop a hypothesis based on the connection between the variables [26].

According to the assumption being evaluated in this study, it pertains to the presence or absence of an effect of a substantial link among the independent (independent) variable and the dependent (dependent) variable [2, 3]. Based on the above theoretical basis, we can come up with a hypothesis about social commerce:

H1: Expectations for performance when it comes to leveraging social commerce while making an internet transaction have a beneficial influence on online purchasing intentions.

H2: Effort Expectations about the utilization of social commerce for online transactions influence online purchase intentions positively.

H3: Social influence has a positive impact on online purchasing inclinations when it comes to the utilization of social commerce for online purchases.

H4: A Facilitating Condition is one that is felt while using social commerce for online transactions. This condition has a beneficial effect on online purchases.

H5: Price saving and the benefits felt in using social commerce for online purchases have a beneficial effect on online purchases.

The author evaluates the thoughts and perceptions of a person or a group of people regarding the phenomenon of social commerce using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). In the use of the Likert scale, there are two forms of questions, namely positive questions and for measuring positive scales and measuring negative scales for negative questions. In this study, positive questions in the form of Likert scales were used.

6. Results

The findings of this study employing the survey technique of data collecting, this study was obtained from internet users who had been shopping on social commerce. Due to the large population, the researchers determined the number of samples ranged from 100-500 based on the requirements of maximum likelihood or generalized least square estimation shown in the table below. Of all the questionnaires distributed to the community, only 210 respondents filled them out. The respondents' data were re-selected depending on whether the respondents' responses were legitimate. The study's erroneous data assumption is that respondents' responses are all 1 or all 5. The survey findings in Table 1 summarize the responses on an average basis.

Table 1. Data Respondent

Gender	Male	63
	Female	147
	Total	*210*
Age	<17 years	5
	17-31 years	150
	32-41 years	44
	>42 years	11
	Total	*210*
Last Education	Primary School	0
	Junior High School	10
	Senior High School	38
	DIPLOMA	0
	Bachelor Degree	156
	Master Degree	6
	Doctoral Degree	0
	Total	*210*
Social Commerce	Tokopedia	136
	Bukalapak	42
	Lazada	21
	Shopee	11
	Total	*210*

6.1. Normality Test

The normality test is used in this research model to examine whether or not the residual value generated from the regression is regularly distributed. The data distribution is centered on the diagonal line and parallel to it. One may argue that the regression model adheres to the normality assumption. A normal residual value may be shown in Figure 2 by observing the dots' distribution along the line and following the diagonal.
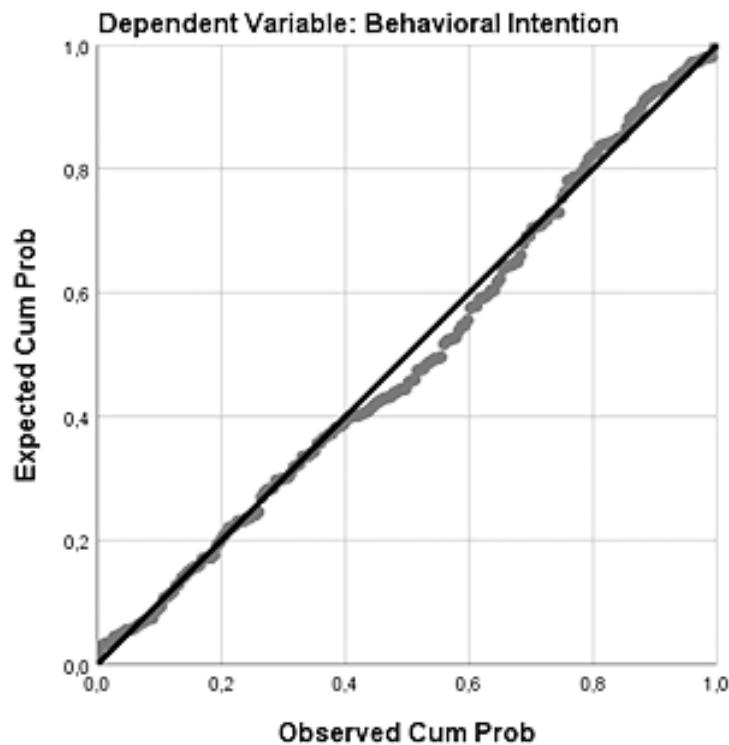

Figure 2. Normal P-P Regression Plot Residual Standardization

Analyze data to determine whether or not they follow a normal distribution. When the threshold of significance is greater than 0.05, the data is regarded to be normally distributed. If the significance threshold is less than 0.05, however, the data are not normally distributed.

As shown by the Kolmogorov-Smirnov test result (Table 2), the significant value (Asymp. Sig 2-tailed) is 0.054. The residual value is normal since the significance level exceeds 0.05.

Table 2. Kolmogorov-Smirnov One-Sample Test

		Unstandardized Residual
N		210
Normal Parameters	Mean	0.00000001
	Std. Deviation	0.29909168
Most Extreme Differences	Absolute	0.061
	Positive	0.061
	Negative	-0.032
Test Statistic		0.061
Asymp. Sig. (2-tailed)		0.054

6.2. Multicollinearity Test

A decent regression model is devoid of several symptoms associated with conventional assumptions, one of which is multicollinearity. To ascertain the relationship among the independent variables, this multicollinearity test is used in combination with multiple regression. According to the VIF rules, if the VIF value is 10, the regression model is free of multicollinearity assumptions; on the other hand, if the VIF value is greater than 10, the regression model has a multicollinearity disorder.

The output generated in Table 3 is VIF performance variable (1,024), VIF variable effort (1,035), VIF social influence variable (1,018), facilitating variable VIF (1,033) and VIF variable saving value (1,025). Because the VIF value for all of these variables is <10, we could decide that there is no multicollinearity disorder or in other words this regression model is free from the symptoms of multicollinearity.

Table 3. Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
Constant	-	-
Performance	0.985	1.015
Effort	0.991	1.009
Social Influence	0.995	1.005
Facilitating	0.993	1.007
Price Saving	0.992	1.008

6.3. Coefficient of Determination

From the output generated from data processing using spss, the determination coefficient is 0.527 or 52.70% (Table 4). As a result, the dependent variable may be explained by this research model to a maximum of 52.70 percent. While the remainder can be accounted for by elements that were not taken into account throughout this investigation.

Table 4. Determination Coefficient

Model	R	R Square	Adjusted T Square	Std. Error of the Estimate
1	0.726	0.527	0.516	0.302734

7. Discussions

The results of the F statistical test shown below (Table 5) imply that H0 is rejected, since the significance level is less than 0.025 and the F count (40.133) above the F table threshold value (2.42). The findings indicate that independent variables have an effect on dependent variables (behavioral intention).

Table 5. F Test Statistics

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	20.839	5	4.168	45.475	0.0001
1	Residual	18.696	204	0.092		
	Total	39.535	209			

7.1. T Statistics Tests

According to the findings of the T statistical test on the data in Table 6, it is clear that:

- In the variable X1 (performance expectancy) a T-test is performed, the result is H0 rejected due to the fact that the significance level is smaller than 0.025 and T count (3.990) is more than T table (1.97) which is statistically, This result shows variable X1 (performance expectancy) affect the variable Y (behavioral intention).

- In effort expectancy variable T test is performed, the result of H0 is rejected due to the fact that the significance level is smaller than 0.025 and T count (8.556) is more than T table (1.97) which is statistically, This result shows X2 variable (effort expectancy) affect Y variable (behavioral intention).

- In the X3 variable (social influence) a statistical test is performed t, the result is H0 rejected due to the fact that the significance level is smaller than 0.025 and T count (9.623) is more than T table (1.97) which is statistically, This result shows the X3 variable (social influence) affect the variable Y (behavioral intention).

- In the X4 variable (facilitating condition) a statistical test is performed t, the result is H0 rejected due to the fact that the significance level is smaller than 0.025 and T count (5.416) is more than T table (1.97) which is statistically, This result shows variable X4 (facilitating condition) affect the variable Y (behavioral intention).

- In the X5 variable (price saving) a statistical test is performed t, the result is H0 rejected due to the fact that the significance level is smaller than 0.025 and T count (5.134) is more than T table (1.97) which is statistically, This result shows the X5 variable (price saving) affect the variable Y (behavioral intention).

As a result of the significance level was less than 0.025 and T count surpassed T table, the variables performance expectation, effort expectation, social impact, enabling circumstance, and price saving resulted in the rejection of H0, according to the explanation above (1.97).

Table 6. Hypothesis Tests

Model		T	Sig.
	Constant	-5.321	0.000
	Performance Expectancy	3.990	0.000
	Effort Expectancy	8.556	0.000
1	Social Influence	9.623	0.000
	Facilitating Condition	5.416	0.000
	Price Saving	5.134	0.000

As we find in the research result, the Behavioral Intention was influenced by performance expectations, effort expectations, social influence, enabling conditions, and price savings. The result was in line with the research reported by Chauhan & Shah [23]. We also reported that Performance expectancy have a favorable effect on one's motivation to participate in social commerce. This result aligned with Anastasiadou et al. [2]. We also reported that "effort expectancy" is associated with an increase in the propensity to engage in social commerce, or the greater one's willingness to trade via social commerce. This result was supported by the results shown by Jílková & Králová [16]. We could conclude that the research result from this paper was aligned with and supported by Anastasiadou et al. [2], Jílková & Králová [16], and Chauhan & Shah [23].

8. Conclusions

According to the study findings, which were gathered via the distribution of online questionnaires to respondents who had completed purchases on social commerce websites. The results of the data were tested by the linear regression method and concluded as follows:

- In social commerce, the intention to use (Behavioral Intention) is impacted by elements such as performance expectations, effort expectations, social influence, enabling conditions, and price savings;

- Performance expectations (performance expectancy) have a favorable effect on one's motivation to participate in social commerce, such that the higher one's expectation of good performance when engaging in social commerce, the greater one's readiness to trade through social commerce;

- Business expectations (effort expectancy) are associated with an increase in the propensity to engage in social commerce, such that the larger one's positive effort expectancy in utilizing social commerce, the greater one's willingness to trade via social commerce;

- Social effect favorably affects a person's desire to participate in social commerce; hence, the more positive social influence connected with social commerce, the greater a person's propensity to trade on social media;

- Facilitating variables influence the objective to favorably impact social commerce, such that the more favorable facilitating circumstances present for using social commerce, the greater the desire for someone to trade through social commerce;

- Price savings have a positive implication for the goal of engaging in social trade, such that the more beneficial the price savings associated with utilizing social commerce, the greater the desire for someone to trade via social commerce;

- At 0.726, the five factors may account for the effect on behavioral intention and have a moderate association with the goal of trading through social commerce. The Rsquare value of 0.527 demonstrates this.

9. Declarations

9.1. Author Contributions

9.2. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

9.3. Funding

9.4. Acknowledgements

9.5. Institutional Review Board Statement

Not Applicable.

9.6. Informed Consent Statement

Not Applicable.

9.7. Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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