

# Strategic Research on the Development of E-Commerce in Indonesia

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## Abstract

E-commerce are considered to play important roles in creates connection between product and consumer in business world. E-commerce expands the market scale of trading, shortens the space-time distance, simplifies its processes and procedures, and makes trading activities intelligent, globalized, paperless, and simplified, leading to increased effectiveness of trading activities. This research tried to formulate the strategic management for the application of e-commerce when they have to face the global economic challenge and to be more competitive. A case study was conducted for e-commerce in Indonesia. To accomplish that problem, it should tried to formulate the strategic management through a combination of SWOT and PEST analysis. The SWOT analysis consists of four elements, i.e., strength, weakness, opportunities, threat. On the other hand, PEST analysis has four scopes, i.e., political, economic, social, and technological. Researchers hope that the strategic management which has been formulated could be used by the e-commerce industry to help the e-commerce to handle the aforementioned problems.

## Keywords

E-commerce; Strategy, SWOT analysis, PEST analysis.

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## 1. Introduction

Along with the trend of economic globalization and global informatization, information and the Internet have become important factors in promoting national development. In the global competitive environment, the Internet has become a must-have tool, which is beneficial to many companies and businesses. Its development has an impact on changes in various fields, such as social, economic, political, and cultural, as well as an impact on lifestyle changes, including consumption patterns and ways of selling and shopping. In this era, people use information and communication technology to buy and/or sell goods and/or services via the internet. This phenomenon is known as electronic commerce or e-commerce. The e-commerce phenomenon provides people with the choice of how to shop by not having to come directly to the store and free from many restrictions of time and space.

Indonesia is a market with attractive e-commerce growth from year to year. Census data from the Indonesian Central Statistics Agency said that Indonesia's e-commerce industry in the last 10 years increased by 17 percent with a total number of e-commerce businesses reaching 26.2 million units. In 2018, e-commerce in Indonesia is recorded to have experienced very rapid growth, and is expected to continue to increase along with the growing number of entrepreneurs and entrepreneurs of Micro, Small and Medium Enterprises (MSMEs) in the country<sup>[1]</sup>. Although the development of Indonesia's e-commerce has experienced a good increase, Indonesia's technology and development of e-commerce is currently lagging behind developed countries, such as, infrastructure still needs more

improvement and its distribution is not spread well, Internet usage adoption still does not cover all of the population, slow network speed, transaction system security, network finance, tax rules, and logistics distribution systems are still poor.

In the past few decades, it has been developing towards e-commerce strategic management thinking. It is not only a function of a developing organization, but also a set of values and processes that respond to global competition. The role of e-commerce strategic is too important to be ignored because it has a crucial position in managing market position. E-commerce Strategic management is the process of evaluation, planning, and implementation designed to maintain or improve competitive advantage in case of E-commerce field. The process of evaluation is concerned with assessment of the external and internal environments. This research tried to formulate a strategic management through SWOT analysis and combine it with PEST analysis. PEST analysis is strategic planning tool to expand on the external context by looking in detail at specific types of issues that frequently have an impact on the industry, i.e., political, economic, social, and technological. In order to exhibit the applicability of the proposed methods, a case study has been conducted in e-commerce situation in Indonesia. E-commerce in Indonesia has revenue about Rp 300 billion in 2018, from 13,485 e-commerce businesses, business revenue from internet sales was 17.21 trillion Rupiah with 24.82 million online sales<sup>[2]</sup>.

## 2. Literature Review

### 2.1 Internet

The internet is a connected network throughout the world that allows users to share information interactively. The internet provides various communication services such as the world wide web, electronic mail, news, entertainment, data transfer, and others using computer facilities or other facilities such as cellular phones, digital TVs, and others.

### 2.2 Electronic Commerce

E-commerce is the sale or purchase of goods or services, which are carried out through a computer network using methods specifically designed for the purpose of receiving or placing orders. Goods or services are ordered by this method, but the main payment and delivery of goods or services does not have to be done online. E-Commerce transactions can occur between businesses, households, individuals, governments, and other private or public organizations. Including: ordering through web pages, extranets and EDI (Electronic Data Interchange), email, social media, as well as instant messaging. Excludes: bookings made by telephone, facsimile.

### 2.3 Strategy

H.I. Ansoff (1965) defines strategy as the rule for making decisions in uncertain situations, while policy is accidental. Business strategy is a collection of extensive decision-making rules and guiding principles. These rules and guidelines define the scope and growth direction of the business<sup>[3]</sup>. Alfred D. Chandler (1963) showed that the strategy is to determine the long-term goals and objectives of the enterprise, and take action guidelines and the resource allocation required to achieve these goals<sup>[4]</sup>. Quinn, Mintzberg & James (1991) believe that there is no unified strategic definition. There is no optimal strategy formulation method, nor an optimal organizational form. The world is full of contradictions, and an effective strategy is one that can coexist with contradictions, learn to understand its causes and consequences, fully reconcile them, and take effective actions<sup>[5]</sup>.

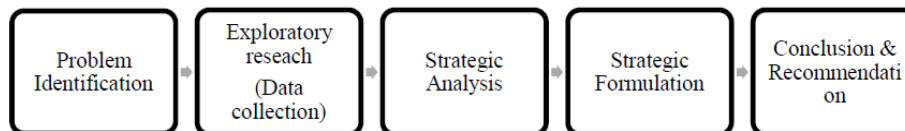
### 2.4 E-commerce Strategy

E-commerce strategy is to make long-term business goals and decision rules and take action guidelines and resource allocation required to achieve these goals in the case of e-commerce uncertain situation. This decision includes correctly planning the future development direction of e-commerce, formulating a fresh and forward-looking blueprint for the development of e-commerce, developing a series of strategies that can promote the widespread application of e-commerce and become an e-commerce guiding principles for business development.

### 3. Methodology

This article through the collection and reading of relevant materials, and analyzing the status quo of e-commerce implementation in Indonesia, points out the deficiencies in e-commerce implementation. A case study has been conducted in e-commerce situation in Indonesia, use PEST analysis tool to identify the macro environment of Indonesia E-commerce and use SWOT analysis tool to point out the strength, weaknesses, opportunities, and challenges faced by e-commerce implementation in Indonesia.

**Figure 1.** Research Design



#### 3.1 PEST analysis

PEST analysis is related to the impact of the external environment on the company. PEST is a useful method or tool for summarizing the external environment in industry or enterprise operations. When implementing PEST, it is necessary to consider how the industry or enterprise responds to the impact of the political, economic, social and technological environment<sup>[6]</sup>.

##### 3.1.1 Political and legal environment (Political Factors)

The first factor in the PEST analysis is the political factor. This factor will assess how government regulations and legal factors affect the business and trading environment. The main issues in this political factor are political stability, tax guidelines, national ideology, trade regulations, safety regulations, and labour regulations.

##### 3.1.2 Economic environment (Economic Factors)

Through the analysis of these economic factors, the company or organization will examine and review the economic issues that affect the company. This will include factors such as interest rates, inflation, economic growth, currency exchange rates, unemployment rates, and the stages of the country's economic cycle.

##### 3.1.3 Social and cultural environment (Social Cultural Factors)

PEST's analysis of social factors will analyze the market's socio-economic environment through customer demographics, social culture, attitudes and lifestyles, and educational background. Through this analysis, we can understand the formation of consumer demand and the factors that motivate consumers to purchase products.

##### 3.1.4 Technical environment (Technological Factors)

This factor analyzes and evaluates how technology has a positive or negative impact on the launch of products or services to the market. These factors include technological progress, technological life cycle, the role of the Internet, and government spending on technological research

#### 3.2 SWOT analysis

SWOT analysis is a strategic planning technique used to help individuals or organizations identify strengths, weaknesses, opportunities and threats related to business competition or project planning. It aims to specify the objectives of a commercial enterprise or project, and to identify internal and external factors that are beneficial and unfavorable for achieving these objectives. Users of SWOT analysis often ask and answer questions to generate meaningful information for each category, thereby making the tool useful and determining its competitive advantage<sup>[7]</sup>.

a) Strength: To make a business or project have advantages over other advantages.

- b) Weaknesses: the characteristics of the enterprise that put the enterprise or project at a disadvantage relative to other enterprises.
- c) Opportunities: Environmental factors that can be used by enterprises or projects.
- d) Threats: Elements in the environment that may cause trouble to business or projects.

## 4. Finding and Argument

### 4.1 PEST analysis of the e-commerce development in Indonesia

#### 4.1.1 Political Environment Analysis

The Law of the Republic of Indonesia No. 7 of 2014 regulates all forms of local or international trade procedures, information circulation systems, trade policy procedures, etc. Indonesia's trade laws and policies are relatively complete, but there are still aspects that have not been perfected, especially e-commerce laws. Indonesia's e-commerce laws and policies are still being drafted. So far e-commerce activities are regulated in Government Regulation Number 80 Year 2019 concerning Trade Through Electronic Systems. However, the Indonesian government is constantly preparing and improving its own e-commerce law. In order to maintain the competitiveness of the Indonesian economy, Indonesian government is currently giving priority to promote e-commerce implementation for production and operation activities, especially in trade activities. E-commerce simplifies trade procedures and increases the efficiency of trade activities. It means E-commerce will become the main driving force for the development of domestic and foreign trade.

#### 4.1.2 Economic environment analysis

In recent years, despite the slowdown in Indonesian economic growth, it has remained relatively stable. According to the 2018 annual report released by the Bank of Indonesia, in the context of global economic uncertainty, economic stability was controlled in the fourth quarter of 2018, and economic growth continued. The positive state of development is reflected in the increase in foreign capital inflows in the fourth quarter of 2018. According to data from the International Finance Institute, compared with other developing countries, foreign capital inflows into Indonesia are the largest. Then, this situation prompted the capital and financial transaction surplus to increase in the fourth quarter of 2018 to reach US \$ 15.7 billion, an increase from the achievements in the second and third quarters of 2018. The macroeconomic situation in Indonesia continues to improve. The inflation rate has been effectively suppressed. The inflation rate is 3.13% and is still within the target range of  $3.5 \pm 1\%$ . The gross domestic product (GDP) growth rate is 5.17%, and the credit growth rate is 11.8%. The annual import and export volume also continued to increase. Indonesia's total imports and exports in 2018 were 368.7 billion U.S. dollars, of which 188.7 billion U.S. dollars in imports and 180 billion U.S. dollars in exports, an increase of 13.17% over last year<sup>[8]</sup>. At present, Indonesia's economic development is stable, and people's lives and political and social arrangements are guaranteed.

#### 4.1.3 Social environment analysis

The Internet has made it easy for humans to obtain information from all over the world. With the trend of the digital age, Internet users in Indonesia are gradually increasing. Internet users in Indonesia are growing substantially every year. The Internet is often used to find information, communicate, find news, buy and sell transactions, and as a means of entertainment. According to the 2018 national Internet user penetration survey conducted by the Indonesian Internet Service Providers Association, the number of Internet users in Indonesia is 171.7 million, the Internet penetration rate is 64.8%, and the total population is 264.1 million. The number of Internet users increased by 10.12% compared with last year, that is, about 2.7916 million users<sup>[9]</sup>. The purpose of users using the Internet is mainly for communication, accessing social media, finding work-related information, reading news, watching movies online, buying online, etc. It can be seen that more and more people realize the advantages of e-commerce and use it.

In large cities, online shopping is growing rapidly. Since 2010, online shopping has become a new preference among consumers, especially residents of large cities. Rich and varied online products and

services: transportation, electronics, takeaway, computers, air tickets, travel, etc. Payment methods can also meet consumer demand. In addition, in recent years, the rapid growth of the number of mobile users and low Internet fees have become favourable conditions for promoting the development of e-commerce. More and more companies use e-commerce technology to increase its effectiveness and apply it to production and business activities. In order to further promote the development of e-commerce, the central government and local governments continue to establish and improve related public online services to meet the needs of various companies and individuals, such as: electronic taxation, electronic libraries, etc. But between those public online services, electronic customs do not yet exist. If it can be achieved, electronic customs will provide the effect of foreign trade enterprise activities.

#### 4.1.4 Technology environment analysis

Compared with other developed e-commerce countries, Indonesia's electronic payment infrastructure and technology are still lagging behind. As the online business model changes, online payment methods have become richer and more diverse. In recent years, many companies have changed the payment method, but the cash payment method has changed into online payment methods such as transfers and electronic wallets. The reason is that many banking infrastructure and communication technologies in Indonesia are still lagging behind, followed by many risks in online payment, and the company still has many concerns about online payment. Establishing an online credit system and improving the security of electronic payments are the main issues facing e-commerce in the country.

In the information age, Indonesian companies have the opportunity to increase and promote the use of e-commerce technology in various fields, such as logistics, information circulation, personnel management, financial management and other systems. The relevant departments and companies in Indonesia must introduce new technologies to further enhance the appearance of the domestic e-commerce market. Currently, the logistics industry in Indonesia is booming, but the infrastructure and technology are still lagging behind. If this problem can be solved immediately, it will bring many benefits to Indonesian companies. Through cooperation with foreign companies, companies can learn from the experience of companies in other countries and introduce advanced technologies to further strengthen domestic infrastructure.

## 4.2 SWOT analysis of the e-commerce development in Indonesia

### 4.2.1 Strength analysis

In recent years, more and more companies, especially trade companies, have realized the importance of implementing e-commerce in production and operation activities. Through e-commerce platforms, companies can search for information, post information, find suitable partners, and more. Trading activities mainly use email, telephone and fax to complete transactions. Applying e-commerce to trade activities can open up new markets for trade companies, save time, reduce a lot of transaction costs, and improve transaction efficiency. The company's use of e-commerce technology has increased year by year. The development of e-commerce services in Southeast Asian countries can promote the circulation of goods in the region, create jobs and stimulate the economy of each country.

Indonesia's economic growth has been the slowest in the past five years. However, with the economic slowdown, the e-commerce industry has grown even faster. The e-commerce industry is likely to become one of the pillars of the national economy. In addition, most e-commerce companies in the country are small and medium-sized. As we all know, even in times of economic crisis, SMEs are the most resilient business. Through the e-commerce industry, SME business can continue to develop and support the Indonesian economy, which is expected to become a new world economic power. It can be seen from the value of the country's online business sales increasing by 40% annually. In addition, in Indonesia, e-commerce companies also provide digital products (such as Internet fees), online payment services (such as electricity, water, health cards) that meet household needs and transportation products (such as bus tickets and air tickets) to client. E-commerce companies are scrambling to provide more types of products to their consumers.

A few years ago, under the coordination of the Ministry of Economic Affairs, the Indonesian government cooperated with the Ministry of Communications and Information and related ministries, association stakeholders and e-commerce entrepreneurs, and world-class consultants, who mobilized multidisciplinary experts commence to work. They come from the region and the world, and began to devote themselves to the development of Indonesia's e-commerce roadmap, constantly improve the relevant legal framework to promote the development of e-commerce in a good legal environment and protect the interests of businesses and consumers, and work together to prepare for the development of the local e-commerce industry A good ecosystem.

Indonesian e-commerce is entering a stage of development. The speed of informatization is fast and the population is large. Therefore, it provides such huge markets and opportunities for local and international companies. Any company can apply e-commerce to its business activities. If this potential can be fully utilized, it will definitely promote the national economy.

#### 4.2.2 Weaknesses analysis

According to the analysis that has been carried out, there are six problems, namely funding, taxation, consumer protection, communication infrastructure, logistics and education. These issues must be resolved together with the relevant agencies to formulate a comprehensive and synchronized policy. The Internet connection in all areas of Indonesia is of moderate quality and the Internet connection is unbalanced, making the experience of e-commerce inconvenient. In terms of logistics, Indonesia is a vast country, but its logistics infrastructure is not yet complete. Many remote areas that have not yet arrived. In terms of payment, the third-party payment platform is yet to be perfected. Since the infrastructure of the domestic payment platform in Indonesia is still lagging behind, some consumers still do not trust the use of electronic payment, most of the transactions are through cash payment or bank transfer, remittance, other Online payment methods are rarely used. Electronic payment methods need to be improved so that everyone can use them. In terms of infrastructure, it is not sound. In fact, Indonesia's Internet speed is actually sufficient for e-commerce activities, but it is currently unevenly distributed. Even though the products of some SMEs are of good quality, some areas are still not connected to the Internet, or the Internet is slow. In terms of education, the problem is the lack of quality of Internet education in marketing products. There is very little education about e-commerce, and it has not yet reached remote areas. In Indonesia, some consumers still do not know how to use the Internet to purchase. At this time, the process of e-commerce education is not much, and it extends to remote areas on average. This process cannot be short, and it takes a long time.

#### 4.2.3 Opportunities analysis

The great changes that took place at the end of the twentieth century were the victory of the free economic system. Globalization and information technology have expanded international relations endlessly. This reality has created three opportunities in international relations. The first is economic opportunity, that is, the state is open to investors. For owners of capital and industrial countries, this is undoubtedly a very potential market. With the development trend of globalization and informatization, the application of Indonesian e-commerce to international trade activities has also shown a good development trend. E-commerce has matured in many developed countries. Indonesian trade companies can borrow successful business strategies from these developed countries to find a business strategy that suits Indonesia's current situation.

In order to focus on developing the country's e-commerce potential, the Indonesian government recently opened up foreign investment in this area. In 2016, Indonesia passed Presidential Decree No. 44/2016, announcing the removal of the e-commerce industry from the list of prohibited industries. The list that allows foreigners to have 100% ownership of e-commerce businesses and companies has been approved by the country's Investment Coordinating Committee. Foreign companies can fully own 100% of e-commerce businesses including: booking sites for services such as hotels or restaurants; portal sites that publish articles, audio, and video using content provided or produced by users; and those that enable sellers to meet buyer market website. These policies bring many

opportunities for foreign trade enterprises, provide a good stage for the development of trade industry, and help domestic companies obtain foreign expertise in this field.

#### 4.2.4 Threat analysis

With the rapid development of the Internet world, it also needs a good security system. In this case, e-commerce is highly dependent on the Internet in all activities. Therefore, Internet system security is an important aspect of using electronic commerce in trade activities. The security of the Internet system in Indonesia is still lagging behind that of developed countries. This situation is related to the threat of hackers. If there is no strong network security, it will lead to malpractices, including fraud, transaction theft, data tampering, and system failures. These problems will cause consumers at home and abroad to lose their sense of trust and security, so they are unwilling to use e-commerce as a transaction tool. The use of e-commerce in trade involves many security aspects, such as: information security, capital security, cargo security, trade secret security and so on. If the security problem cannot be solved correctly, it will be difficult for Indonesian e-commerce to apply it to trade activities. Therefore, technically ensuring security in e-commerce systems has become a major issue in promoting the development of trade industry.

<p><b>Internal</b></p> <p><b>External</b></p>	<p><b>Strength (S)</b>                  S1. More and more trade enterprises apply e-commerce technology                  S2. High growth rate of e-commerce industry                  S3. Rich human resources and huge market</p>	<p><b>Weaknesses (W)</b>                  W1. Infrastructure needs improvement                  W2. Electronic payment platform needs improvement                  W3. Lack of social knowledge and weak skills</p>
<p><b>Opportunity (O)</b>                  1. Trend of information globalization                  2. The Indonesian government implements policies such as opening up and liberalization of investment                  3. More and more foreign companies and investors are entering the Indonesian market, entering e-commerce technology and knowledge</p>	<p><b>Strategy (SO)</b>                  1. Use the trend of global informatization to open the door of the country and bring Indonesian trade closer to the world platform.                  2. Drawing on the successful experience of developed countries, invite foreign investment in Indonesia                  3. Use foreign talents to introduce advanced technology and knowledge</p>	<p><b>Strategy (WO)</b>                  Strategy (WO)                  1. Constantly improve the infrastructure and encourage enterprises to adopt the most suitable business model; establish a good Internet link and thoroughly use all kinds of good software                  2. Improve the construction of payment platforms and push the implementation to transaction activities.                  3. Further improve the level of human resources</p>
<p><b>Threats (T)</b>                  1. Indonesia's cyber security problems are not guaranteed, and many malpractices have appeared                  2. The legislative work of Indonesian e-commerce is quite lagging behind                  3. Indonesian companies face the challenge of foreign companies entering the market</p>	<p><b>Strategy (ST)</b>                  1. The government does a good job of supervision to avoid various malpractices and improve the creditworthiness of enterprises.                  2. Speed up the improvement of legislative work; speed up the approval of laws                  3. Improve and support the competitiveness of Indonesian foreign trade companies</p>	<p><b>Strategy (WT)</b>                  1. The government provides subsidies to enterprises to improve infrastructure; improve and enhance the e-commerce knowledge of ordinary people                  2. Promote economic cooperation between Indonesian companies and other countries, especially in e-commerce field</p>

Indonesia's e-commerce law is still lagging behind. In developed countries, they have formulated relevant and relatively complete e-commerce legal frameworks. This law can become a legal umbrella for domestic and foreign e-commerce companies. Indonesia's legislative work in designing and enacting e-commerce laws is relatively slow. Although the government has recognized the importance and urgency of these laws and formulated relevant legal frameworks for e-commerce, there are still many shortcomings. Further modification. The e-commerce process is developing rapidly, but the relevant legal framework in Indonesia is still being supplemented, and in the process of revision and improvement, it is far behind the current momentum of e-commerce development.

Indonesian companies face the challenge of foreign companies entering the market. After the development of the Indonesian market, more and more foreign companies such as Alibaba, eBay, Amazon, etc. have entered the Indonesian market. The Indonesian Academy of Sciences (LIPI) said that imports through e-commerce pose a serious threat to domestic online producers and sellers. According to a survey conducted by LIPI of 1,626 online buyers and sellers in Indonesia, most of them are products imported through e-commerce platform. If this problem is not resolved seriously, it may threaten the business continuity of Indonesian online producers and sellers. Data from the General Administration of Customs of the Ministry of Finance also supports this, which records a 10.5% increase in monthly imports through e-commerce in 2018<sup>[10]</sup>. From the seller's perspective, most sellers worry that the practice of shopping directly from abroad threatens the sustainability of their businesses. In addition, Indonesia's foreign trade enterprises are backward in technology, lack of knowledge, and have a small talent team. Indonesian companies have to compete not only with domestic companies but also with foreign companies, causing significant pressure.

## 5. Conclusion

In this research using SWOT analysis and combine it with PEST analysis to formulate a e-commerce strategic. It was then applied to e-commerce businesses so that the e-commerce businesses can improve its business power and be more competitive. Monitoring and controlling of the proposed strategies have to be conducted in order to assess the effectiveness of the strategies. Based on the current application of e-commerce in Indonesia, a strategy suitable for the current domestic market situation is formulated. First, promote the development of communication technology infrastructure and lay the foundation for trade enterprises to develop e-commerce. Second, accelerate the improvement of legislative work. Third, Encourage and support enterprises to apply e-commerce to production and operation activities. Fourth, Indonesian e-commerce trade companies must cooperate with the government. Fifth, Actively develop and widely apply e-commerce technology in many businesses field. Sixth, enterprises should make their own preparations, at the same time exert their subjectivity, and bravely face the various challenges encountered in the development of e-commerce. The strategic design and measures for promoting the development of country competitiveness by e-commerce are based on the actual situation of Indonesia and the real environment of the e-commerce market. However, as the global informatization trend market continues to change, so while implementing this e-commerce strategy, we should adapt to changes in the market and pay close attention to the situation of the market and its own development, if necessary, we should make appropriate adjustments to existing strategies.

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