Factors that influence use of social commerce: An empirical study from Indonesia

by Arief Rahman

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ABSTRACT

This research aims to analyze the factors that affect the acceptance of social commerce, including performance expectancy, effort expectancy, social support, facilitating conditions, hedonic motivation, habitability, price saving orientation, and privacy concerns using the Unified Theory of Acceptance and Use of Technology (UTAUT2). The research model studies the acceptance and use of a technology in the context of customers by adding variable privacy concern into the research construct. This study adopt a quantitative approach involving 244 respondents and applying a purposive sampling, where only the samples have certain criteria to be analyzed. The result of this research indicates that social influence, facilitating conditions, hedonic motivation, habit, price value orientation, privacy concerns have a significant effect in behavioral intention. On the other hand, performance expectancy and effort expectancy does not affect behavioral intention. Furthermore, price value has a significant effect in use behavior. Lastly, facilitating conditions and habits does not affect the use behavior of social commerce. Implications of the results are discussed in the article.

Keywords: Social commerce, UTAUT2, privacy concern, Indonesia
JEL Classifications: M15, M40, N35

1. INTRODUCTION

The number of global Internet users continues to grow and has reached 4.1 billion users by 2019, reflecting an increasement of 5.3 percent compared with 2018 (International Telecommunication Union, 2019). In Indonesia, based on the survey in 2018 by Indonesian Internet Service Provider Association (*Asosiasi Penyedia Jasa Internet Indonesia* – APJII), has also recorded a significant increase of 29 percent, soaring rapidly within two years from 132.7 million in 2016 to 171.2 million Internet users by 2018. Highlighting the main reasons for Internet usage, the survey results show the need for communication via instant messaging dominates the reasons of the Internet users (24.7 percent), followed by social media usage (18.9 percent). Internet users in Indonesia are actively engaging in social networks, with Facebook (50.7 percent), Instagram (17.8 percent), and YouTube (15.1 percent) being the most visited social media platform (APJII, 2019).

Recent web technology brings advanced communication tools to encourage active user interaction and make social media a vast space of global networking. In addition, web technology has sparked the rise of social commerce (s-commerce) as a novel subset of electronic commerce, where social media users act as the main content providers to share experiences and knowledge about a particular product or service (Hajli & Sims, 2015; Zhang et al., 2014). Social media platforms, such as Facebook, Instagram, and YouTube provide features where its users can express their personal reviews of products or services that have been purchased into their social media networks. Such features enhance user participation and facilitate electronic word-of-mouth (eWOM) communication, social interaction, and social sharing that can affect online sales (Khan, 2017; Phang et al., 2013).

Social commerce in Indonesia is among emerging issues that has received much attention along with the positive fact that the increasing number of Internet and social media users has made this country considered a large and promising digital marketplace. Within social commerce, customers not only become passive recipients of information, but also play an active role to share, discuss, endorse, and rate a product based on their experiences (Al-Adwan & Kokash, 2019).

Therefore, it is important to understand the key drivers influencing user behavior in the context of social commerce acceptance. Previous studies has demonstrated technology acceptance levels as a key driver to encourage users from different countries to adopt social commerce, such as in Saudi Arabia (Sheikh et al., 2017), Lithuania (Gatautis & Medziausiene, 2014), and Malaysia (Sin et al., 2012). Another former researches have also examined online privacy issues that affect users when it comes to disclosing their personal information into social networking websites (Herrero et al., 2017), institutional privacy assurance formed by s-commerce sites (Wang & Herrando, 2019), and how such privacy concern could affect the online purchasing behavior (Fortes & Rita, 2016).

This research is aimed to analyze factors affecting social commerce acceptance, by referring to the previous studies conducted by Sheikh et al. (2017) and Herrero et al. (2017), and taking the case to analyze user behavior in Indonesia as one of the emerging economy with great potential for social commerce growth. Carrying out a similar research approach on geographically different subjects is remain important and reasonable because the behavior of s-commerce users will differ across cultures (C. S. P. Ng, 2013). This study applies the UTAUT2 model by including the following measurement variables: performance expectancy, business expectancy, social support, facilitating conditions, hedonic motivation, habit, and price-saving orientation. Besides, the research construct will be modified by adding privacy concerns as an additional variable to measure user behavioral intentions.

2. LITERATURE REVIEW
2.1. Social Commerce

The role of social media in today's e-commerce practices is fundamental to create value for customers. Social media is the main platform underlies social commerce, providing a broad space for discussion between consumers and also with brands which in turn drives the ups and downs of profitability and affect the company's reputation (Tikno, 2017). Social commerce produces information-driven consumers where consumers become the key strategic players to affect other

consumers' purchasing intention or behavior (Gibreel et al., 2018). Social commerce practice is steered by three major attributes, including social media technologies, social interactions, and commercial activities, where social media and commercial activities form the basis of social commerce practices (Liang et al., 2011). S-commerce includes the conduct of commercial activities at all stages, whether in the need recognition, pre-purchase, purchase, and post-purchase activity, which conducted in a social media environment where consumers can connect and interact with others (Ko, 2018).

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

Among the analytical models used in many studies to measure individual behavior in adopting technology is the Unified Theory of Acceptance and Use of Technology (UTAUT) model developed by Venkatesh et al. (2003). This model was initialy designed based on the organizational contexts to analyze factors that affect employees' intention and actual use of information technology using four direct determinants that affect user acceptance and usage behavior toward information technology adoption, namely performance expectancy, effort expectancy, social influence, and facilitating conditions, and apply four key moderators for those determinants including gender, age, experience, and voluntariness of use (Escobar-Rodríguez & Carvajal-Trujillo, 2014; Herrero et al., 2017; Macedo, 2017).

Further research conducted by Venkatesh et al. (2012) put an extension to the original UTAUT model by adding three new explanatory variables including hedonic motivation, price value, and habit. This extended model is known as UTAUT2. Instead of focusing primarily on the organizational contexts, UTAUT2 aims to provide a framework to explain factors, by applying analysis using multiple constructs at the individual level (see Table 1), which determine user intentions to adopt and the actual use of new technologies. Analytical model using UTAUT2 has been adopted by numerous studies to demonstrate the factors influencing acceptance and use of technology by customers such as in the case of online purchase tickets (Escobar-Rodríguez & Carvajal-Trujillo, 2014), mobile payment (Morosan & Defranco, 2016), social networking sites

(Herrero et al., 2017), digital divide (Chipeva et al., 2018), and mobile banking (Alalwan et al., 2017).

Table 1. Definition of constructs in UTAUT2 model

Constructs	Definitions
Performance expectancy	"The degree to which using a technology will provide benefits to users in performing certain activities"
Efforts expectancy	"The degree of ease associated with the use of technology by users"
Social influence	"The extent to which users perceive that important others (e.g., family and friends) believe they should use a particular technology"
Facilitating conditions	"Users' perceptions of the resources and support available to perform a behavior"
Hedonic motivation	"The fun or pleasure derived from using a technology"
Price value	"Users' cognitive tradeoff between the perceived benefits of the applications and the monetary cost for using them"
Habit	"The extent to which people tend to perform behaviors automatically because of learning"

Source: Venkatesh et. al. (2012)

2.3. Privacy Concern

Privacy concern indicates user responses about possible leaks and potential misuse of personal information (Sun et al., 2019). Every person has a reasonable desire and inherent need to be able to keep and set limits around their personal information in order to remain private and free from the interference of others (Choi & Land, 2016; Jeong & Kim, 2017). In connection with technology acceptance issue, disclosure of personal information considered to be potential cost, and may negatively affect user intention and acceptance in adopting a technology (Fortes & Rita, 2016). Furthermore, such anxiety may develop a system-related privacy concerns as user may believe that a given technology is not appropriate to protect their privacy (Morosan & Defranco, 2016). In social commerce practices, privacy concerns for Internet users can be associated with lower trust and an increased risk when they provide personal information for benefits such as free membership. The potential risks that occur can differ from information leaks to attacks on online social networks (Kayes & Iamnitchi, 2017). This study adds privacy concern as an independent variable in the

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existing UTAUT2 model to measure the intention to adopt and actual use of technology at the individual user level.

2.4. Hypotheses Development

UTAUT2 model explains that performance expectancy can affect behavioral intention and use of technology. When users engage in social sommerce and they get a faster experience and increased productivity in completing an online transaction process, this can also increase users' intention to make purchases through social commerce. Hence, the first hypothesis can be formulated as follows:

H1: Performance expectancy in the use of social media websites for online purchases has a positive effect toward online purchase intentions.

Effort expectancy is the convenience level associated with the use of technology and that is believed to affect the users' adoption behavior. This degree of cosiness can be measured when users perceive that practicing social commerce is easy and effortless, thus encouraging higher expectancies to get the desired performance which can influence their behavior in making online purchases via social commerce. Second hypothesis is formulated as follows:

H2: Effort expectancy in the use of social media websites for online purchases has a positive effect toward online purchase intentions.

Social influence deals with the effect of social interactions and relationships, such as opinions of friends, family and other important relatives, to persuade and convince users to adopt social commerce. This means that the stronger the influence of the social environment will increase the user's intention to make purchases through social commerce. Facilitating conditions encourage the user behavioral intentions and use behavior. In this context, the higher the support and availability of technological resources (i.e. Internet, mobile phones) to access and practice social commerce can increase the behavioral intentions and use behavior in social commerce. The hypothesis is formulated as follows:

H3: Social influence concerning the use of social media websites for online purchases has a positive effect toward online purchase intentions.

H4: Facilitating conditions concerning the use of social media websites for online purchases has a positive effect toward online purchase intentions.

H5: Facilitating conditions concerning the use of social media websites for online purchases has a positive effect toward online purchase use

UTAUT2 indicates that hedonic motivation can also determine the behavior intention to adopt a technology. The more users presume that using social commerce will increase their personal satisfaction or enjoyment, the higher their intention to make a purchase in social commerce. Thus, the next hypothesis is formulated as follows:

H6: Hedonic motivation concerning the use of social media websites for online purchases has a positive effect toward online purchase intentions.

Habit indicates how individuals become proficient in using a particular technology because of the repetitive usage in their daily life. UTAUT2 indicates that habit construct has a direct effect on the actual technology usage and adequate influence on use intention. The higher level of habits in using social media will encourage behavioral intention and use intention to adopt social commerce in making online purchases. Hypotheses are as follows:

H7: Habits concerning the use of social media websites for online purchases has a positive effect toward online purchase intentions.

H8: Habits concerning the use of social media websites for online purchases has a positive effect toward online purchase use.

Price value in UTAUT2 has been included as predictor of behavioral intention to use technology. Users will also consider lower prices as benefit in the use of technology. Therefore, price value represents more perceived value or benefits in adopting technology. Referring to the previous research conducted by Sheikh et. Al. (2017), price savings (aside from price values as stated in UTAUT2) and perceived benefits were preferred to be determinants which believed not

only to influence users' behavioral intentions, but also their intention to adopt social media to make online purchases. This paper will adopt price value as a construct to formulate the following hypothesis:

H9: Price value concerning the use of social media websites for online purchases has a positive effect toward online purchase intentions.

H10: Price value concerning the use of social media websites for online purchases has a positive effect toward online purchase use.

Online social networks are built on a foundation of trust where users connect with other users with similar interests or overlapping private trajectories. Therefore, online social networks and related applications can extract an unprecedented amount of personal information giving rise to potential losses caused by disclosing personal information that would raise suspicions and create a negative impact on the use of technology (Kayes & Iamnitchi, 2017; Morosan & Defranco, 2016). This paper applies privacy concern as a construct to examine its influence in online purchase intentions. Finally, UTAUT2 measures that the level of intentions will affect the rate of technology usage. This construct reflects that the higher intentions in the use of social comerce will affect online purchases made through social commerce. Research constructs of this study is shown in Figure 1.

H11: Privacy concern regarding the use of social media websites for online purchases has a positive effect toward online purchase intentions.

H12: Purchase intentions concerning the use of social media websites for online purchases has a positive effect toward online purchase use.
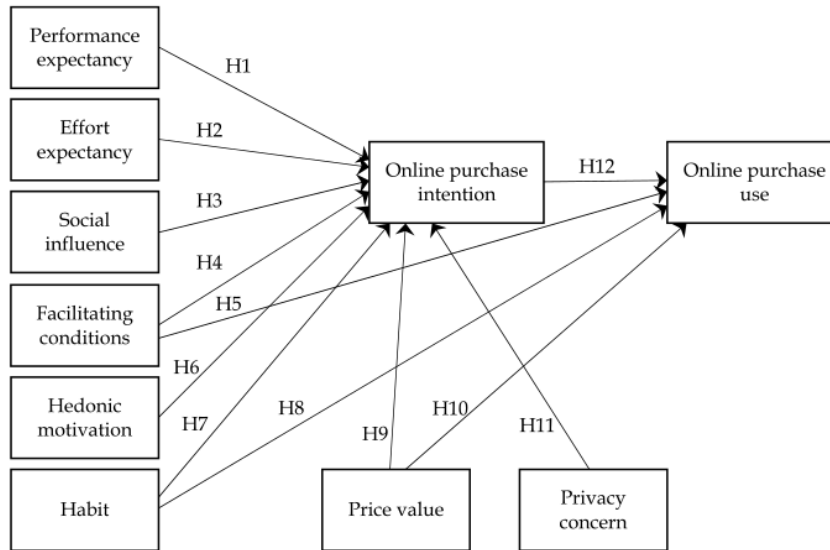
Figure 1. Research Model

3. METHODOLOGY

3.1. Population and Sample

Population of this research is social media users residing in Indonesia. Sampling technique used in this study is a purposive sampling with two criteria applied to the target respondents, including the active social media users who have at minimum one social media account (Facebook, Twitter, Instagram, Line, and YouTube), and at least have made a single online transaction via social commerce. Data were collected using a questionnaire (both offline and online) consisting 49 questions with 6-point scale to have respondents give to either positive or negative end of the scale (to avoid indecisive answer choice). The determination of the minimum sample quantity for Structural Equation Modeling (SEM) is depend on the highest number of indicators from one variable multiplied by ten (Hair et al., 2011), so the minimum number of samples to be tested in this research is 80 respondents.

In this study, a total of 250 questionnaires were distributed to the target respondents by by direct distribution and sharing the hyperlink (via online Google Forms) to complete the survey. Within the data collection period, the returned questionnaires reached 247 (98.8%), including 244

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(97.6%) complete results that eligible to be used for the analysis, and the remaining 3 responses with incomplete results. Based on the sample data collected, the characteristics showed 237 respondents were high school, diploma, and bachelor degree students with age range between 21-25 years (70,5%) and under 20 years (10,3%). Under these conditions, this data sample is considered relevant for testing research instruments because the data sample obtained meets the demographic characteristics of the generation group (Generation Y) that has competent digital literacy (tech savvy) and has a higher potential to adopt an unfamiliar new technology (Boonsiritomachai & Pitchayadejanant, 2019; W. Ng, 2012; Oliveira et al., 2016).

3.2. Measurement Development

Structural equation modeling (SEM) is a technique for measuring causal relationships by using a combination of statistical data and a qualitative causal hypothesis. In particular, this study adopts SEM with variance-based technique using partial least squares (PLS), which is suitable for this research since not all items in the data analyzed are distributed normally (Hair, Ringle & Sarstedt, 2013; Oliveira et. al. 2016). PLS known as a method for constructing predictive models involving various number and highly collinear factors, which corresponds to the hypothesised constructs used in this study. PLS can be applied to any data scale and does not require a large sample size (Pangesti & Sumertajaya, 2016). PLS-SEM analysis in this research is applied in two stages, including the measurement model (outer model) and the structural model (inner model).

4. RESULTS

4.1. Descriptive Statistics

Table 2 provides an overview of the respondents' profile involved in this research. Descriptive data presented in the table includes demographic information on the numbers and percentages of respondents classified by gender, age, education background, occupation, and income. Descriptive statistics in Table 3 present the mean value of each variable measurement with a relatively low standard deviation (0.85 to 1.17), indicating low heterogeneity of the respondents' answers. Most of the measurement results provide tend to agreed statements (>3.70), with the

exception on the privacy concern measurement where the propensity of respondents to show their disapproving statements (2.39).

4.2. Measurement Model

Convergent validity testing is conducted by measuring the outer loading of the construct indicators to identify the instrument items that can be used as indicators of all latent variables. Under PLS-SEM, the convergent validity testing is measured by the outer loadings (>0.70) and Average Variance Extracted (AVE) to be greater than 0.05. Composite reliability shows the value of the consistency of each indicator in measuring its construct, with minimum value is 0.70.

Based on the first pilot test, result shows that there are several variables with outer loading values below 0.70 including EE3, HM4, HM5, PC4, PC5, PE1, PE2, PE5, SI2, SI6 and UB1, nonetheless the AVE value for each of mentioned variable has been greater than 0.50 and composite reliability also shows result above 0.70. Hence, it can be concluded that the research instrument on the first pilot testing is reliable but not yet valid. Then second pilot test was performed by removing the unperformed indicators and retesting the research instrument. The results of the second pilot test indicate that the research instrument has been valid and reliable (see Table 4).

Table 2. Demographic characteristics of respondents

Characteristic	N	%
Gender		
Female	174	71.3%
Male	70	28.7%
Age		
≤ 20 years old	25	10.3%
21-25 years old	172	70.5%
26-30 years old	24	9.8%
31-35 years old	9	3.7%
>35 years old	14	5.7%
Education background		
Senior high school	111	45.5%
Diploma degree	51	20.9%
Bachelor/undergraduate degree	75	30.7%
Master degree	7	2.9%
Occupation		
High school students	3	1.2%
University students	161	66%

Government officials		19	7.8%
SOE employees		5	2%
Private company employees		27	11.1%
Entrepreneurs		15	6.1%
Others		14	5.7%
Income			
< Rp 1,000,000		95	38.9%
Rp 1,000,000 – Rp 2,500,000		80	32.8%
Rp 2,500,000 – Rp 5,000,000		43	17.6%
Rp 5,000,000 – Rp 10,000,000		19	7.8%
> Rp 10,000,000		7	2.9%
Total respondents		244	100%

Table 3. Descriptive statistics of variable measurements

Variable	n	Mean	Min	Max	Std. Deviation
Peformance expectancy	244	4.75	2.00	6.00	0.93
Effort expectancy	244	4.78	2.00	6.00	0.85
Social influence	244	3.98	1.00	6.00	1.03
Facilitating conditions	244	4.83	1.00	6.00	0.89
Hedonic motivation	244	4.58	2.00	6.00	0.98
Habit	244	3.79	1.00	6.00	1.17
Price value	244	4.51	2.00	6.00	0.99
Privacy concern	244	2.39	1.00	6.00	0.95
Online purchase intention	244	4.09	2.00	6.00	1.06
Online purchase use	244	4.09	2.00	6.00	1.12

Table 4. Pilot test results

Variable	Item	Outer Loadings	Cronbach's Alpha	Composite Reliability	AVE
Online purchase intention	BI1	0.788	0.870	0.906	0.660
	BI2	0.870			
	BI3	0.792			
	BI4	0.734			
	BI5	0.870			
Effort expectancy	EE1	0.832	0.868	0.910	0.716
	EE2	0.806			
	EE4	0.848			
	EE5	0.895			
Facilitating conditions	FC1	0.876	0.891	0.919	0.696
	FC2	0.826			
	FC3	0.861			
	FC4	0.786			
	FC5	0.818			

Variable	Item	Outer Loadings	Cronbach's Alpha	Composite Reliability	AVE
Habit	HA1	0.929	0.924	0.946	0.813
	HA2	0.894			
	HA3	0.893			
	HA4	0.891			
Hedonic motivation	HM1	0.828	0.794	0.878	0.706
	HM2	0.838			
	HM3	0.855			
Privacy concern	PC1	0.921	0.904	0.940	0.838
	PC2	0.930			
	PC3	0.896			
Performance expectancy	PE3	0.861	0.891	0.924	0.752
	PE4	0.802			
	PE6	0.882			
	PE7	0.919			
Price value	PSO1	0.752	0.849	0.898	0.688
	PSO2	0.927			
	PSO3	0.796			
	PSO4	0.834			
Social influence	SI1	0.741	0.840	0.893	0.677
	SI3	0.864			
	SI4	0.853			
	SI5	0.829			
Online purchase use	UB2	0.876	0.732	0.882	0.788
	UB3	0.899			

Discriminant validity test is conducted by measuring the AVE root value and cross loading, where the AVE root value of each variable and loading value of each indicator must be higher than the cross-loading values. Test results in Table 5 shows that the cross-loading values are conform with the requirements (>0.70). Lowest value found in SI1 (0.611) but this result could be accepted since this result is within the acceptable range of 0.60 to 0.70 (Hair et al, 2011). Based on these results, it can be concluded that the construct has good discriminant validity.

Table 5. Cross loading values

	BI	EE	FC	HA	HM	PC	PE	PSO	SI	UB
BI1	0.812	0.433	0.566	0.574	0.585	-0.215	0.452	0.597	0.400	0.582
BI2	0.890	0.386	0.482	0.652	0.529	-0.179	0.395	0.589	0.469	0.827
BI3	0.845	0.313	0.389	0.576	0.498	-0.238	0.404	0.562	0.488	0.820
BI4	0.851	0.414	0.567	0.582	0.545	-0.168	0.468	0.600	0.507	0.756
BI5	0.798	0.488	0.580	0.535	0.600	-0.152	0.540	0.580	0.457	0.576
EE1	0.400	0.831	0.555	0.325	0.462	-0.078	0.573	0.366	0.408	0.325
EE2	0.408	0.860	0.540	0.299	0.489	-0.066	0.520	0.412	0.409	0.340
EE3	0.298	0.758	0.558	0.204	0.405	0.029	0.445	0.351	0.287	0.223

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	BI	EE	FC	HA	HM	PC	PE	PSO	SI	UB
EE4	0.436	0.813	0.566	0.362	0.554	-0.007	0.492	0.438	0.415	0.360
FC1	0.449	0.491	0.762	0.325	0.533	-0.060	0.425	0.388	0.256	0.305
FC2	0.470	0.585	0.812	0.374	0.513	-0.061	0.428	0.439	0.328	0.346
FC3	0.547	0.514	0.806	0.467	0.673	0.009	0.484	0.468	0.407	0.440
FC4	0.339	0.401	0.627	0.223	0.511	-0.020	0.351	0.326	0.323	0.256
FC5	0.489	0.578	0.798	0.350	0.552	-0.093	0.478	0.500	0.391	0.428
HA1	0.645	0.359	0.454	0.880	0.576	-0.175	0.410	0.536	0.431	0.543
HA2	0.560	0.277	0.366	0.869	0.437	-0.150	0.361	0.424	0.375	0.503
HA3	0.486	0.238	0.278	0.794	0.294	-0.172	0.338	0.351	0.395	0.452
HA4	0.633	0.360	0.449	0.820	0.532	-0.194	0.407	0.529	0.366	0.543
HM1	0.524	0.541	0.658	0.432	0.898	-0.063	0.518	0.488	0.415	0.427
HM2	0.563	0.522	0.652	0.476	0.884	-0.118	0.525	0.517	0.463	0.459
HM3	0.625	0.498	0.624	0.553	0.860	-0.048	0.515	0.532	0.429	0.491
PC1	-0.218	-0.095	-0.078	-0.241	-0.127	0.867	-0.160	-0.229	-0.182	-0.240
PC2	-0.094	0.002	-0.005	-0.076	-0.018	0.680	-0.034	-0.114	-0.099	-0.137
PC3	-0.177	0.025	-0.029	-0.111	-0.023	0.758	-0.056	-0.123	-0.116	-0.209
PE1	0.410	0.427	0.408	0.324	0.385	-0.119	0.775	0.395	0.372	0.379
PE2	0.231	0.341	0.322	0.243	0.299	-0.011	0.643	0.216	0.221	0.141
PE3	0.411	0.473	0.426	0.319	0.463	-0.103	0.796	0.390	0.375	0.314
PE4	0.509	0.611	0.551	0.455	0.593	-0.113	0.834	0.557	0.422	0.399
PSO1	0.535	0.392	0.464	0.442	0.444	-0.158	0.439	0.848	0.218	0.512
PSO2	0.496	0.460	0.464	0.441	0.517	-0.099	0.485	0.760	0.307	0.423
PSO3	0.577	0.420	0.510	0.467	0.527	-0.189	0.450	0.853	0.375	0.551
PSO4	0.678	0.352	0.438	0.488	0.462	-0.240	0.428	0.855	0.402	0.590
SI1	0.406	0.466	0.488	0.294	0.486	-0.117	0.420	0.383	0.611	0.340
SI2	0.364	0.258	0.237	0.304	0.279	-0.146	0.278	0.285	0.771	0.312
SI3	0.358	0.265	0.226	0.342	0.289	-0.093	0.299	0.231	0.784	0.301
SI4	0.521	0.414	0.386	0.448	0.425	-0.176	0.409	0.303	0.861	0.457
UB1	0.776	0.398	0.516	0.531	0.499	-0.219	0.433	0.592	0.456	0.873
UB2	0.730	0.291	0.342	0.509	0.445	-0.273	0.361	0.546	0.418	0.897
UB3	0.794	0.353	0.416	0.594	0.462	-0.220	0.354	0.557	0.402	0.915

Reliability test aims to determine the degree of accuracy and consistency of the measurement results under the constructs applied in this study. If the value of composite reliability is above 0.70 and cronbach alpha (CA) is greater than 0.60, then the construct is considered reliable. Test results in Table 6 showed that all variables used in this study have composite reliability values greater than 0.70 and CA >0.60, meaning that all indicators are measured reliable. As the measurement model results indicate that the reliability, convergent validity, and discriminant validity of the constructs are satisfactory, then it can be concluded that the constructs can be used to test the structural model.

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Table 6. Reliability test result

Variable	Cronbach's Alpha	Composite Reliability
Online purchase intentions	0.895	0.923
Effort expectancy	0.834	0.889
Facilitating conditions	0.820	0.874
Habit	0.862	0.906
Hedonic motivation	0.856	0.912
Performance expectancy	0.769	0.849
Price value	0.850	0.898
Privacy concern	0.676	0.814
Social influence	0.754	0.845
Online purchase use	0.876	0.924

4.2. Structural Model

The structural model evaluation aims to predict the relation between constructs, significance value, and goodness-of-fit (R-square) of this research model. This test is performed using the SmartPLS 3.0 software application. In this study, research model explains 68.9% ($R^2 = 0.689$) of intention to adopt social commerce to make online purchase. Hypotheses related to online purchase intentions, including H3, H4, H6, H7, H9, and H11 are confirmed, while hypotheses H1 and H2 are not confirmed. This model also explains 74.3% ($R^2 = 0.743$) of variation in online purchase use, and validates the hypothesis related to price savings and perceived benefits (H10), whilst facilitating conditions (H5) and habit (H8) are not confirmed.

Table 7. Hypotheses testing results

	Hypothesis	Original Sample	T Statistics	P Values	Remarks
H1	Performance expectancy → Online purchase intentions	0.015	0.261	0.397	Not confirmed
H2	Effort expectancy → Online purchase intentions	-0.047	0.910	0.182	Not confirmed
H3	Social influence → Online purchase intentions	0.166	3.578	0.000*	Confirmed
H4	Facilitating conditions → Online purchase intentions	0.145	2.337	0.010*	Confirmed
H5	Facilitating conditions → Online purchase use	-0.097	2.281	0.011	Not confirmed
H6	Hedonic motivation → Online purchase intentions	0.125	2.136	0.017*	Confirmed

H7	Habit → Online purchase intentions	0.313	6.126	0.000*	Confirmed
H8	Habit → Online purchase use	0.020	0.434	0.332	Not confirmed
H9	Price value → Online purchase intentions	0.306	5.915	0.000*	Confirmed
H10	Price value → Online purchase use	0.092	1.473	0.071**	Confirmed
H11	Privacy concern → Online purchase intentions	-0.048	1.251	0.106***	Confirmed
H12	Online purchase intentions → Online purchase use	0.838	13.236	0.000*	Confirmed

Note: * significance level 5%; ** significance level: 10%; *** significance level: 15%

5. DISCUSSION

Performance expectancy does not have a significant effect on the online purchase intention using social commerce. This result differ from previous empirical studies which confirming this indicator (Macedo, 2017; Morosan & Defranco, 2016). Nonetheless, these findings are consistent with past researches concluded that performance expectations do not affect consumer intentions in adopting e-commerce (Im et al., 2011; Mustaqim et al., 2018; Sheikh et al., 2017). This condition is reasonable since the default function of social media is not an online transaction platform such as marketplace websites. Many online businesses in Indonesia are adopting social commerce to promote their products and services (for example via Instagram and Facebook), but these social media networks are not designed to provide comprehensive features to make it easier for users to make online purchases. Users still have to make transfer payments using ATM, mobile banking, or Internet banking so it takes time and more effort to complete the transaction procedures. Therefore, users may assume that using social media for online purchases does not necessarily complete the process faster.

Following the fact that 129.2 million or the equivalent of 97.4 percent of Internet users in Indonesia are social media users (APJII, 2016), making this technology platform no longer a new stage for Indonesian users. The large number of access to social media indicates that this technology adoption experience has become part of the user's day-to-day activities. Therefore, in the context of

social media adoption for online purchases, they do not necessarily feel a significant change in their efforts. Based on this research, effort expectancy has no significant effect on the online purchase intention using social commerce.

Social influence is proven to have a positive influence on the online purchase intention using social commerce. Users find the perceived risk of using a technology is reduced when the community and their peers rate a technology positively. This condition encourages general positivity to increase user confidence and certainty to buy a product or service online (Vahdat et al., 2020). Furthermore, social media users also tend to rely on available information based on electronic word-of-mouth (eWOM) references from previous users. Despite there is no direct acquaintance, the minimal social psychological distance between users and the eWOM issuers, will make them sense a closer identity to these people and thereby increasing the likelihood to think of themselves as part of a common social group (Zhao et al., 2020). Given these strong effects, ignoring these social influences would underestimate the potential for shifting user preferences with respect to the use of a technology (Axsen et al., 2013).

Seeing the positive relationship between facilitating conditions and online purchase intentions, social media websites as social commerce medium need to seize opportunities and consider the inclusion of complementary features needed to facilitate online purchase intentions and anticipate problems and hesitations that may occur to users. The experience of using complementary features such as FAQs, video tutorials, telephone services, and online chat will increase user comfort and confidence and strengthen their online purchase intention.

While the intention to use social commerce has appeared in the minds of users, the availability of adequate resources and supporting facilities does not necessarily guarantee them to make transactions. The findings suggest a negative correlation between facilitating conditions and actual use of social commerce for making online purchases. This condition indicates possibility of users accessing social media merely to view item price information, product reviews, or product and price comparisons. Meanwhile, not all of the available reviews give all positive tones. Some users

can also convey their disappointment with a service or product they purchased and this will discourage other potential customers from making purchases on social commerce. It is also possible that users who have sufficient facilitating conditions are coming from the well-established and higher-income background. The descriptive analysis of the respondents' overview shows 38.9 percent of the sample had income under one million rupiah, indicating that quite a large proportion of social commerce users in this study are millennials, students, or low-income workers. Consequently, the actual purchases are still relatively low because it has not become a priority need nor is it within their purchasing power reach.

In this study, hedonic motivation suggests a positive effect on the online purchase intention using social commerce. In relation to this research context, hedonic motivation is related to the intrinsic motivation that individual users want to achieve to get satisfaction or pleasure which affects the social commerce technology acceptance and increases online purchase intentions. Business people who use social commerce must pay attention to the interactions they build through the impression of luxury on their brands. In the context of luxury, hedonic motivation is considered more influential on brand-consumer interactions and purchase intentions than utilitarian motivation (Martín-Consuegra et al., 2019). Therefore, business people must ensure that they provide adequate hedonic value to users in their social media development.

User habit indicates a positive influence toward online purchase intentions but has a negative correlation with online purchase use. Access to social media is the second habit of Internet users in Indonesia (19.1 percent) after the highest usage is to communicate via instant messages at 24.7 percent (APJII, 2019). More than just interactions between individuals, Indonesian users are also conversant with the use of social media for commercial interactions, such as searching for business advertisements or product reviews. However, the report also indicates that the Internet adoption for online shopping is insignificant, hanging at 1.7 percent compared to other activities. These conditions confirmed the findings, where the majority of Indonesian users have not used the Internet for online shopping purposes, although there is an increasing trend of e-commerce business

every year. Future intentions to use social media for online purchases are directly influenced by

previous experiences, so companies need to focus on offering benefits for their customers

(discounts, etc.) to foster purchase intentions and encourage online repeat purchases.

Price value is positively correlated to the user intention and the actual use of social

commerce to make online purchases. Free access to social media opens up ample space for users to

access various product offerings and compare prices. Customers feel the benefits and opportunities

for saving money when selecting a product by comparing prices across several social media

websites. The flexibility to choose the desired quality product but at a lower price can increase their

interests and making online purchases using social commerce.

Privacy concerns has a significant negative effect toward online purchase intention. This

result confirms the findings of previous studies suggested that privacy security considerations which

are influenced by situational emotions or individual user concerns when interacting with websites

will play a dominant role in driving their interest in making purchases (Li et al., 2011; Mamonov &

Benbunan-Fich, 2017). Users will consider the potential future losses incurred due to disclosure of

their personal information so that it affects their beliefs in safe use of social commerce technology

which affects their interest in making online purchases. However, the negative relationship between

privacy concern and online purchase intentions may not necessarily predict the actual user behavior

as higher privacy concerns often coincide with better disclosure of information that they can

obtained (known as the "privacy paradox") and social networking websites represent prime

examples of this phenomenon (Barnes, 2006; Mamonov & Benbunan-Fich, 2017). To anticipate

such anxiety, social commerce service providers can offer responsive complaint handling services

for their users. In addition, the governments need to implement relevant policy and regulation for

social commerce practice so that users will feel safer to adopt the technology.

UTAUT2 measures the effect of individual intentions toward actual use of a technology. In

the context of social commerce adoption, this construct reflects a high online purchase intention

will determine the high level of actual online purchases made with this technology. This study

proves a positive relationship between these two constructs. Most of the consumers in Indonesia who have a strong intention in making online purchases will make actual transactions. This propensity of action is driven by both of the intrinsic and extrinsic motivations as measured using various constructs in this study. Seeing opportunities in this condition, social commerce service providers need to develop their marketing strategies to increase the social media users' intention to make online purchases.

6. CONCLUSIONS

This study revisited the UTAUT2 model proposed by Venkatesh (2012) by adding a privacy concern construct that refers to prior research conducted by Morosan & Defranco (2016). The PLS-SEM is applied to analyze the following hypothesised constructs: performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, habit, price saving and perceived benefits, and privacy concern towards the online purchase intention in social commerce. In addition, this research is also to analyze the influence of facilitating conditions, habit, price saving and perceived benefits orientation, and also online purchase intention towards the actual use of social commerce to make online purchases. The findings have confirmed the hypothesis of the constructs of social influence, habit, price saving and perceived benefits, privacy concern, and facilitating conditions upon their correlations to online purchase intention. Meanwhile, the effort and performance expectations do not show a significant effect to the user intention to use social commerce for making online purchases. The actual use of social commerce technology to buy online products is significantly affected by price saving and perceived benefits orientation of social commerce users. However, the users' habit and facilitating conditions do not have significant influence toward the actual use of technology.

The limitation of this study lies in the possibility of response bias arising from the diversity of respondents' profiles with different sample sizes, which makes their answers unable to represent the overall response of particular group profile or to produce the same conclusion for all groups. Future research should consider limiting the sample to a more focused group of respondents, for

instance on the group of employees with higher income, taking into account the potential of individuals within this group are active users of social commerce. Further studies can also develop this model by considering other potential constructs that have not been applied in this study, such as trust and innovativeness.

This study provides scientific insights to perceive great opportunities to increase the potential use of social commerce technology, especially for the digital business market in Indonesia. Social commerce service providers need to pay attention to the various key factors that influence the behavior of social media users in Indonesia, and use them as an important basis for developing more apt strategies encourage growth in buying interest and online transactions through social commerce. The government also needs to play an active role by enacting relevant policies and regulations to encourage the development of the digital ecosystem in the country.

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