

# Analysis Factors Affecting Instagram Adoption by Online Shoppers in Bandung City

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**Abstract:** This study is motivated by data showing that the adoption of Instagram usage for online shopping is only 1.30% of total internet users who visit online shop in 2016. In this case the authors do research, what behaviors are done online shoppers in online shopping using Instagram. There are 9 (nine) exogenous variables: (1) performance expectancy, (2) effort expectancy, (3) social influence, (4) facilitating conditions, (5) hedonic motivation, (6) price value, (7) 8) content, and (9) trust and there are 1 (one) endogenous variable that is Behavioral Intention. The author decided to choose the city of Bandung as a research location because the city of Bandung is declared as the city that most residents are ready to enter the era of online shopping. This research uses UTAUT2 research model. The sample taken is 400 respondents; the value is calculated using Slovin formula which is considered to represent the population. The analytical method used is Structural Equation Model (SEM), using SmartPLS 2.0 software. The results of statistical calculations show that the overall exogenous variables affect endogenous variables by 57%, while in exogenous variables that most affect the Behavioral Intention is Habit variable of 30%.

**Keywords:** Online shop, Behavioral Intention, UTAUT2

## 1. Introduction

The object of this research is Instagram which is a social media application to share photos and video. Instagram began operations in 2010; Instagram currently has 430 million globally active users achieved just nine months after breaking through 300 million users. Of the last 100 million users who joined Instagram, more than half lived in Asia and Europe. Indonesia is a country that contributes to the largest number of Instagram users, in addition to Japan and Brazil.

Based on data from Brand Development Instagram Asia Pacific as of March 2015, in Indonesia Instagram active users per month doubled from year to year. Indonesia became one of the countries with the largest number of users and 89% of Instagram service users are from the age of 18-34 years who access Instagram at least once a week. The development of innovation on Instagram is directly proportional to the increasing number of Instagram users every year. Instagram is basically a social media used to share photos and videos only but in the picture menunjukkan that Instagram users increased rapidly when Instagram launched Business Tools in 2016, it can be assumed that Instagram is a new tool to market online-based products. The development of digital technology is the pulse of world economic growth. According to Accenture's report Agility to Fuel Growth and Competitiveness, corporate executives in ASEAN countries agree that digitalization is a key driver of growth (Liliyah, A. 2016). In a survey involving more than 3,000 executives worldwide, Accenture noted that 33% of the global economy has been exposed to digital. In addition, 86% of survey respondents anticipate that 86% of technology changes will take place quickly in the next three years.

In the report We are Social found that the growth of active Internet users in Indonesia grew by 21% since March 2015 (Sumara, 2016). Smartphones are the most widely used device to access the internet. In general the use of the internet can be used for various things. Internet use is mostly dominated for social media activities. In this case, social networking activities can be categorized into the use of social media. Based on the results of analysis that has been done by GMI Blogger (2016), mentioned that overall there are five social media most used in Indonesia. Users of five social media, then we can know that Facebook occupies the first position based on the number of users that is as much as 1.60 billion, then the second position is Instagram with total users of 430 million, Twitter in the third position with a total of 325 million users, Tumblr in the fourth position with a total user of 230 million, and on the order of the fifth with a total of 110 million users. The large number of social media users in line with the data released by APJII on January 27, 2017 and also mentioned that based on the social media content that is often visited the first order is facebook that is equal to 71.60 million or 54%, the second sequence of Internet users visit the Instagram that is equal to 19, 90 million or 15%. According to Mulyadi (2017: 18) mentioned that social media today is no longer a place to connect. Many things can be done through social media, such as a playground for products, brands, and news. A survey conducted by Deloitte Media in 2016 mentions that 51% of respondents agree that companies using social media, the brand is better known. Online shop activities are an important part of economic growth in Indonesia. Official news statistics No. 45/05 / Th.XX., May 05, 2017 mentions that Indonesia's economic growth in the first quarter of 2017 amounted to 5.05% due to the growth of trade through information and communication technology.

The Central Bureau of Statistics (2017) mentioned that the business field through information and communication technology increased by 9.10%. This is directly proportional to a data released by APJII on January 27, 2017, that the behavior of internet users in Indonesia based on frequently visited commercial content of 82.20 million or 62% of internet users visit the online shop.

Of the total population of Indonesia, the APJII survey shows that the largest Internet users in Indonesia first spread in Java is 86.30 million people or 65%, the second is on the island of Sumatra which amounted to 20.70 million or 15.70% , The third is on the island of Sulawesi which is 8.40 million or 6.30%, the fourth is in the area of Bali and Nusa is 6.10 million or 4.70%, the fifth is on the island of Borneo that is equal to 7.60 million or 5.80%, and lastly the smallest internet users in the region of Maluku and Papua is 3.30 million or 2.50% of the total population of Indonesia. The phenomenon that occurs is the largest spread of Internet users on the island of Java, according to DPP Chairman of APJII this is because the Internet network infrastructure on the island of Java is already available well by the Internet Service Provider (ISP). City of the most ready consumers enter the era of online shopping is the city of Bandung with a percentage of 90.40%. Bandung is the capital of West Java which is one of the potential cities as a trend setter in the production and shopping of products. Customer readiness in the city of Bandung in the online shopping is directly proportional to the program built by the Government of Bandung. Vice Mayor of Bandung said that has been running e-commerce programs in the form of food products for the people of Bandung, from the program is expected to Bandung people can take advantage of technology tools for online shopping in the current era of digitalization.

The use of the Internet is very useful for online shoppers on Instagram in improving the ease and satisfaction in online-based shopping. Plus the condition of online shoppers in Indonesia is very prospective with an average growth of 17% per year since 2013 until 2016. However, in Indonesia the adoption rate of Instagram use as an online shopping place among the community is still very low that is only about 1.30% of Total Internet users who visited online shop in 2016.

Research questions:

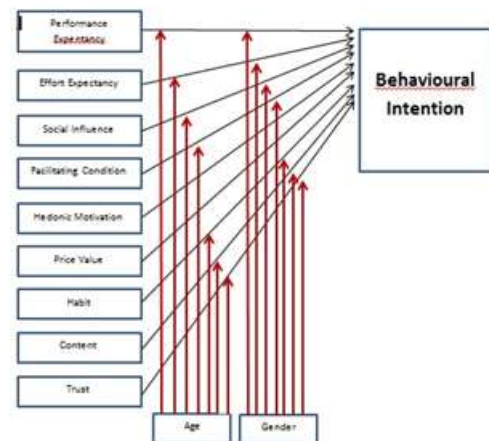
1. How is the perception of online shoppers in Instagram related to factors in UTAUT2?
2. What factors in UTAUT2 affect Behavior Intention online shoppers in Instagram?
3. Will the UTAUT2 model in this study be used to predict Behavior Intention online shoppers in using Instagram?

## 2. Framework of Thinking

The study of technology acceptance is a common medium for determining approval and predicting the future of the use of technology in the field of information systems. Various studies on technology acceptance have been done in the field of education but still have barriers in the use of computers for education (Imtiaz and Maarop, 2014: 1).

Modified UTAUT is a theory about technology adoption behavior developed by Indrawati (2012) in research on 3G Multimedia service adoption in Indonesia. The UTAUT model is modified by Indrawati by adding Affordability of Price, Affordability of Service and Content variables. This research is conducted in the context of the consumer so as to include the cost that must be borne by the user, so too Content is included as the variable because it is considered significant influential (Rahardjo, 2006; in Indrawati, 2015).

Research model that will be used in this research become as follows:



## 3. Research Methods

Data analysis method in this research consists of descriptive analysis and using SmartPLS 2.0 Software. Descriptive analysis is data analysis by converting raw data into a form that is more easily understood and interpreted (Zikmund, 2009: 486). In this study, descriptive statistics using frequency distribution tables and linear continuum analysis were conducted to explain the characteristics of respondents and describe research variables related to the use of Instagram on Online Shoppers in Bandung. To test the influence of performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit, content, trust, toward behavioral intention in this research, Structural Equation Modeling (SEM) analysis was used. According to Fornell and Bookstein 1982 in Ghazali (2015: 19), there are two widely known types of SEM types: covariance-based structural equation modeling (CB-SEM) and partial least square path modeling (PLS-SEM) Variance or component-based structural equation modeling. The analytical method used in this research is using PLS-SEM type with two evaluation step that is evaluation of measurement model or outer model to assess the validity and reliability of the model through the validity of convergent and discriminant, and evaluation of structural model or inner model which aim to predict the relationship between latent variables.

The results of statistical tests will be explained by the author associated with the data processing of the spread of

questionnaires that have been done. There are two analysis of data processing that has been writer do is as follows:

1. Evaluation of measurement model (outer model) and testing of structural model (inner model)
2. Analyze the observed variable to answer the hypothesis through model testing in the SEM method.

The whole analysis is done with the author of software SmartPLS 2.0). Before doing further analysis, for testing the measurement model then tested the validity and reliability of the variables used in this study.

#### 4. Validity and Reliability Results

The results of the research model calculations prepared using SmartPLS 2.0 software are as follows:

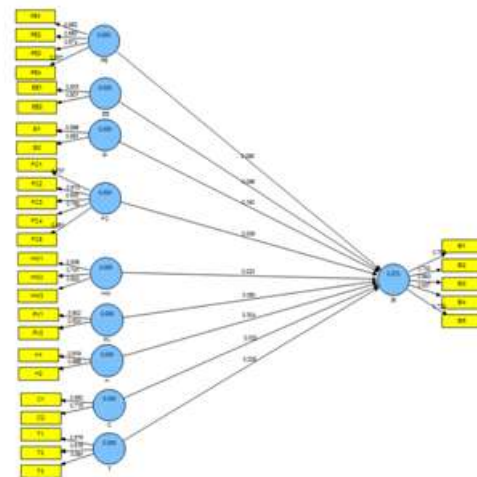


Figure Results Calculation PLS Algorithm

Variable	Indicator	Loading Factor	Average Variance Extracted (AVE)	Composite Reliability
PE	PE1	0,68	0,51	0,81
	PE2	0,65		
	PE3	0,67		
	PE4	0,84		
EE	EE1	0,83	0,67	0,80
	EE2	0,80		
SI	SI1	0,89	0,79	0,89
	SI2	0,89		
FC	FC1	0,74	0,50	0,80
	FC2	0,51		
	FC3	0,63		
	FC4	0,76		
	FC5	0,68		
HM	HM1	0,84	0,64	0,84
	HM2	0,74		
	HM3	0,82		
PV	PV1	0,90	0,75	0,85
	PV2	0,82		
H	H1	0,91	0,83	0,90
	H2	0,89		
C	C1	0,88	0,64	0,79
	C2	0,72		
T	T1	0,88	0,74	0,89
	T2	0,82		
	T3	0,89		
BI	BI1	0,75	0,60	0,88
	BI2	0,70		
	BI3	0,86		
	BI4	0,84		
	BI5	0,73		

Based on the results of evaluation value indicator reliability of all items in the model contained in Table can be seen that all items declared valid because it has a value factor loading more than 0.4. The valid parameters contained in the loading factor are in accordance with the criteria written by Hair et al. (2013). Then the next can be considered in the Average Variance Extracted (AVE) column, based on observations on the Average Variance Extracted (AVE) value it can be concluded that all items have good convergent validity, the value is assessed from AVE > 0,5 score.

The AVE score criterion has been in accordance with the criteria written by Hair et al. (2013).

Furthermore, by observing the composite reliability value, it can be observed that based on the composite reliability value can be seen that all items used reliable because the value of composite reliability > 0,7. The criteria have been in accordance with criteria written by Hair et al, Kaplan and Saccuzzo Nunnally & Bernstein, Pedhazur and Pedhazur, in Indrawati, (2015). So that seen from the three criteria are the loading factor, Average Variance Extracted (AVE) and composite reliability can be concluded that the items in this research model is appropriately used to measure the variables that exist in the research model.

## 5. Structural Test Results

In this sub-chapter will show the results of structural model evaluation of the SEM analysis of path coefficients of each relationship between variables.

The path coefficients are listed in the following table:

Path	Koefisien	t-tabel (10%)	Kesimpulan
PE -> BI	0,088	1,28	Significant
EE -> BI	0,096	1,28	Significant
SI -> BI	0,160	1,28	Significant
FC -> BI	0,009	1,28	Not Significant
HM -> BI	0,023	1,28	Not Significant
PV -> BI	0,060	1,28	Significant
H -> BI	0,304	1,28	Significant
C -> BI	0,032	1,28	Significant
T -> BI	0,208	1,28	Significant

Based on the table can be seen that from 9 (Nine) exogenous variables are Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Condition (FC), Hedonic Motivation (HM), Price Value (PV) Habit (H), Content (C), and Trust (T) have 7(seven) variables that have significant effect on endogenous variables Behavioral Intention (BI) variable. Furthermore, observation from table 4:13 can be seen also that there are 2 (two) exogenous variables that have an effect but not significant to endogen variable that is Behavioral Intention (BI) that is Facilitating Condition (FC) and Hedonic Motivation (HM). So from 9 (Nine) exogenous variables can be concluded that all variables affect the endogenous variables.

## 6. Discussions

### 1. Discussion of Validity and Reliability Model Reliability

Based on the results of evaluation value indicator reliability of all items in the model contained in the Table can be seen that all items declared valid because it has a value factor loading more than 0.4. The valid parameters contained in the loading factor are in accordance with the criteria written by Hair et al. (2013). Then the next can be considered in the Average Variance Extracted (AVE) column, based on observations on the Average Variance Extracted (AVE) value, it can be concluded that all items have good convergent validity, the value is assessed from AVE > 0,5 score. The AVE score criterion has been in accordance with the criteria written by Hair et al. (2013). Furthermore, by observing the composite reliability column, it can be observed that based on the composite

reliability value can be seen that all items used reliable because the value of composite reliability > 07. The criteria have been in accordance with criteria written by Hair et al, Kaplan and Saccuzzo Nunnally & Bernstein, Pedhazur and Pedhazur, in Indrawati, (2015). So that seen from the three criteria are the loading factor, Average Variance Extracted (AVE) and composite reliability can be concluded that the items in this research model is appropriately used to measure the variables that exist in the research model.

### 2) Discussion of Structural Model Evaluation

From 9 (Nine) exogenous variables are Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Condition (FC), Hedonic Motivation (HM), Price Value (PV), Habit (H), Content (C), and Trust (T) there are 7 (seven) variables that have significant effect on endogenous variables are Behavioral Intention (BI) variable. Furthermore, observation from table 4:13 can be seen also that there are 2 (two) exogenous variables that have an effect but not significant to endogen variable that is Behavioral Intention (BI) that is Facilitating Condition (FC) and Hedonic Motivation (HM). So from 9 (Nine) exogenous variables can be concluded that all variables affect the endogenous variables. To answer the question Research number two can be concluded from the validity and reliability test of the measurement model and the result of structural model evaluation, the value that emerged after the calculation using SmartPLS 2.0 no negative result, which means research model, can be used to predict Behavioral Intention by online shoppers In using Instagram.

## 7. Conclusions

Based on the results of research entitled "Analysis of Factors Affecting Instagram Adoption by Online Shoppers in Bandung" then it can be concluded things as follows:

1. Online shopping made by Online Shoppers in Bandung is influenced significantly by Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Price Value (PV), Habit (H), Trust (T) and content (C). Can be interpreted that the behavior of Online Shoppers in Bandung when going to buy products online will be significantly affected by the level of confidence to Instagram, the level of ease in using Instagram, the influence of others for online shopping using Instagram, costs incurred, Shopping using Instagram, as well as the level of trust in the online shop at Instagram.
2. Online shopping made by Online Shoppers in Bandung is not significantly influenced by Facilitating Condition (FC) and Hedonic Motivation (HM). Can be interpreted that the behavior of Online Shoppers in Bandung when will buy products online is not significant will be influenced by the perception of support resources in online shopping using Instagram example: Device and internet access used to operate Instagram, the level of enjoyment gained when going shopping Online using Instagram as well as information obtained from Instagram.
3. In addition to the behavior that emerged from Online

Shoppers in the city of Bandung when going shopping online using Instagram, another thing that can be concluded is the gender that often do online shopping are women with age ranges from 21 years to 30 years.

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