

# Student Online Buying Behavior After Covid 19 In Medan, Indonesia

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## Abstract

*At the time the Covid-19 pandemic had caused many changes to consumers, this was due to the limited movement of the community to carry out purchasing activities that were usually carried out before the pandemic. This research looks at the development of consumer behavior after the end of the Covid 19 pandemic among college students in the city of Medan. The framework of this research is the application to students' perceptions of online purchases with the dependent variable: Convenience, Privacy and security, Money, Save time and effort. This study directed is to understand consumers' intention to purchase online shopping after the pandemic This study also uses three intervening variables, namely Perceived Ease of Use, Perceived Usefulness, and intention to use. This study aims to construct an online purchase model for university students in Medan. The subject of this study is a university in Medan. who uses online platforms to buy at online shops. This study was conducted with a sample of 291 respondents that uses online applications to buy products.*

**Keywords:** *Consumer behavior, Online Store, Students and Technological Acceptance Model.*

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## I. INTRODUCTION

For the past two and a half years, the world has been facing the Covid-19 pandemic where the severity of COVID-19 felt throughout the pandemic significantly surges the desire to consume post-pandemic (Deng et al., 2020). The Covid-19 virus has caused significant disruption to consumer behavior which has resulted in time-bound and space-bound consumption and time flexibility. But consumers have learned to thrive in creative and innovative ways on their own. Restrictions imposed by the government in work life by working at home, studying at home, and relaxing at home because consumers cannot go to the market. This has a very serious impact, especially in the sectors of economic growth, health, and all social life (Kumar et al., 2020). The Covid-19 pandemic situation forces all societies to change the way to live, and socialize, or the new normal and one of the changing habits is the increasing trend of online shopping (Pham et al., 2020; Valaskova et al., 2021). However, due to regulations limiting activities outside the home or working from home at the start of the pandemic, consumer behavior toward online shopping has increased much more than before (Ali, 2020). Before the pandemic. students are more likely to obtain services (financial services, concert tickets) than to purchase tangible merchandise (Lester et al., 2006). COVID-19 has caused significant changes in the eating habits and buying behavior of students, particularly students who pay more attention to cleanliness when buying food, and have increased their consumption compared to before (Yilmaz et al., 2020). The shift in purchases during Covid 19 was an increase in the possibility of buying real products and an increase in preference in buying fresh products over processed or semi-finished products (Orindaru et al., 2021). Studies after Covid, students in Turkey prefer to buy in larger quantities and don't go to supermarkets as often and students also try to reduce the time spent in supermarkets even though there is no restriction on shopping at the market (Güngördü, 2022). According to Chelvarayan et al (2021),

there are four variables that support online purchases for convenience students. ease of use, privacy, and security, and saves money, time, and effort.

There are several reasons that make consumers prefer to shop online. The Covid-19 pandemic situation has also contributed to the shift in shopping patterns from having to come to the market to going online (Sheth, 2020). During the pandemic, almost all students had communication facilities with internet access and have shown remarkable progress in using gadgets. Almost everyone has internet access, both with WIFI and cellular, and almost every student now has a mobile device or another gadget (Effendi et al., 2022). In addition, cellular or other electronic goods are not as expensive as they used to be. This encourages students to have these tools for communication and purchasing products online. With the continued increase in the number of people on the internet, there will automatically be an increase in the number of consumers who will shop online (Monsuwé et al., 2004). This also means that online transaction business activities will shift traditional markets. Internet growth is driven by the use of better facilities, lower access costs, and most importantly, the increasing amount of information and entertainment (DiMaggio et al., 2001).

Purchasing decisions are influenced by basic psychology which plays an important role in understanding making purchasing decisions (Bagozzi et al., 2016). People who want to make purchases will generally select what is good and what they want before determining what to purchase. With the growing popularity of the internet and e-commerce, the buying problem of internet users has become one of the most popular studies in the field of consumer behavior (Wang & Somogyi, 2018). Consumer behavior involves the thoughts and feelings, experience, and the actions they take. Consumers make purchasing decisions based on their nature, one of which is the feeling of wanting to be appreciated, respected, and to fulfill their needs and desires. Consumers think carefully in making purchasing decisions by comparing products that suit the needs and desires of these consumers before making the final selection of product and decision (Singh & Sailo, 2013).

In the midst of today's competitive global business environment, companies tend to respond with e-commerce strategies with the popularity of the internet and e-commerce where purchases and internet users are the company's targets (Rosário & Raimundo, 2021). With the development of the use of technology, the use of the Technology Acceptance Model (TAM) theory becomes very relevant in understanding the factors that influence the acceptance of the use of information technology (Thongpapanl et al., 2018).

## II. LITERATURE REVIEW

In the technological development of understanding human behavior in utilizing web-based information technology by conducting a study of the adoption of internet technology as a means of making online payments, three theories can be collaborated, namely Innovation and Diffusion Theory (IDT), Technology Acceptance Model (TAM), and Theory of Innovation Adoption. (TIA). In applying this theory, researchers generally collaborate this theory with other theories and or add other relevant factors/variables/dimensions. This provides an opportunity to explore the interrelationships of other factors with this theory in providing a better explanation of human behavior.

This research adopts the Technology Acceptance Model (TAM) theory by focusing on modeling gadget users and how they can accept and adopt changing conditions after the end of the pandemic. The Technology Acceptance Model is used to predict student adaptation to changing conditions. From this model can determine user acceptance of a computer information system. There are two determining variables namely perceived usefulness and perceived ease of use of the system and the main part of this model is to emphasize the potential users of the system. Conversely, the system will not be accepted by the user unless the developer shares the benefits and advantages of the technological system (Davis, 1985).

Consumers buying online are experiencing exponential growth and there is still a huge market potential for e-commerce. Convenience of online shopping emerges among consumers, especially Gen Y, and it can be illustrated that subjective norms and perceived usefulness significantly positively influence online purchase intentions but subjective norms do not significantly affect shopping behavior negatively

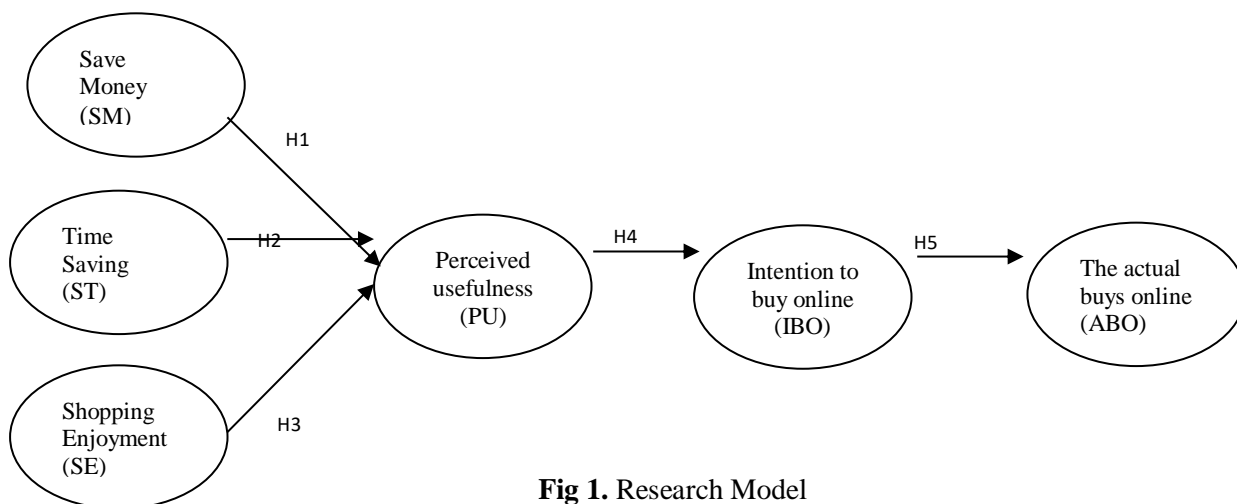
(Lim et al., 2016). Users' online shopping behavior before, during and after the Covid-19 pandemic shows that online and in-store shopping will be balanced after the pandemic and will follow normal trends as before the pandemic (Adibfar et al., 2022).

Online shopping is increasingly popular among college students because it feels more convenient, saves time and is convenient, and when consumers decide to buy goods with the support of shopping enjoyment factors, brand awareness, price awareness, shopping trust, convenience/time awareness, shopping tendencies at home, and brand loyalty with an emphasis on time savings, best prices and ease of use. (Seock & Bailey, 2008).

### Hypothesis

With the background of the problems that have been described, the research conducted has several problem formulations:

1. There is an effect of saving money on perceived usefulness
2. There is an effect of time saving on perceived usefulness
3. There is an effect of shopping enjoyment on perceived usefulness
4. There is an influence of perceived usefulness on Intention to buy online
5. There is an influence of intention to buy online on the actual buys online



**Fig 1.** Research Model

### III. METODE PENELITIAN

The population taken in this study was 207 students from the Faculty of Economics at Mahkota Tricom Unggul University and 156 students from the Faculty of Business Economics Battuta University. Sampling in this study using probability sampling technique by distributing questionnaires as many as 463 students and the number of students who filled out the questionnaire as many as 170 students.

Data analysis was performed by using Structural Equation Modeling (SEM). SEM is used to analyze patterns of relationships between variables and to determine the direct and indirect effects of a set of (Wijanto, 2008). The model fit test is to test the degree of compatibility between the data model, measurement model and the significance of the structural model as well as validity and reliability. The fit test shows a good level of eligibility for each Goodness of Fit (GOF) which can be summarized as follows:

1. Incremental Fit Index (IFI)  $\geq 0.90$
2. Adjusted Goodness of Fit Index (AGFI)  $\geq 0.90$
3. p-value  $\geq 0.05$
4. Root Mean Square Error of Approximation (RMSEA)  $\leq 0.08$  is good fit,
5. Comparative Fit Index (CFI)  $\geq 0.90$
6. Goodness of Fit Index (GFI)  $\geq 0.90$
7. Incremental Fit Index (IFI)  $\geq 0.90$

8. Non-Normed Fit Index (NNFI)  $\geq 0.90$
9. and Normal Fit Index (NFI)  $\geq 0.90$

Furthermore, the concept of reliability must be in line with the qualitative construct of validity where a valid construct must be reliable, while a reliable construct must be valid and a measuring instrument is called reliable if the measuring instrument measure indicators that shows the same results. To determine the feasibility of indicators is to test the correlation coefficient at a significance level of 0.05, which means that an indicator is said to be valid if it has a significant correlation with the total indicator score.

#### IV. RESULT AND DISCUSSION

The number of samples consisted of 170 respondents from two tertiary institutions consisting of 54% women and 46% men with the age of the respondents varying between 18-23 years and 92% of the respondents did not have a permanent job or had a steady income that still depended on their parents.

Reliability measurement is carried out through model fit tests and this evaluation is carried out in each model measuring the relationship between latent variables and variables that are observed separately. The results of the measurement and evaluation of the reliability of the variables show that the variables have accepted the conclusion that the variables can be used in research here.

Tabel 1 *Standar Loading Factor (SLF)*

Construct	Value t	Conclusion
SM1	9.92	Accepted.
SM2	7.32	Accepted.
SM3	9.95	Accepted.
SM4	10.21	Accepted.
ST1	8.12	Accepted.
ST2	11.90	Accepted.
ST3	8.52	Accepted.
ST4	10.05	Accepted.
SE1	9.35	Accepted
SE2	13.90	Accepted
SE3	10.86	Accepted
PU1	15.68	Accepted
PU2	11.04	Accepted
PU3	11.14	Accepted
IBO1	8.74	Accepted
IBO2	12.23	Accepted
IBO3	11.39	Accepted
ABO1	9.75	Accepted
ABO2	8.04	Accepted.

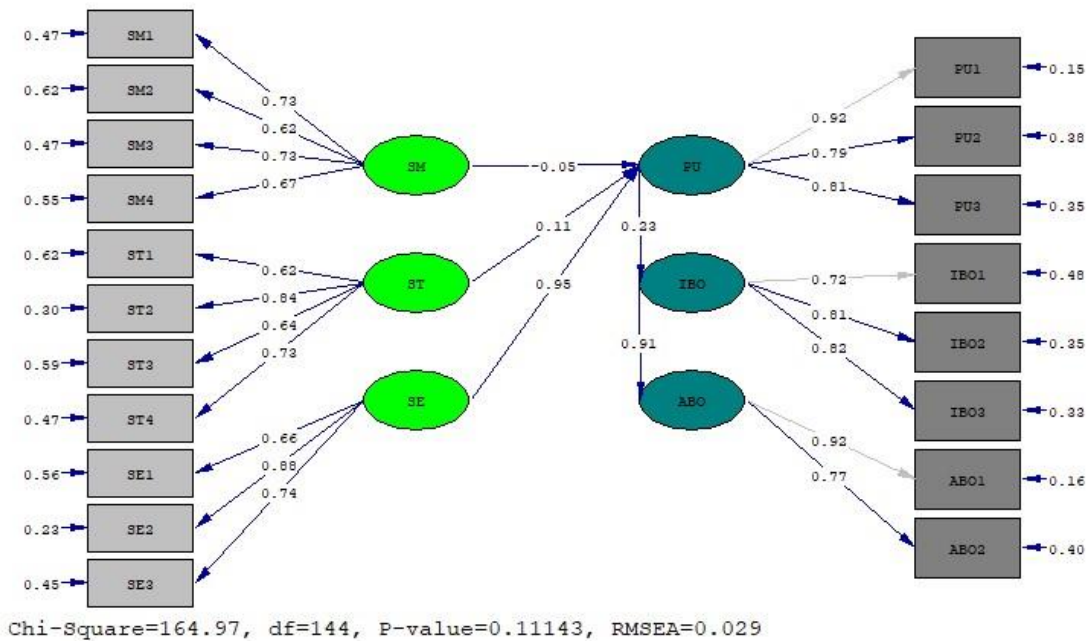
Evaluation of the validity of the measurement model shows that the standard loading factor (SLF) is acceptable because the measurement model has acceptable validity with a Standard Loading Factor (SLF)  $> 0.5$  (Igarria et al., 1995)

Table 2. *Reliability Model Stability Alienation*

Variables	Variance Extracted	Validity
Save Money (SM)	0.63	Accepted.
Save Time (ST)	0.70	Accepted.
Shopping Enjoyment (SE)	0.72	Accepted.
Perceived Usefulness (PU)	0.81	Accepted.

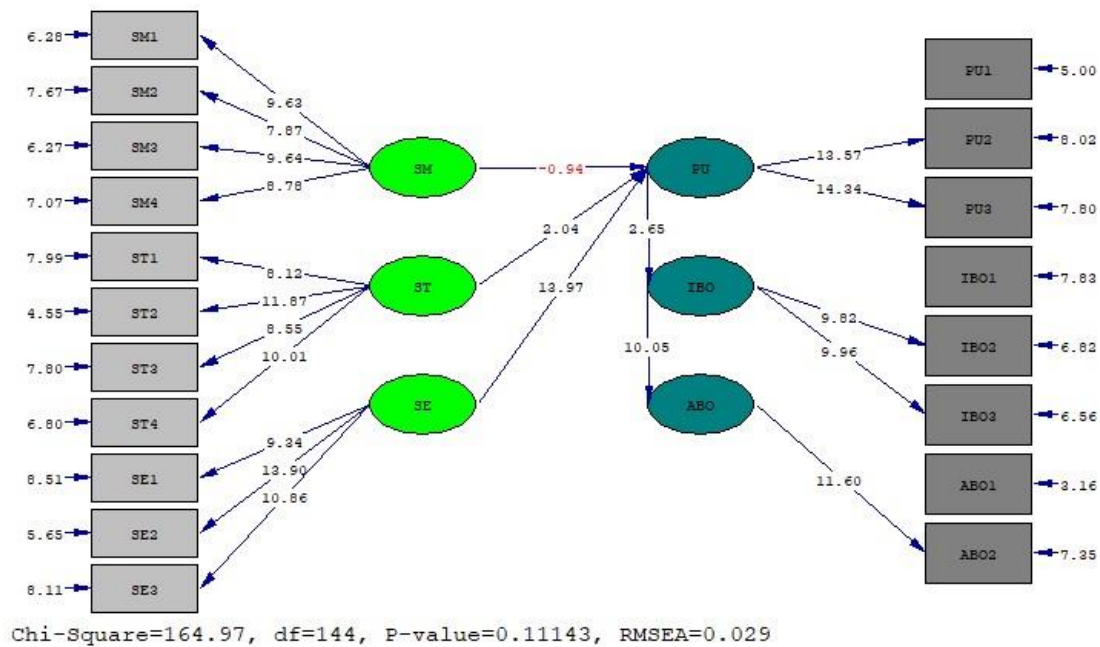
Intention to buy online (IBO)	0.73	Accepted.
The actual buy online (ABO)	0.78	Accepted.

SEM is a statistical technique used to build and test statistical models which are usually in the form of causal models. SEM is actually a hybrid technique that includes confirmatory aspects of factor analysis, path analysis and regression which can be considered as a special case in SEM which is used to build correct models using exogenous and endogenous variables. SEM can be used as another alternative that is more powerful than using multiple regression path analysis, factor analysis, time series analysis, and covariance analysis.



**Fig 2.** Standard Solution from Lisrel

After the measurement model meets the requirements, the next step is to analyze the structural model of the research model related to testing the research hypothesis that has been built. To answer the research hypothesis, the absolute value of t must be greater than 1.96 if the hypothesis results are significant.



**Fig 3.** t-Value from Lisrel

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

Hypothesis.	t-Value	The Results Of The Significance Test
Hypothesis 1 There is an effect of saving money on perceived usefulness	-0.94	H <sub>0</sub> Accepted.
Hypothesis 2 There is an effect of time saving on perceived usefulness	2.04	H <sub>0</sub> Rejected.
Hypothesis 3 There is an effect of shopping enjoyment on perceived usefulness	13.97	H <sub>0</sub> Rejected.
Hypothesis 4 There is an influence of perceived usefulness on Intention to buy online	2.65	H <sub>0</sub> Rejected.
Hypothesis 5 There is an influence of intention to buy online on the actual buys online	10.05	H <sub>0</sub> Rejected.

SEM is not only able to assess each of them simultaneously in a separate analysis but can also combine multi-items in the analysis to calculate the measurement error of each scale and the compatibility model compiled by the model. The Structural Model of Goodness of Fit Index (GFI) as follows:

Table 4 *Goodness Of Fit Index (GOFI)*

GOFI	t-Value	Standard Value for Good Fit	Konklusi
p-value	0.11143	p-value ≥ 0.05	Good Fit.
RMSEA	0.029	RMSEA ≤ 0.08	Good Fit.
AGFI	0.88	AGFI ≥ 0.90	Good Fit.
CFI	0.98	CFI ≥ 0.90	Good Fit.
IFI	0.98	IFI ≥ 0.90	Good Fit.
NFI	0.90	RFI ≥ 0.90	Good Fit.
NNFI	0.97	NNFI ≥ 0.97	Good Fit.
GFI	0.91	GFI ≥ 0.90	Good Fit.

Goodness of Fit Index (GOFI), namely GFI and Std. RMR, p-value, RMSEA, NNFI, CFI, IFI, RFI, and AGFI from the research structural model show that the model shows all indicators are considered good.

**V. DISCUSSION**

Discussions about offline and online stores are currently quite interesting for buyers. With changes in technology, changes in people's consumption patterns have made the existence of offline and online stores often discussed. With the development of digital technology that is increasingly developing, consumers choose to shop at online stores because they are considered more practical, but there are still many people who shop in person. Offline and online shopping does not describe something good and always gives something bad where both have business advantages and disadvantages that make consumers have to choose where to shop.

It has been more than 2 years since the world has faced the Covid-19 pandemic, including Indonesia, which has been struggling with the pandemic. This condition has an extraordinarily serious impact, especially in the economic and health sectors, which makes it difficult for people to live. This pandemic is forcing the world community to change their lifestyle or what is more familiar as the new normal. Habits that have changed are the increasing trend of online shopping among the public, where before the pandemic, online shopping was nothing new. However, the rules that limited people's activities at the start of the pandemic made consumers to shop online much higher than before.

In online shopping, perceived trust has a more significant effect than perceived price on purchase intentions from online stores (Kim et al., 2012). In the results of this study, price is not related to perceived usefulness because students consider online shopping not to automatically save money, especially for shopping for tangible goods. Because most students don't consume much online, the role of price does not directly affect the benefits of the goods they buy. Apart from that, students besides surfing the internet are also actively looking for goods in cheaper shops because they still have free time outside of studying.

Shopping online can save money, especially if consumers are wise by combining with offers, tax fees, and product delivery. College students who are active consumers are still not able to incorporate economical ways to shop online. Students as the millennial generation do have technological abilities, but the ability to shop online is something different and not much different from shopping in person, so the possibility of making savings becomes constrained. Besides that, with all the convenience of online shopping, consumers buy more products even though they don't need these products.

One of the main advantages of online shopping is saving time because online stores currently have a price comparison feature, or searching for the item you want with certain criteria such as price, location or certain specifications. In addition, for items that sell well, you can see various reviews from other buyers and other stores to make sure you choose the right item or not. It's different from conventional stores where you can access online stores with just a gadget or computer and just click, so you can save on your trip to conventional stores.

## **VI. CONCLUSION AND RECOMMENDATION**

### **Conclusion**

One of the main advantages of online shopping is saving time because online stores currently have a price comparison feature, or searching for the item you want with certain criteria such as price, location or certain specifications. In addition, for items that sell well, you can see various reviews from other buyers and other stores to make sure you choose the right item or not. It's different from conventional stores where you can access online stores with just a gadget or computer and just click, so you can save on your trip to conventional stores.

Consumers in online shopping is a consumer perception that believes from consumers that online shopping activities will be carried out pleasantly and take a relatively short time. Consumers feel something fun in looking for the product they want by surfing the internet by looking for new things about the product they are looking for. In addition, consumers also find many items that they have been looking for that cannot be found in conventional stores. Even though there are limitations in buying the desired product, students feel there is a special pleasure in searching for products.

From the model described above, it shows that students making online purchases are influenced by two variables, namely save time and shopping enjoyment in forming intentions and continuing with online purchases and has nothing to do with saving money even though students have limited money for shopping.

### Recommendation

In theory, this research can strengthen theories about consumer behavior, especially about student behavior in meeting their needs online. This research can be further developed using socio-economic variables that are associated with students' ability to buy products online. The trust variable can be one of the variables that can strengthen the development of consumer theory, where especially in Indonesia the problem of trust in online purchases is still one of the obstacles in online purchases, especially with regard to services offered online and very often consumers are still disappointed with purchases. on line. It is also necessary to develop research with newer theories to strengthen online purchasing studies, especially external variables that have not been examined in this research. In addition, it is necessary to develop research involving professionals who have been buying online since the COVID-19 pandemic and how it affects their daily needs.

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