

# Analysis of Student Behavior on using Online Store in Medan, Indonesia

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**Abstract:** The rationale of this research is to form consumer behavior model in purchasing in online shop or store among student in Medan Indonesia. This research conducted is to understand consumers' intention to using online applications; it also explores the intervening effect of intention on Consumer behavior. The purpose of this study is to build an online purchase model for university students in Medan. The subject of his study is student of Faculty of Social Science and Politics (FISIP), Muhammadiyah University of North Sumatra (UMSU) who uses online application to buy in online store. This study was conducted using a sample of 216 respondents that uses online applications to buy products. Students will change from conventional stores to online stores if the online store application is useful and easy to use.

## 1 INTRODUCTION

In recent years retailing industry in Indonesia has grow very rapidly and have pushed expansion into new channels of shops base on internet in an effort to to create new customers and more consumers embrace the internet it seems a natural expectation and assumption that this channel will be the next market to come. Technological advancement for information flows make communication technology more widely used. Technology continues to grow so rapidly that distance and time seem to no longer be obstacles in communicating.

One of the things that are currently a trend is internet and electronic based activities. This electronic-based activity is certainly very helpful for human activities. The dimensions of space and time are no longer a problem. In addition, the data processing process is faster and more efficient. The availability of various electronic items ranging from cell phones, pagers, tablets and laptops have becoming cheap accusable to the public.

The facilities obtained by students, especially in passing internet access, have shown remarkable progress. Every campus has access to wifi and a wired network and almost every student now has a

mobile device or other gadget. Besides that cellular prices or other electronic goods are not as expensive as they used to be. This encourages students to have these tools, both for communication and buying products online.

Based on data from the Ministry of Communication and Information of the Republic of Indonesia (<https://kominfo.go.id/>), internet growth in Indonesia is increasingly experiencing rapid growth. In 2017, it was noted that internet penetration in Indonesia reached 112,000,000 million active users out of the total population of 262,000,000. (<https://bps.go.id/>).

With the continuous increase in the number of people towards the internet, the increase in the number of consumers who will shop online will occur. This also means that online transaction business activities will shift traditional markets. The growth of the internet is driven by the better use of its facilities, access costs are getting cheaper and the most important thing is the increasing amount of information and entertainment.

## 2 THEORETICAL FRAMEWORK

According to Kotler and Keller (2012) purchasing decisions are influenced by basic psychology which plays an important role in understanding how consumers make their purchasing decisions. Every person who wants to make a purchase will usually first choose what is good and according to their wishes before deciding what they will buy. They will choose according to the character and inner satisfaction that will be obtained later. With the increasing popularity of the internet and e-commerce, the problem of buying internet users has become one of the most popular studies in the field of consumer behavior. (Wang, 2018).

In other words, consumer behavior involves the thoughts and feelings they experience and the actions they take. Consumers need careful thinking in making purchasing decisions by comparing products that suit the needs and desires of these consumers. In addition, consumers take purchasing decisions based on the nature that is in them, one of them is a feeling of wanting to be appreciated, respected, and to meet their needs and desires.

The Technology Acceptance Model (TAM) is one of the models built to analyze and understand the factors that influence the acceptance of the use of computer technology which was first introduced by Fred Davis in 1986 (Brown, Venkatesh dan Goyal, 2011). TAM is a derivative of the Theory of Reasoned Action (TRA), which is more formerly developed by Fishbein and Ajzen in 1980.

With the increasing popularity of the internet and e-commerce, the problem of buying internet users has become one of the most popular studies in the field of consumer behavior (Bertrand, Manon dan Bouchard Stéphane, 2008). With the understanding of relevant mechanisms in contributing in view the influencing factors to influence consumers. Research based on the Technology Acceptance Model (TAM) and Information Adoption Model (IAM) is representative, valuable and practical.

Bashir's (2012) study shows that online shopping is increasingly popular among young people because they feel more comfortable, save time and are comfortable, when consumers make the mind to buy electronic goods online which are influenced by several factors. The main important factors identified are time savings, best prices and ease of use. Yu, Liu, and Yao, (2003) modified the technology acceptance model to include wireless systems under study by adding trust in wireless system.

In developing countries like Indonesia, confidence in the information system network is still very low. Users are still afraid to use the system because they are often disconnected suddenly and the wifi network is still s low. This event can harm users of online purchases and discourage buyers from shopping online. Amoroso and Hunsinger (2009) provides extensions to the original TAM by including constructs such as trust and privacy.

Now the price of gadgets is very cheap. This low price encourages people to buy the product (Di Muro, and Murray, 2012). At present almost every student has a cell phone for their needs. With the cheapness of these phones, students can do any activities including buying products online. The easy and inexpensive way to get a gadget makes a number of Muhammadiyah University of North Sumatra (UMSU) students use smart phones. With the emergence of online stores in Indonesia, most students are interested in making online transactions to meet their needs.

### Hypothesis

With a background of the problems that have been described, the research conducted has some formulation of the problem:

1. Price of smart phone affect perceived usefulness among students.
2. Perceived usefulness affect the intention to buy online among students of.
3. Intention to buy online affects the actual buy online among students.

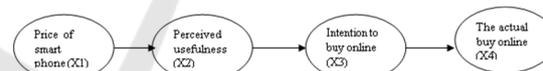


Figure 1: Research Model

## 3 METHODS

Population is an area that consists of subjects who have certain qualities and characteristics set by researchers to be studied and then drawn conclusions (Sugiyono, 2010). The population in this study was 526 students of Faculty of Social Sciences UMSU in Medan city as many as 526 people. Sampling in this study with probability sampling technique is random sampling using the Slovin sampling method with the total number of respondents in this study were 216 students.

The scale of consumer behavior used in this study uses a scale of changes in consumer behavior

based on the scale of Schiffman and Kanuk (2010). The things that were done in this study i.e : conduct an initial interview with several students about things or problems that need to be raised for research, collect information including those in the form of data and theories that explain the sundries in the issues raised. The review of the information then produced a number of descriptions of the problems related to the development of the study and prepares a variable measurement scale.

Data analysis is done using path analysis. Path analysis or path analysis is used to analyze patterns of relationships between variables (Sani & Maharani, 2013). This model aims to determine the direct and indirect effects of a set of (exogenous) variables on variables (endogenous). This analysis is assisted with the help of LISREL 8.5 software.

Model fit test is to test the degree of fit between the data model, validity and reliability, the measurement model and the significance of the structural model. Match test and value limit that shows a good fit level for each Goodness Of Fit (GOF) can be summarized as follows::

1. p-value :  $p\text{-value} \geq 0.05$  consider good fit
2. IFI : Incremental Fit Index .  $IFI \geq 0.90$  is good fit,
3. AGFI : Adjusted Goodness of Fit Index,  $AGFI \geq 0.90$  is good fit,
4. Std.Root Mean Square Residual (Str. RMR): Average residuals between matrices (correlation and covariance) observed and estimation results. Standardized RMR  $\leq 0.05$  is good fit.
5. Root Mean Square Error of Approximation (RMSEA): the average difference in degrees of freedom expected to occur in a population and not in a sample.  $RMSEA \leq 0.08$  is good fit, while  $RMSEA < 0.05$  is close fit.
6. Comparative Fit Index (CFI): values range from 0-1, with a higher value is better.  $CFI \geq 0.90$  is good fit, while  $0.80 < CFI$
7. Goodness of Fit Index (GFI): values ranging from 0-1, with a higher value is better.  $GFI > 0.90$  is good fit, while  $0.80 < CFI$

Furthermore, to see the level of consistency or stability of a measuring instrument or construct. The concept of reliability is in line with construct or qualitative validity. Valid constructs are certainly reliable, whereas reliable constructs are not necessarily valid. And measuring devices are called reliable when the instrument in measuring a symptom at different times always shows the same results.

Validity is the main criterion for scientific research. Validity indicates whether the research results can be accepted with certain criteria. Questionnaire item validity is used to measure accuracy and accuracy in an item in measuring what is measured. Valid items are indicated by the correlation between items against total item scores. To determine the feasibility of an item is to test the significance of correlation coefficient at a significance level of 0.05 which means that an item is considered valid if it has a significant correlation to the total item score.

#### 4 RESULT AND DISCUSSION

This research was conducted on students of the Faculty of Social Sciences and Politics (FISIP) Muhammadiyah University of North Sumatra (UMSU) class of 2017, located at Jalan Kapten Muchtar Basri No.3, Medan, Indonesia. The number of samples comprise of 216 respondents. The samples consist of 55% women and 45% men. Respondents aged varied from 20-30 years old and almost all of them do not have jobs and have fixed income.

##### Reliability Test

Measuring the reliability is through the test model fit. This evaluation is carried out on each measurement construct or model (the relationship between a latent variable and several variables observed separately through evaluation of validity.

Tabel 1: Standard Loading Faktor (SLF) of Variables

Construct	Value t	Conclusion
X11	9.91	Accepted
X12	6.51	Accepted
X13	7.38	Accepted
X21	4.87	Accepted
X22	5.60	Accepted
X31	8.87	Accepted
X32	10.90	Accepted
X41	5.99	Accepted
X42	8.04	Accepted

The results of measurement and evaluation of reliability of the variables showing variables have accepted conclusions. Thus variables can be used in research here.

**Validity**

Evaluation of the validity of the measurement model shows a standard factor load (Standard Loading Factor, SLF). The measurement model has Accepted validity because the Standard Loading Factor is  $SLF > 0.5$  (Igbaria,, Guimaraes, and Davis, , 1995).

Tabel 2: Variance Extracted, Reliability Model Stability Alienation

Variables	Variance Extracted	Validity
Price of smart phone (X1)	0.64	Accepted
Perceived Usefulness (X2)	0.57	Accepted
Intention to buy online (X3)	0.53	Accepted
The actual buy online (X4)	0.58	Accepted

**Analisis Data**

Structural Equation Modeling (SEM) is used as a confirmation technique for a model, the model must be determined correctly based on the type of analysis that is examined in the end the researcher attempts to confirm the model. To build the correct model using two kinds of variables, namely exogenous and endogenous variables. Exogenous variables can be used in a graphical version of the model as the sending variable of the arrow, which indicates as a predicting variable a variable that is an endogenous variable. Endogenous variables are recipients of arrows in the model.

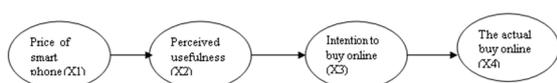


Figure 2: Standard Solution Data Analysis

After the standard solution measurement model, the next step is to analyze the structural model of the research model, this analysis relates to the testing of research hypotheses. The research hypothesis is accepted if the absolute number t value greater than 1.96 with the coefficient sign is in accordance with the proposed research hypothesis.

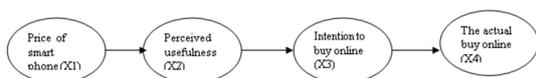


Figure 3: t-Value

Table 3: Test Results for the Significance of Structural Model Research

Hypothesis.	Influence Between Latent Variables	t-Value	Conclusion of Significance Test Results
Hypothesis 1	Influence Price of smart phone (X2) toward Perceived usefulness (X1)	5.15	H <sub>0</sub> Rejected
Hypothesis 2	Influence Perceived ease of use (X2) toward Intention to switch (X3)	3.30	H <sub>0</sub> Rejected
Hypothesis 3	Influence Intention to switch (X3) terhadap Actual system use (X4)	4.42	H <sub>0</sub> Rejected

The compatibility model is compiled by the models and the alternative models, where these alignment measurements compare the models made by researchers to be matched with other models. For this reason, we can see the Structural Model of Goodness of Fit Index (GOFI) as follows:

Tabel 4: Goodness Of Fit Index (GOFI)

GOFI	t-Value	Standard Value for Good Fit	Conclusion
p-value	0.00123	p-value $\geq 0.05$	Good Fit
RMSEA	0.072	RMSEA $\leq 0.08$	Good Fit
AGFI	0.91	AGFI $\geq 0.90$	Good Fit
CFI	0.92	CFI $\geq 0.90$	Good Fit
IFI	0.93	IFI $\geq 0.90$	Good Fit
RFI	0.80	RFI $\geq 0.90$	Bad fit
Std. RMR	0.064	Std. RMR $\leq 0.05$	Bad fit
GFI	0.95	GFI $\geq 0.90$	Good Fit

From the Goodness Of Fit Index (GOFI) table above, the structural model shows that the model is considered good because there is only two indicator of Goodness Of Fit Index (GOFI), namely RFI and

Std. RMR which are not good fit while p-value, RMSEA, AGFI, CFI, IFI, RFI, and GFI shows the good conclusion of the Goodness Of Fit Index (GOFI).

At present, online store such as tokopedia, grab, gojek, bukalapak, traveloka etc. is indeed a trend among young people. The increase the number of online stores, make it easier for consumers to choose the preferred product. But all that will not be realized if the student does not have the required equipment. The prices of affordable gadgets are important in realizing online purchases. The students in this study did not have permanent employment or had not worked so that they still relied on remittances from parents. Likewise the purchase of gadgets is also still very dependent on parents as well.

According to students in this study, it has been a long time to have a smart phone, but the use of smart phones is limited to communication needs and using social media such as Instagram, Facebook and Instagram. After many online shops appear, then they try to buy products online. First time ordering online, they order food using go jek, and then start to go to other online stores like tokopedia, bukalapak, lazada and others.

Consumer ability to buy smart phone is one of factor going online shopping. The usefulness of online store applications is a very important thing that must be considered. As the usefulness application of online store increases, and the consumers making decisions to become users of online store also increases as well. Variable buying intention online is also important in making online buying decisions. The decision to buy online must be based on strong intentions before actually buying online using an application. From the results of the study, this research model can be concluded that gadget price, perceived usefulness are the most important variable in the formation of intention to buy at online store.

By using a gadget, it has an impact on student behavior in shopping because it is useful and fast. This has an impact on shopping patterns. Although the number of online purchases is still not dominant, it is estimated that the use of online applications will continue to increase along with the increasing perceived benefits.

## 5 CONCLUSION

The conclusion in this study as follow:

1. There is a significant influence of price of smart phone on perceived usefulness in the change from a conventional store to an online store among students.
2. There is a significant influence of usefulness on Intention to switch in the change from a storefront to an online store among students.
3. There is a significant influence of Intention to switch to the Actual system use from the store

## REFERENCES

- Amoroso D., Hunsinger D.S. (2009), Understanding Consumers' Acceptance of Online Purchasing, *Journal of Information Technology Management*, 20 (1),pp. 15-41
- Bashir Adil, 2013, Consumer Behavior towards online shopping of electronics in Pakistan, Thesis MBA International Business Management
- Bertrand, Manon dan Bouchard Stéphane, (2008), Applying The Technology Acceptance Model To Vr With People Who Are Favorable To Its Use, *Journal of Cyber Therapy & Rehabilitation Summer 1*, (2)
- Brown, Venkatesh dan Goyal, 2011, Expectation Confirmation in Technology Use, *Information Systems Research, Articles in Advance*, 1 (14)
- Di Muro, F., & Murray, K. B. (2012). An Arousal Regulation Explanation of Mood Effects on Consumer Choice. *Journal Of Consumer Research*, 39(3), 574-584.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, Massachusetts: Addison Wesley Publishing Company.
- Igbaria, M., Guimaraes, T., & Davis, B. D. (1995). Testing the determinants of microcomputer usage via a structural equation model. *Journal of Management Information Systems*, 11(4), 87-114.
- Kotler, P., & Keller, K. L. (2012), "Marketing Management", Global Edition 14e, London: Pearson Education Limited 2012
- Saleem M, Khan M.M., Ahmed M.E, Shah S.E.N. and Surt S.R., (2018), Online Grocery Shopping and Consumer Perception: A Case of Karachi Market in Pakistan, *Journal of Internet and e-Business Studies*

- Schiffman, L., & Kanuk, L.L. (2010). Consumer Behavior, Global Tenth Edition. United State of America: Pearson Education, Inc
- Yu Wang , (2018) , Online Purchase Intention Based on TAM and IAM: A Literature Review, International Journal of e-Education, e-Business, e-Management and e-Learning, 8 ( 2) , pp 66-73
- Yu, J.L., Liu, C. and Yao, J.E. (2003), Technology acceptance model for wireless Internet, Internet Research, 13 (3) , pp. 206 – 223.

