The Impact of Technological Advances and the Pandemic on Changes in Consumer Consumption Behavior in Modern Retail in Indonesia

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Article Info	ABSTRACT	
Article history:	In recent years, consumer behavior in Indonesia has experienced	
Received Jan, 2025 Revised Jan, 2025 Accepted Jan, 2025	significant transformations, driven primarily by technological advancements and the global pandemic. These shifts have profoundly impacted business strategies and operational models across various industries in Indonesia. Retailers are forced to adapt to digital trends	
	by leveraging technology to enhance customer experiences and	
Keywords:	optimize their online presence. This study employs a quantitative	
Customer Behavior	approach to examine these dynamics. The findings reveal that	

Global Pandemic Technological Advances

tical ndly ious nds and tive that technological advancements and the pandemic significantly influence consumer behavior, particularly due to the rapid growth of modern retail markets and the increasing availability of shopping venues. While online shopping has become more prevalent, this does not necessarily indicate a rise in overall consumerism. Consumption patterns remain shaped by various factors, including the economic climate, essential needs, and heightened awareness of financial management.

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1. INTRODUCTION

The Indonesian retail sector has undergone a major transformation in the modern era, influenced by various factors that people's shape consumption patterns. Changes in preferences and shopping behavior caused by technological advances and lifestyle shifts reflect the background of consumers in modern retail in Indonesia. Indonesian consumers now prefer an efficient and practical shopping experience, which can be accessed through various digital channels. This is driven by high internet penetration and the increasing adoption of smartphones, which allow consumers to shop online easily. In addition, there are changes in consumer demographics and psychographics that also influence shopping patterns. Millennials and Generation Z, who are the dominant age groups in the modern retail market, tend to look for products that not only meet practical needs but also align with social and sustainability values. They are usually more sensitive to environmental and social issues, so they tend to choose products from brands that have good social responsibility and provide a positive impact on society.

Consumer behavior in Indonesia has undergone significant changes in recent years, especially due to technological advances and the global pandemic [1]. Digital technologies,

experience more tailored to

including the internet and mobile apps, have expanded consumers' access to information and product options in ways that were previously impossible. E-commerce apps and online shopping platforms have made it easier for consumers to shop anytime, anywhere, shifting their habits from in-person shopping in brick-and-mortar stores to online shopping. Technology is also influencing the way consumers search for and select products through online reviews, algorithmic recommendations, personalized and experiences that make shopping the

individual

preferences [2]. These changes were accelerated by the COVID-19 pandemic, which required people to adapt to a new lifestyle. Online shopping became more popular due to social restrictions and health concerns. The temporary closure of physical stores and mobility restrictions increased reliance on ecommerce platforms. In addition, the pandemic triggered a shift in consumer priorities, with consumers becoming more focused on basic necessities and health and hygiene products. The emphasis on safety and hygiene also influenced how consumers choose and interact with products and services. In the context of modern retail in Indonesia, these changes in consumption behavior have had a significant impact on business strategies and operational models. Retailers must adapt to digitalization trends, such as optimizing their online presence and leveraging technology to enhance the customer experience. They also need to adapt to evolving consumer needs and expectations, including increasing transparency, security, and convenience shopping. in By understanding anticipating and these changes, retailers can better navigate the issues and capitalize on opportunities arising from changing consumer behavior in the digital era and post-pandemic.

According to studies carried out by MA Pahmi et al., (2022) with the title "Review: The Impact of ICT Disruption and The Impact of COVID-19 on Shifts in Consumer Behaviour and Digital E-Commerce in

Indonesia" found that the COVID-19 pandemic had an indirect impact on consumer purchasing habits, increasing ecommerce by 22% while slowing the expansion of contemporary trade and conventional retail by 15%. The research conducted by Aisha Putri et al., (2021) with the title "Changes in Indonesian People's Consumption Patterns During the Covid-19 Pandemic Narulita Syarweni" in this study obtained the results of changes in Indonesian people's consumption patterns during the COVID-19 pandemic. This study shows that many consumers are turning to online platforms to buy various necessities, and this shift to online sales is expected to continue after the pandemic subsides. Furthermore, research conducted byYudha et al., (2021) which has the title "Consumer Behavior of Traditional Markets and Modern Retail During the Pandemic in Garut Regency" in this study obtained results with the pandemic that occurred forcing the government to further develop technology in marketing, with the development of online markets it influences consumer behavior to become more consumptive, this is because the transactions carried out are easier and the goods needed are always available in online markets than traditional markets.

Looking at the background that has been explained previously, it can be seen that the great influence of technological advances and the pandemic has on changes in consumer consumption behavior in modern retail in Indonesia, so researchers want to study in more depth the "Changes in Customer Behavior Due to Technological Advances and the Pandemic on Changes in Consumer Consumption Behavior in Modern Retail in Indonesia".

2. LITERATURE REVIEW

2.1 Changes in Consumer Behavior

a. Understanding changes in consumer behavior

Michael, (2020) Changes in consumer preferences, habits, and decision-making processes caused by changes in the social, economic, and technological environment are known as changes in consumer behavior. In this context, consumer behavior changes to adapt to dynamic market conditions and evolving technologies.

Changes in the way customers choose, purchase, and use goods or services are referred to as changes in consumer behavior. These changes are caused by a variety of internal and external factors. These factors can include technological advances, economic changes, social changes, and global crises such as pandemics. These changes often reflect consumers' adaptation to new conditions and affect consumption patterns and marketing strategies implemented by companies.

b. Factors that change consumer behavior

Quoted from Kumar & Gupta, (2022) There are several factors that influence changes in consumer behavior:

- 1. Technology advances
- 2. Social and Cultural Change
- 3. Pandemic and Global Crisis
- 4. Economy and Financial Conditions
- 5. Social Media Influence and Influencers.

These factors often interact with each other and can change over time, influencing consumer behavior in complex and dynamic ways.

c. Indicators of changes in consumer behavior

Changes in consumer behavior have several indicators. The following are several indicators of changes in consumer behavior quoted from Gracenco, (2020):

1. Changes in Online Purchasing and Ecommerce: Increased online purchasing of goods and services.

- 2. Technology Adoption and Digitalization: Increasing use of digital apps and platforms for shopping, working and entertainment.
- 3. Sustainability Awareness and Preference: Increasing consumer interest in environmentally friendly and sustainable products.
- 4. Changes in Consumption and Spending Priorities: Shifting spending patterns from luxury goods to daily necessities, especially in times of economic uncertainty.
- 2.2 Technology Advances
 - a. Understanding technological progress

Technological progress refers to the process by which technology continues to develop and improve, creating new, more efficient and effective tools, systems, and methods. It includes innovations in hardware, software, and technical processes that drive developments in variety of areas, including а industry, communications, and everyday life [9].

Technological progress is the evolution or improvement in the tools and techniques used to solve problems and increase efficiency in various aspects of life and industry. It involves the application of scientific discoveries in everyday practice and industry. In addition, technological progress refers to improvements in technical capabilities that enable the creation of innovative solutions to existing problems, through the improvement of existing tools, devices, and systems or the development of new technologies.

b. Factors influencing technological progress

Quoted from Anggelina et al., (2024) In technological progress It is affected by a number of things, including:

- 1. Research and Development (R&D): Investment in research and development is crucial factor а in technological innovation. The more resources allocated to R&D, the greater the likelihood of new technologies or improvements to existing technologies.
- 2. Funding and Investment: Adequate capital for technology companies, startups, and research institutions is essential for technology development. Investment from financial governments, institutions, and private investors play a major role in advancing technology.
- 3. Government Policy and Government Regulation: policies related to technological innovation, intellectual property rights, and industry regulation can either support or hinder technological progress. Supportive policies such as tax incentives for R&D or support for STEM education can accelerate technological progress.
- 4. Collaboration and Partnerships: Collaboration between companies, universities, and research institutions can facilitate the exchange of ideas, resources, and knowledge, which can accelerate technological innovation.

- 5. Human Resources and Education: The availability of a skilled and highly workforce educated in technology, as well as an education system that supports the development of technological skills, is critical to technological progress.
- c. Indicators of Technological Progress

Quoted from Yusuf, (2019) Indicators of technological progress can be seen from several aspects, including:

- 1. New Innovation: The development of new technologies that can change the way we interact, work and live.
- 2. Increased Computing Capacity: Increased computing performance, such as processor speed, storage capacity, and energy efficiency.
- 3. Data Usage: Increasing use of data in several disciplines, including as analysis, visualization, and datadriven decision making.
- 4. Internet Connection: Increasing internet speed and availability, such as 5G and 6G technologies currently under development.

By looking at these indicators, we can see how technology continues to develop and impact various aspects of human life.

2.3 Customer Behavior

a. Understanding Customer Behavior *Customer* Behavior (Consumer Behavior) refers to how customers make decisions about purchasing and using goods or services. Many factors influence their decisions, such as psychological, social, economic, and situational factors. Quoted fromardiyansyah, M, (2023)Customer Behavior is the study of how customers interact with a product or service, including purchase decisions, usage, and repeat purchases. This behavior is impacted by elements like needs, interests, surroundings, and prior experiences with the product or service. Some key aspects of Customer Behavior:

- 1. Identification of needs. gathering, information alternative assessment, purchase choice, and postpurchase behaviour are all steps in the decision-making process. It reflects how consumers make choices regarding products or services.
- 2. Psychological Factors: Including motivation, perception, learning, and attitudes. These factors influence how consumers process information and make decisions.
- 3. Social Factors: Including the influence of family, friends, reference groups, and social status. These social factors can influence consumer preferences and behavior.
- 4. Economic Factors: Involves income, expenses, and economic conditions that influence consumer purchasing power and decisions.
- 5. Situational Factors: Includes temporary situations such as weather. time of day, location, specific and purchasing conditions. These influence can consumer decisions at any given time.

6. Changing Trends and Technology: Consumer behavior is also influenced the latest bv trends. including technological developments and changes in social media, which can change the way consumers search for and purchase products.

Consumer behavior studies are important for companies and marketers because they help them understand customer needs and preferences, and design more effective marketing strategies.

b. Factors that influence customer behavior

The elements that affect customers Behavior vary widely and can be grouped into several main categories. Quoted fromFitria & Ahmad, (2023)Following are key factors that often influence consumer behavior:

- 1. Psychological Factors
 - a. Motivation: The reasons or drives that drive consumers to satisfy their needs or wants. Maslow's theory of the hierarchy of needs is one way to understand motivation.
 - b. Perception: How consumers view and understand information about a good or service. The following factors can affect perception: advertising, branding, and previous experiences.
 - c. Learning: The process by which consumers gain knowledge and experience from their interactions with a product or service,

which then influences their decisions.

- d. Attitudes and Beliefs: Personal views and judgments that consumers have about a product or brand, which can influence purchasing decisions.
- 2. Social Factors
 - a. Family: Family members' impact on purchase decisions, such as parents, spouses, or children, who often have a significant part in purchasing.
 - b. Reference Groups: The influence of friends, colleagues, or social groups that serve as references for consumers in making purchasing decisions.
 - c. Social Status: Consumers' social position and economic class can influence the types of products they choose and how they make decisions.
- 3. Economic Factors
 - a. Income: The amount of money consumers has affected their purchasing power and the types of products they can afford.
 - b. Expenditure: Consumer spending and saving patterns that influence purchasing decisions.
 - c. Economic Conditions: Macroeconomic situations such as recession or inflation that can affect overall consumer behavior.

4. Cultural Factors

a. Culture: Cultural values, beliefs, and customs that

influence consumer preferences and behavior.

- b. Sub-Culture: Groups within a culture that have different values or customs and can influence consumer behavior.
- c. Lifestyle: Consumers' way of living as influenced by their activities, interests, and opinions.
- 5. Situational Factors
 - a. Time: The time of day, week, or season can influence purchasing decisions, such as shopping during sales or around holidays.
 - b. Place: The physical location or environment where a consumer makes a purchase, such as in a store, online, or over the phone.
 - c. Purchase Conditions: Factors such as store atmosphere, customer service, or payment method that influence the purchasing experience.
- 6. Technology Factors
 - a. Technology Adoption: How quickly and widely new technologies are adopted by consumers, such as e-commerce, mobile apps, and social media.
 - b. Digital Interactions: How consumers interact with brands through digital platforms, which can influence purchasing decisions.

c. Customer Behavior Indicators

Customer **Behavior** Indicators are measures or parameters used to assess and understand how consumers behave, make decisions, and interact with Quoted products or services. fromAndi & Rina, (2022)Here are some key indicators that are often used to analyze consumer behavior:

- 1. Purchase Frequency
- 2. Average Purchase Value (Average Transaction Value)
- 3. Customer Loyalty
- 4. Customer Retention Rate

3. RESEARCH METHODS

3.1 Types of research

This research employs а quantitative methodology, that has a causal associative form. Quantitative is a test of existing theories by measuring variables in research with numbers and analyzing data with statistical procedures, Iksan, et al (2018:110). Causality research is a causal relationship, Iksan, et al (2018:140). In order to describe the attitudes, behaviours, and features of the population using samples drawn from the population, this study used a survey research design.

3.2 Place and Time of Research

This study was carried out on Retail consumers in Indonesia. The time of implementation of this research was from July - August 2024.

3.3 Population and Sample (Sampling Technique)

According Iksan, to et al (2018:150) Population is a general area consisting of a group of people, events, or something that has certain characteristics. According to Sugiyono (2020:128) There are a number of sampling strategies that are employed to choose which sample will be used in the study. In general, there are two types of sampling techniques: probability sampling and nonprobability sampling. Probability sampling, which gives every component or member of the

population an equal chance of being chosen as a sample, is the sampling method employed in this investigation. The sampling in this study used saturated samples so that the number of samples in this study was 76 people.

3.4 Data collection technique

This study's data source is primary data. Data gathered straight from the original source is referred to as primary data or directly from the first party, Ikhsan et al (2018:191). Therefore, the data collection technique to obtain primary data from this study is by using an online questionnaire. The method by which researchers get data is field research that is reviewed directly by the community that is included in the primary data. Data obtained directly by respondents through questionnaires is aimed directly at Retail consumers in Indonesia.

3.5 Data Analysis Techniques

This study uses a quantitative analysis technique that uses a multiple linear regression analysis approach, which is assisted by using an analysis in the form of a computer program called the SPSS (Statistical Package for Social Science) program. with dependent variables, Iqbal & F (2020:106).

4. RESULTS AND DISCUSSION

4.1 Research Result

a. Normality test

The normality test aims to determine whether the data is normally distributed or not. The method used is Kolmogorov Smirnov. Data is said to be normally distributed if the significance value is > 0.05. The following are the test results:

Table 1. Normality test

Asymp. Sig. (2- tailed)	Information	
0.200	Normal	

Data source: data processed 2024

It is known from the findings of the Kolmogorov Smirnov normalcy test that the significant value obtained is 0.200, which means that all independent and dependent variables show > 0.05, so it is stated that the data is normally distributed.

b. Multicollinearity Test

The multicollinearity test determines whether two or more

independent variables have a perfect or nearly perfect linear relationship. The independent variables and the dependent variable in the regression model ought to be correlated. Multicollinearity measurement can be seen from the Variance Inflation Factor (VIF) with a tolerance value of > 0.1 and VIF < 10. The outcomes of the multicollinearity are as follows:

Table 2.	Multicollinearity	test
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Variables	Tolerance	VIF	Note
Technological progress (X1)	0.999	1.001	There is no multicollinearity
Pandemic (X2)	0.999	1.001	There is no multicollinearity
	•		•

Data source: data processed 2024

Based on the results of the multicollinearity assumption test, it can be seen that the VIF value on the variable (X1) is 1.001 with a tolerance value of 0.999 and (X2) is 1.101 with a tolerance value of 0.999. Based on the test results, it can be stated that in this study there is no multicollinearity problem because the VIF value is known to be <10 and the tolerance value is> 0.1

c. f test

The f test is conducted to determine whether the independent variable simultaneously affects the dependent variable. The simultaneous test criteria state significant if the calculated f value > f table then it is said to have a simultaneous effect, in this study it is known that the f table is 3.49. The results of the f test are as follows:

	f count	Sig.	
Regression	3.805	0.042	
Data source: data processed 2024			

It is evident from the f test results that the computed f value is 3.80 > 3.49. This indicates that Ha is accepted. So, it is concluded that (X1) and (X2) simultaneously have a significant effect on (Y). which means that the independent variables used in the regression model together or simultaneously have an effect on the dependent variable.

d. t-test

Finding out if each independent variable significantly affects the dependent variable is the goal of the t-test. Testing can be done by comparing the calculated t with the t table using a risk level or significance <0.05. If the calculated t> t table then it is said to have a partial effect, in this study it is known that the t table is 1.66.

Table 4. t-test			
Variables	t-count	Sig.	
Technological	1,868	.041	
progress (X1)	1,000	.041	
Pandemic (X2)	1,858	.007	

Data source: data processed 2024

Based on the table it can be concluded that:

a. It is evident from the table that the variable of technological progress shows a calculated t value of 1.868, this value is greater than the t table (1.66). and Sig (0.04) is smaller than (0.05). so it can be concluded that the variable of technological progress has a significant effect on changes in consumer consumption behavior.

b. It is evident from the table that the pandemic variable shows a calculated t value of 1.858, this value is greater than the t table (1.66). and Sig (0.00) is smaller than (0.05) So it can be concluded that the pandemic variable has a significant effect on changes in consumer consumption behavior.

e. Coefficient of Determination Test The purpose of the determination coefficient test is to assess how effectively a linear regression model can account for the dependent variable's (Y) using the independent variable (X). In other words, the determination coefficient provides information about how much variation in the Y value can be explained by the X variable in the regression model built.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.217a	.557	.549	1.48756

Data source: data processed 2024

From the table, the Adjusted R value is 0.54, which means that all independent variables, namely technological and progress pandemic, have simultaneous а contribution of 54.9% to the dependent variable, namely changes in consumer consumptive behavior. While the value of 45.1% is elucidated additional characteristics not bv incorporated in this study.

4.2 Discussion

a. Overview of Modern Retail in Indonesia

Indonesia's contemporary retail business is undergoing rapid transformation, reflecting changing trends around the world and adapting to local market characteristics. In big cities such as Jakarta, Surabaya, and Bandung, large malls with complete facilities such as shopping areas, restaurants, cinemas, and entertainment centers have become the center of social and economic activities. The concept of shopping center not only this provides a variety of products, but also offers a more comprehensive and enjoyable shopping experience. In addition, many malls adopt modern

and innovative designs to attract visitors and create a comfortable and attractive shopping atmosphere. On the other hand, e-commerce has become a vital component of the retail scene in Indonesia. The rapid growth of e-commerce platforms such as Tokopedia, Bukalapak, Shopee, and Lazada reflects the shift in consumer preferences towards online shopping. Consumers increasingly prefer the convenience of shopping from home with easy access to a variety of products. The increasing use of mobile devices has also strengthened this trend, encouraging retailers to develop user-friendly applications and facilitate transactions.

The omnichannel concept is also gaining popularity among modern retailers, integrating online and offline shopping experiences. This model allows consumers to make purchases online and pick up at a physical store, or vice versa. Innovation in physical stores is also seen with the use of advanced technologies such as augmented reality (AR) and the internet of things (IoT), which enhance the shopping experience in an interactive and personal way. Awareness of sustainability social and responsibility is also increasingly influencing the retail market. Consumers are now more concerned about the ecological and societal consequences of the products they buy, resulting in an increased demand for environmentally friendly and ethical products. Outside of big cities, modern retailers are also reaching out to smaller towns and rural areas, with product and service adaptations tailored to local needs. Retailers are seeking to reach a wider market by optimizing distribution strategies and product offerings that are relevant to local demographics.

Overall, modern retail in Indonesia reflects the ever-changing market dynamics with innovations focused on customer experience, technology, and social awareness. Adapting to these trends is key for retailers to stay competitive and relevant in this highly dynamic market. Here are the latest data and trends in Indonesia. Market Value: E-Indonesia commerce in is experiencing rapid growth. By 2023, the value of Indonesia's e-commerce market is estimated to reach around USD 83 billion, and is predicted to continue to grow at an annual growth rate of around 15-20% (source: Statista). According to the We Are Social and Hootsuite 2024 report, Indonesia has more than 200 million internet users, with the majority using e-commerce platforms for shopping. This data provides a clear picture of how the modern retail sector in Indonesia is evolving and adapting to global trends and local needs.

b. Changes in Customer Behavior Due to Technological Advances on Changes in Consumer Consumption Behavior in Modern Retail in Indonesia

Indonesians' consumption behavior has changed dramatically

due to technological advancements. Influencers and social media increasingly influence buyers' decisions, while e-commerce and digital payment methods have transformed the way people shop. Personalization through data analytics is becoming the new norm in the shopping experience, and there is а growing concern for sustainability among consumers. Modern retailers in Indonesia must adapt to these trends to stay relevant meet and evolving consumer expectations. This statement is in line with research conducted by [14] The rapid growth of e-commerce in Indonesia reflects a major shift in consumer behavior. According to a report from Statista, the e-commerce market in Indonesia is estimated to reach around USD 83 billion by 2023 and continues to grow. Consumers now prefer to shop online because of the convenience, speed, and accessibility offered by platforms such as Tokopedia, Shopee, and Bukalapak.

If seen from the results of the calculations that have been done previously, it can be seen that the variable of technological progress shows a calculated t value of 1.868, this value is greater than the t table (1.66). and Sig (0.04) is smaller than (0.05). so it can be concluded that the variable of technological progress has a significant effect on changes in consumer consumption behavior. Thus, the variable of technological progress has a significant effect on changes in consumer consumption behavior. This shows that innovation and technological developments can affect how consumers behave in terms of consumption. Companies and policy makers may need to consider the impact of technology in designing relevant marketing strategies or policies.

Research conducted by Euis Soliha, (2023) Obtaining the results that the rapid development of modern markets has resulted in a proliferation of retail establishments. The quantity of retail locations significantly impacts decisionmaking in identifying a suitable alternative shopping venue. Moreover, the substantial quantity and cheaper prices. With this technological advancement, it has resulted in changes in consumer behavior. This is because the choice of necessities is increasing with competitive prices and ease of making transactions. Consumers now prefer online shopping because of the convenience offered, such as shopping from home without having to go to a physical store, and 24/7 accessibility. This not only simplifies the purchasing process but also provides the opportunity to compare prices and products more efficiently.

The statement reflects significant changes in consumption behavior in Indonesia influenced by technological advances. With the rapid growth of e-commerce, the influence of social media, personalization through data analytics, and increasing awareness of sustainability, retailers must adapt quickly to meet evolving consumer expectations. Research from Statista and Euis Soliha emphasizes the importance of innovation and being responsive to new trends in maintaining competitiveness in an increasingly dynamic market.

c. Changes in Customer Behavior Due to the Pandemic on Changes in Consumer Consumption Behavior in Modern Retail in Indonesia

In Indonesia, the COVID-19 pandemic has brought about a major shift in consumption behavior, especially in terms of consumer interaction with modern stores. With social restrictions and the closure of

physical stores, consumers have shifted to online shopping as their primary alternative. E-commerce platforms such as Tokopedia, Shopee, Bukalapak have and seen а tremendous surge in demand, reflecting a drastic change in shopping preferences. Consumers now prefer the convenience and accessibility offered by online shopping, which allows them to shop from home without having to face health risks. According to research conducted byArdra Widyadhana et al., (2024)The results of the study showed that after the pandemic, students preferred to shop online, ecommerce programmes frequently utilised by students are Shopee and Tokopedia. Students enjoy internet shopping due to the more competitive prices compared to traditional retail outlets. Moreover, when purchasing online, the duration of action is reduced and more efficient. Online retailers present a vast array of products and frequently implement promotions to capture consumer interest. Students utilise online retailers to purchase fashion and skincare items due to the greater diversity of products available compared to physical stores.

Based on the results of the calculations that have been done previously, it can be seen that the pandemic variable shows a calculated t value of 1.858, this value is greater than the t table (1.66). and Sig (0.00) is smaller than (0.05) So it can be concluded that the pandemic variable has a significant effect on changes in consumer consumption behavior. Thus, the results of this analysis provide important insights into how the pandemic affects consumption behavior and provide guidance for companies in formulating relevant and effective strategies to deal with changing situations.

Research conducted byYusup et al., (2020)The results of this study indicate the Covid-19 pandemic crisis, societal limitations, digital marketing systems and simultaneously have proven to have a positive and significant effect on changes in consumer behavior in purchasing retail products with a correlation test result of 0.946 and a determination test result of 89.5%, while the remaining 10.5% are other factors that were not studied. This also has implications and is a consideration for business actors in other sectors to change their sales patterns from direct marketing systems to online marketing systems.

With the rise of online retail stores after the COVID-19 pandemic, there has been an increase in the use of e-commerce platforms and consumption in certain product categories. However, this does not directly mean that consumers in Indonesia have become more consumptive overall. The increase in online shopping reflects a change in the way consumers shop, but consumption behavior still is influenced by various factors, including the economic situation, basic needs, and awareness of financial management. Consumers may be more selective in their spending and focus on the value and convenience offered by online shopping.

5. CONCLUSION

Based on the research findings and discussions performed, it can be inferred that customer behavior is influenced by

technological advances and pandemics, this is because the growth of modern markets and the increasing number of shopping places have a major influence on consumer decisions. Technological advances make it easier for consumers to shop online, with 24/7 accessibility and the ability to compare prices efficiently. This change reflects a significant shift in consumption behavior in Indonesia, However, after the COVID-19 pandemic, the increase in the use of e-commerce platforms consumption in certain product and categories shows a significant shift in the way Indonesian consumers shop. Although online shopping has become more common, this does not mean that consumers as a whole become have more consumptive. Consumption behavior is still influenced by various factors such as the economic situation, basic needs, and awareness of financial management. Consumers are now more selective in their spending, focusing on the value and convenience offered by online shopping.

SUGGESTION

Based on the research results, Retailers should continue to invest in ecommerce technology and digital products to make the online shopping experience more enjoyable. Leveraging features such as personalization, data analytics, and efficient payment systems will increase consumer satisfaction and make it easier for them to shop. In addition, retailers can also optimize online platforms. With the increasing use of ecommerce platforms, it is important for retailers to optimize their presence on these platforms. Ensuring that their websites and mobile applications are easily accessible, responsive, and offer a variety of product choices can help attract more consumers.

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