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## **An Analysis of e-Commerce Development in Vietnam and Policy Implications for Business after COVID-19**

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### **Abstract**

*The paper aims to clarify the development of e-commerce in Vietnam, an emerging economy in Southeast Asia. The survey data for the analysis was carried out by the Vietnam e-Commerce and Digital Economy Agency included 4466 enterprises. The study period is two years, from 2019 to 2020. Employing the thematic analysis approach, the study results reveal that e-commerce has been popularly applied in many business activities. E-commerce has helped businesses stabilize supply chains to cope with strict social distancing measures to fight the epidemic. Besides, a large number of companies confirm that e-commerce is necessary for faster business recovery in the post-COVID-19 pandemic era. The result also confirms that e-commerce continues to play an important role in helping enterprises advance to a new normal status in business in the next years. The study has some contributions when highlighting the critical role of e-commerce not only during the outbreak of the pandemic, but also regarding business recovery in the coming time.*

**Keywords:** e-commerce, business recovery, business strategy, business transformation, digitalization.

**JEL Classification:** D12, D47, F13.

### **1. Introduction**

Globalization is increasing and helps to connect countries closely in trade activities, especially through e-commerce. Industry revolution 4.0 with artificial intelligence (AI) and the Internet of Things (IoT) is creating a boom for the development of e-commerce in all countries worldwide. The recent statistics from the world's leading website for e-commerce, Statista.com, showed that as much as 4,280 billion USD in goods and services were traded globally through e-commerce in 2020. The transaction value through the form of e-commerce in 2020 also increased sharply by 27.5% compared to 2019 (Statista, 2020). In the next years, the growth momentum of global e-commerce is expected to continue to be in the

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double digits. The revenue from e-commerce has continued to increase during the COVID-19 pandemic (Kawasaki et al., 2021). This process will be propelled by the dynamic areas such as Southeast Asia which has an expanding high-income class. Then, the global growth of e-commerce will be expected to significantly change over the next few years (Statista, 2020). Because of the huge potential demands, new markets are emerging, and existing markets also have opportunities for further expansion.

Vietnam was ranked as the 25<sup>th</sup> largest market for e-commerce transactions with total revenue was 8 billion USD in 2021, an increase of 24% compared to 2020 (EcommerceDB, 2022). This country also has a dynamic business environment with potential and high benefits for investors (Tung, Binh, 2021). The outbreak of the COVID-19 pandemic is also a big boost for the promotion of e-commerce development in developing countries with fast economic growth, such as Vietnam. Although this economy suffered from the negative effects of social distancing measures to combat the epidemic (Thanh, Tung, 2022), it is a period when e-commerce has made robust strides in Vietnam. The statistic from EcommerceDB. (2022) shows that the biggest companies in the Vietnamese e-commerce market are thegioididong.com, fptshop.com.vn, shopee.vn, dienmayxanh.com, and cellphones (EcommerceDB, 2022). The expansion of e-commerce in Vietnam is predicted to continue over the next few years, as expected by the Statista Digital Market Outlook (Statista, 2020). The report indicates that the annual growth rate for the next four years can be reached at 7%. Besides, the statistics of the Vietnam e-Commerce and Digital Economy Agency (VEDEA) show that there were 41% of the population have purchased online at least one product in 2021 (VEDEA, 2021).

**Table 1. Size of the retail e-commerce market in Vietnam, 2016-2020**

<b>Statistical indicators</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Number of online customers (millions of people)	32.7	33.6	39.9	44.8	49.3
Average online purchase value per person (USD)	170	186	202	225	240
Percentage of retail e-commerce revenue to total the economy's retail (%)	3.0	3.6	4.2	4.9	5.5
Percentage of people using the Internet in total population (%)	54	58	60	66	70

*Source: VEDEA, 2021.*

In order to create a legal environment for the development of e-commerce in Vietnam, policymakers have established consistent solutions to support the sustainable development of e-commerce. These solutions have helped to maintain a rapid growth momentum of the e-commerce market during the two years of the COVID-19 pandemic. The Vietnamese companies continuously recorded a strong growth rate in both the percentage of people using the Internet as well as the number of consumers shopping online and the value of their purchases. The statistics of

VEDEA (2021) are estimated that the number of consumers shopping online in 2020 is about 49.3 million people with an average shopping value of about 240 USD per person. The percentage of Internet users participating in online shopping in 2020 in Vietnam accounted for 88%, while in 2019 it was 77%. The payment for online shopping is popular in cash, but in 2020 this kind of payment has decreased from 86% to 78% of the total payment in the market. Additionally, the report notes that the percentage of payments via e-wallets and credit, debit, and scratch cards has a positive step compared to the previous year. In addition, the online shopping value of each user in 2020 also increased higher than in 2019. During the COVID-19 pandemic, around 57% of consumers confirmed they ordered the products in e-commerce channels. As a result, e-commerce revenue in Vietnam increased sharply. In 2016, the value was only 5 billion USD, by 2019 it has doubled when reaching over 10 billion USD, and in 2020 the revenue was 11.8 billion USD (VEDEA, 2021).

This paper aims to identify the development of e-commerce in Vietnam, an Asian emerging economy (Tung, 2019), in recent years, especially in 2020 when the market faced the outbreak of the COVID-19 pandemic. The study has two contributions to the current literature. First, by using a national survey with a large number of e-commerce enterprises, the study result is helpful for exploring the perspective development of e-commerce in a highly profitable market such as Vietnam in the COVID-19 pandemic. Second, the study result suggests valuable practical implications for both managers in companies and policy-makers to enhance the efficiency of this kind of business in the future.

The structure of the paper includes five sections. Section 2 is a review of related studies. The methodology and data source are shown in Section 3. The study results of the paper are presented in Section 4. Finally, Section 5 includes a conclusion and some managerial implications.

## **2. Problem Statement**

E-commerce is a purchase activity done on the Internet (by computer, mobile, smartphone, or tablet) (Einav et al., 2014). On the other hand, e-commerce is popularly understood as a process of buying and selling tangible products and services made by online tools (Utami et al., 2021).

Gregory et al. (2019) consider the interaction between e-commerce and exporting performance. The study confirms that specialized e-commerce marketing capabilities directly increase the degree of distribution and communication efficiency of companies. Then, this variable enhances export venture market performance. Adam et al. (2020) focus on the relationship between e-commerce adoption at a global level and customer activities. The results show that national e-commerce adoption has been affected by some factors such as information technological access, political and regulatory environment, and human resource development.

Li et al. (2020) explore that mobile e-commerce retailing applications can significantly increase online purchase efficiency and support system improvement. Therefore, the applications of mobile apps in e-commerce retailing affect the online

shopping behaviour of consumers. Ocloo et al. (2020) found that some elements, such as perceived desirability, organization's readiness, and competitive pressure, had a positive effect on the e-commerce adoption levels of companies.

Kawasaki et al. (2021) investigate the impact of e-commerce on consumers' psychological intentions with comparison before and after the COVID-19 outbreak. The study result confirms that the consumers recognize e-commerce's usefulness, therefore, they consider e-commerce as an important channel for purchasing products. On the other hand, the customers' attitudes toward e-commerce have been significantly improved by the COVID-19 pandemic outbreak because they tried to avoid the virus in the context of following social distancing policies.

Orji et al. (2021) analysis of the impact of e-commerce adoption on firm performance. The study results indicate that technical elements are the highest-ranked and imply that e-commerce adoption had a strongly linked interaction with the financial and operational benefits of the companies. The study highlighted a roadmap for information technology adoption in a health pandemic to improve the competitiveness level of companies in global value chains.

Cheba et al. (2021) show that the e-commerce market has expanded quickly, especially in large cities. The study focused on the relationships between some main elements that have potential effects on sustainable e-commerce development in cities. There are several indicators included: e-commerce drivers, measurement of the e-commerce market in cities, and effect level of the development of the e-commerce market in cities on the environment.

Haji (2021) highlights the important role that e-commerce plays in international trade worldwide, especially in some emerging economies such as Brazil, Russia, India, China, and South Africa (BRICS group). The study reveals that e-commerce is an effective tool for fast, inclusive, and sustainable economic growth, as well as for increasing the living standards and reducing the poverty rate. Tolstoy et al. (2021) note that e-commerce is a huge chance for small and medium enterprises (SMEs) to expand their businesses in the global digitalization process.

In overview, based on a fast assessment of recent study results, the e-commerce development is much varied and is dependent on the social-economic characteristics of the country. Besides, the previous study results on e-commerce development are quite complex; however, the information of this new kind of transaction is quite valuable for both managers in companies and policy-makers in the public areas. Furthermore, to the best of our knowledge, there is no evidence focused only on the e-commerce development using an updated database in Vietnam, especially in the case of the outbreak of the COVID-19 pandemic. Therefore, this study tries to fill this empirical research gap in the current literature.

### **3. Research Methods**

Faced with uncertain prospects caused by the COVID-19 pandemic, different perspectives help to have a variety of flexible and good solutions. The thematic analysis approach (Braun et al., 2018) is a good approach to decomposing themes, events, and potential happenings in the Vietnamese e-commerce market and

establishing the future development paths. The comparative research method (Esser, Vliegenthart, 2017) is applied to discuss the current trends of e-commerce development in Vietnam. Descriptive statistical analysis (Mann, 2006) and graphing techniques are used to analyse the statistics of the survey done by VEDEA (2021).

The data used in this paper was sourced from the White Paper of the Vietnam e-Commerce 2020 conducted by the Vietnam e-Commerce and Digital Economy Agency (VEDEA). The survey was carried out in 2021 with the participation of 4466 enterprises in Vietnam. The study period of the survey is two years, from 2019 to 2020. The data was collected in the form of directly filling out the questionnaire. The statistics in the sample are presented in the table below.

**Table 2. Characteristics of the study sample**

Characteristic	Number	%
<b>Owner of the enterprises</b>		
State enterprise	268	6
Private enterprise	3975	89
Foreign enterprise	223	5
<b>Size of the enterprises</b>		
Small and medium enterprise (SMEs)	4019	90
Large enterprise	447	10
<b>Business sector of the enterprises</b>		
Commerce	1027	23
Service	893	20
Construction	670	15
Mining and Manufactory	357	8
Logistics	313	7
Agriculture	313	7
Tourism and Hospitality	179	4
Communication and Information	134	3
Science and Technology	89	2
Others	491	11
<b>Total number of observations</b>	<b>4466</b>	<b>100</b>

*Source:* Calculated from data of the VEDEA, 2021.

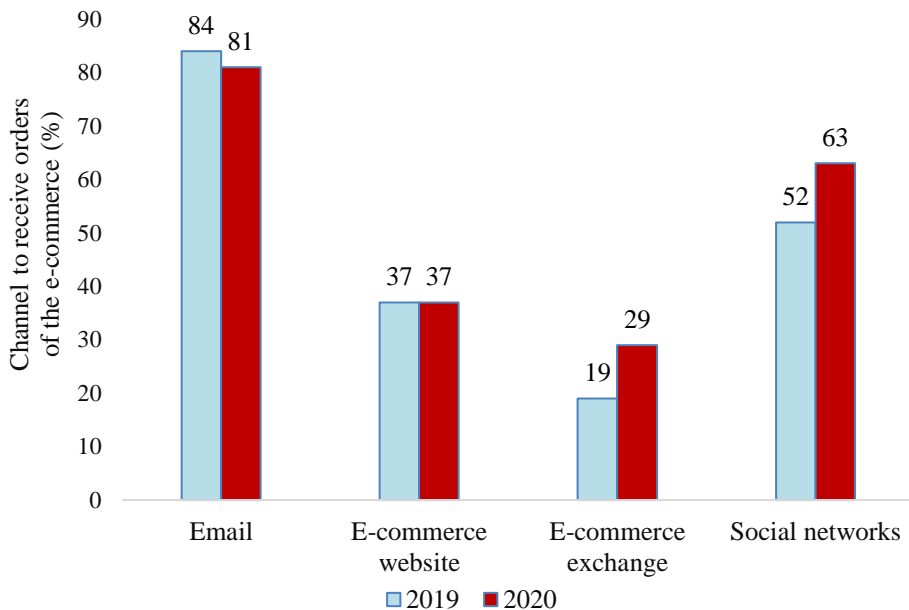
## **4. Findings**

### **4.1 Channel for Receiving Order of e-Commerce**

The survey shows that enterprises have used email as a popular communication channel of e-commerce when 84% of businesses used this tool to receive orders in

2019 but this rate has decreased to 81% in 2020 (Figure 1). Email is a useful tool in the office environment, but this tool has many limitations in supporting e-commerce activities where the high diversity of information and images is a mandatory requirement. The analysis result also revealed that businesses have employed social networks as an efficient tool to support the receipt from orders of the e-commerce channel. In detail, 52% of businesses said they used social networks in e-commerce activities in 2019, however, this number has significantly increased to 63% in 2020. Therefore, in the context of the COVID-19 pandemic outbreak, social networks have played an important role in the connectivity between enterprises and customers.

**Figure 1. Channels to receive the e-commerce order**



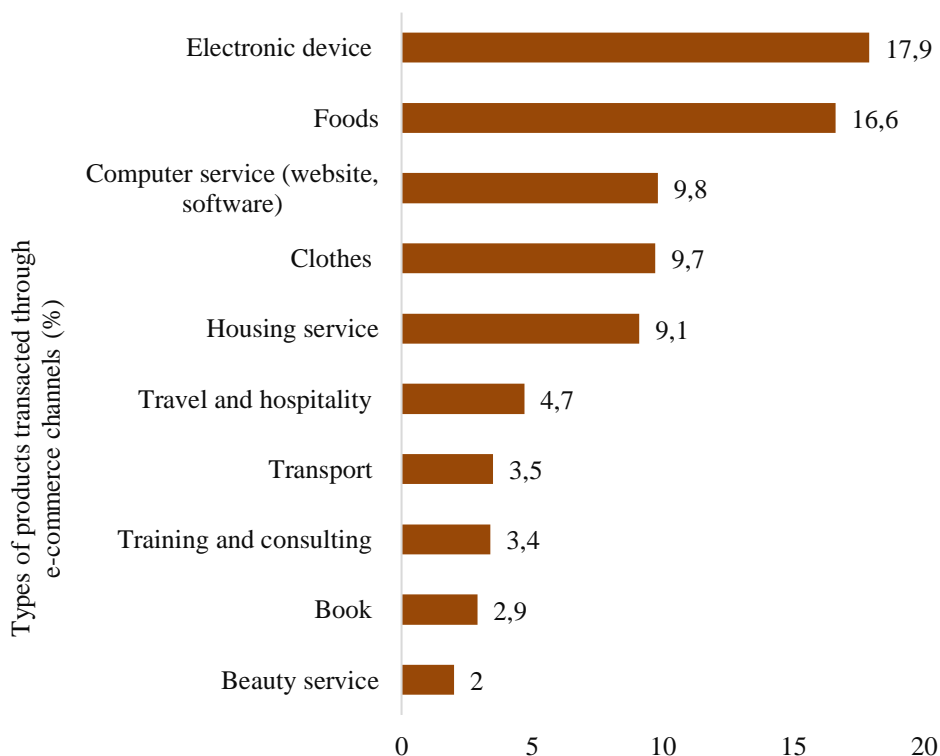
Source: Calculated from data of the VEDEA, 2021.

In addition, e-commerce websites also play a high positive role when 37% of businesses confirmed that they received orders through this channel. However, this rate has not changed in 2020. The evidence shows that customers still raise their searching and purchase behavior through business websites. Notably, there is a marked increase in the receipt of orders through e-commerce exchanges, from 19% in 2019 to 29% in 2020. Thus, centralized e-commerce channels are playing an increasingly important part in markets.

The survey also reveals that some types of products have been traded through e-commerce channels at the highest frequency (Figure 2). It is useful information for companies to prepare goods and services through e-commerce. 17.9% of businesses said that electronic devices are products supplied that they provide

to the e-commerce market. Followed by some items such as food (16.6%), computer service (9.8%), clothes (9.7%), housing service (9.1%) and travel and hospitality (4.7%). The survey indicates that companies need to step up the diversification of products to bring flexible choices to consumers by using e-commerce in the coming time.

**Figure 2. Types of products transacted through e-commerce channels**



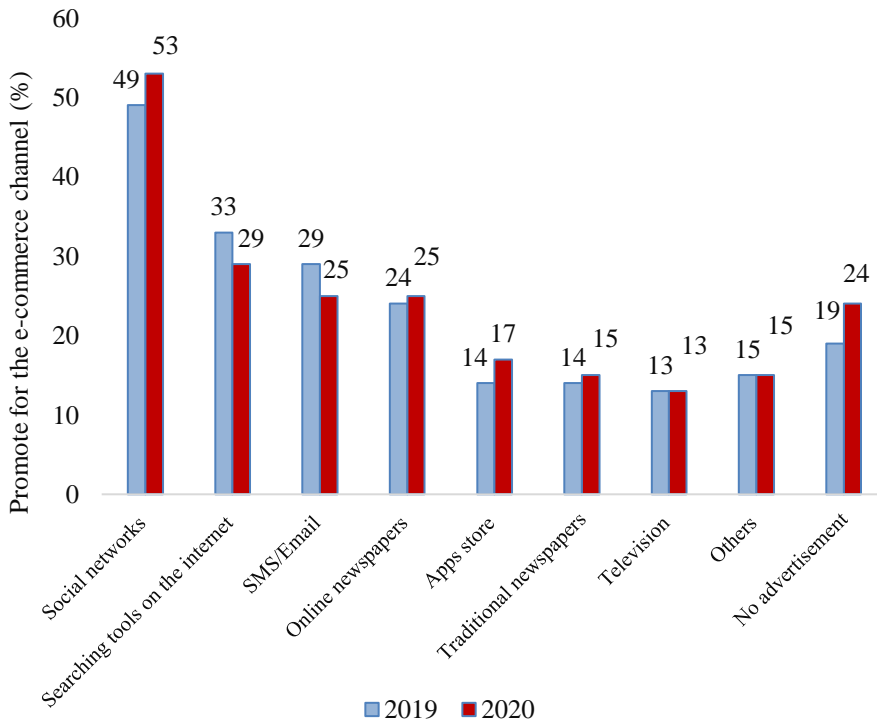
Source: Calculated from data of the VEDEA (2021)

#### **4.2 Promoting for the e-Commerce Channel at Companies**

Promotional activities for promoting e-commerce channels are very important in the context of increasing competition in the market. Advertising is often a costly activity in the e-commerce field.

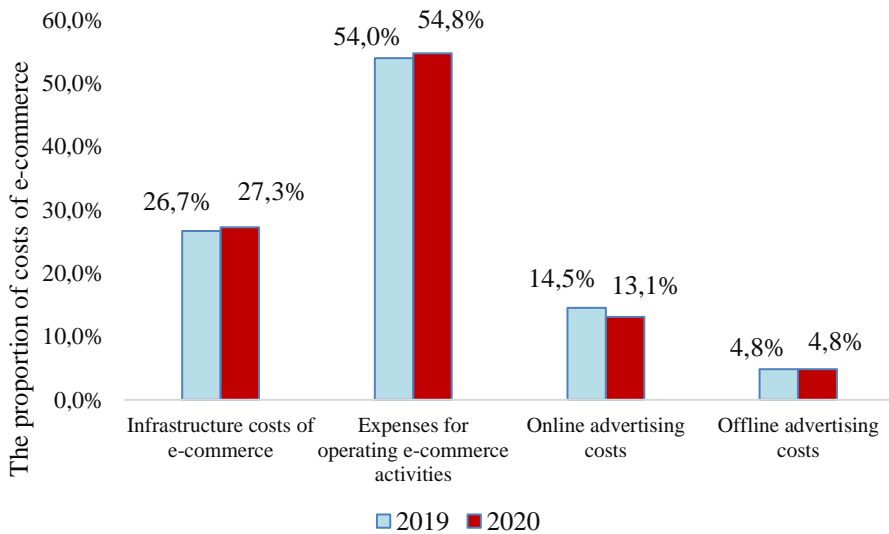
The analysis shows that this activity is prioritized by companies with promotion channels via social networks (49% of enterprises in 2019 and 53% of enterprises in 2020), online newspapers (24 in 2019 and 25% in 2020), and the app-store (14% of businesses apply in 2019 and 17% in 2020).

**Figure 3. Promote for the e-commerce channel**



Source: Calculated from data of the VEDEA, 2021.

**Figure 4. The proportion of costs of e-commerce**

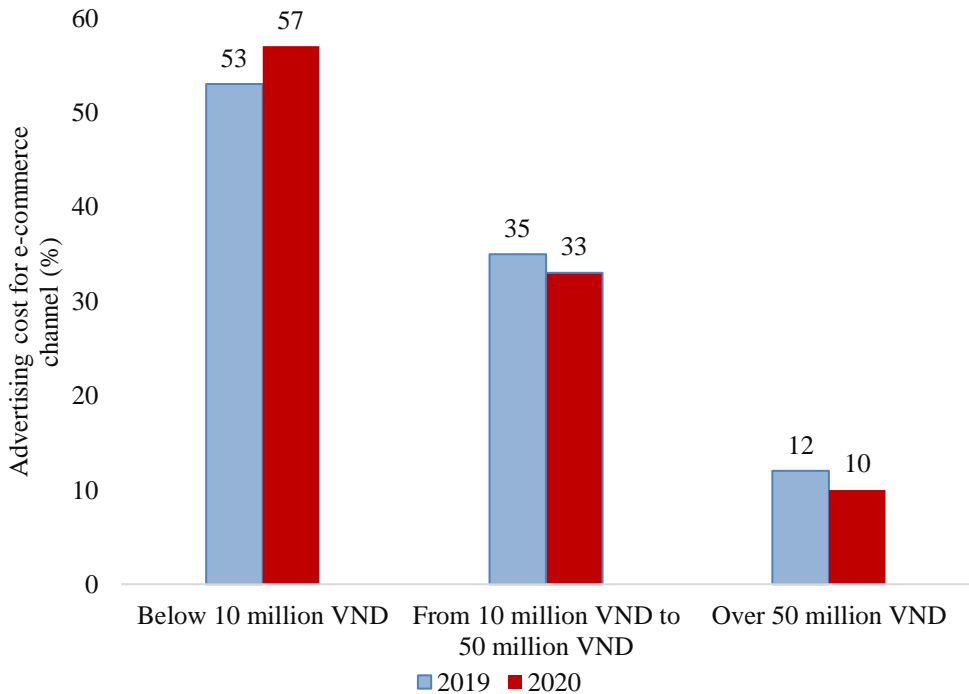


Source: Calculated from data of the VEDEA, 2021.



However, advertising activities for e-commerce channels tended to decrease in most types when the COVID-19 pandemic had a huge negative impact on the performance of companies. Specifically, the forms of advertising on search tools on the Internet and SMS/email have significantly decreased. In addition, the percentage of businesses that did not run any advertising activities has increased; specifically, in detail, 19% of enterprises confirmed that they did not conduct advertising activities in 2019 but in 2020 the number was changed to 24%.

**Figure 5. Advertising cost for e-commerce channel**



Source: Calculated from data of the VEDEA, 2021.

The cost of operating e-commerce activities is useful information obtained from the survey. The data analysis shows that companies confirm that the cost of operating e-commerce activities is the highest, followed by infrastructure for e-commerce activities and online advertising. The evidence also suggests that businesses spend relatively little on advertising e-commerce channels through offline tools such as newspapers.

Spending on advertising activities for the field of e-commerce has also been promoted by companies in recent years. 100% of the companies in the survey sample said that they have spent on promotional activities for e-commerce channels. However, companies' expenditure on advertising for e-commerce activities is still low when 53% of companies spent less than 10 million VND (approximately 450 USD) in 2019, and up to 57% of companies spend in this range in 2020. Obviously,

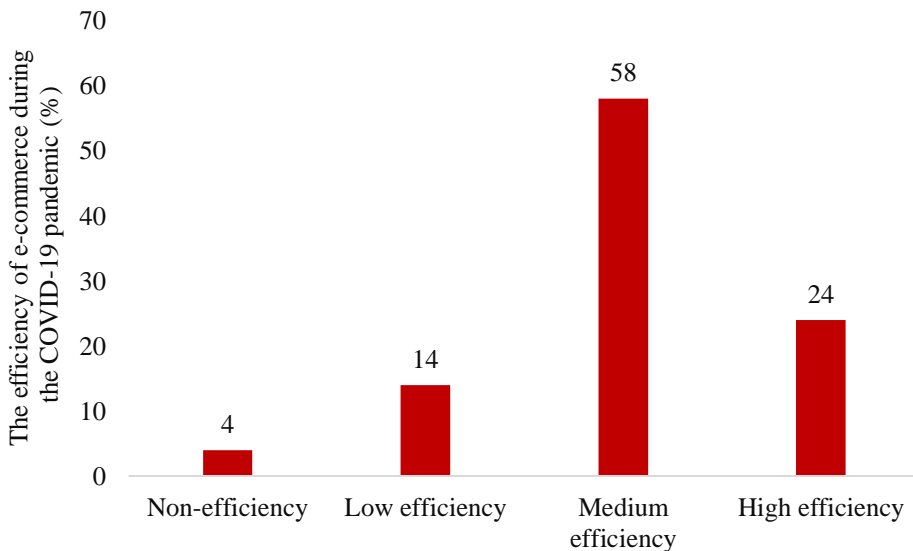
in the context of the COVID-19 pandemic, when many business fields faced huge losses, companies have tended to cut costs and save resources for surviving and overcoming the difficult periods of the outbreak of the pandemic.

The statistics from the survey still show that e-commerce is an important area for companies to run their business. The maintenance of advertising expenditures for e-commerce is clear evidence that e-commerce is one of the core activities to help businesses operate during the COVID-19 pandemic in Vietnam.

#### 4.3 The Efficiency of e-Commerce during the COVID-19 Pandemic

One of the most critical questions asked in the survey was about the opinion of business leaders on the effectiveness of e-commerce activities in 2020. The question “How does the efficiency of e-commerce during the COVID-19 pandemic?” was used to collect the information. The statistical analysis confirms that 96% of business leaders answered that e-commerce activities are effective. Specifically, up to 24% responded at a high-efficiency level, 58% said that the efficiency was moderate, and 14% rated it as low efficiency. The survey shows that only 4% of businesses rate e-commerce as an ineffective tool.

**Figure 6. The efficiency of e-commerce during the COVID-19 pandemic**

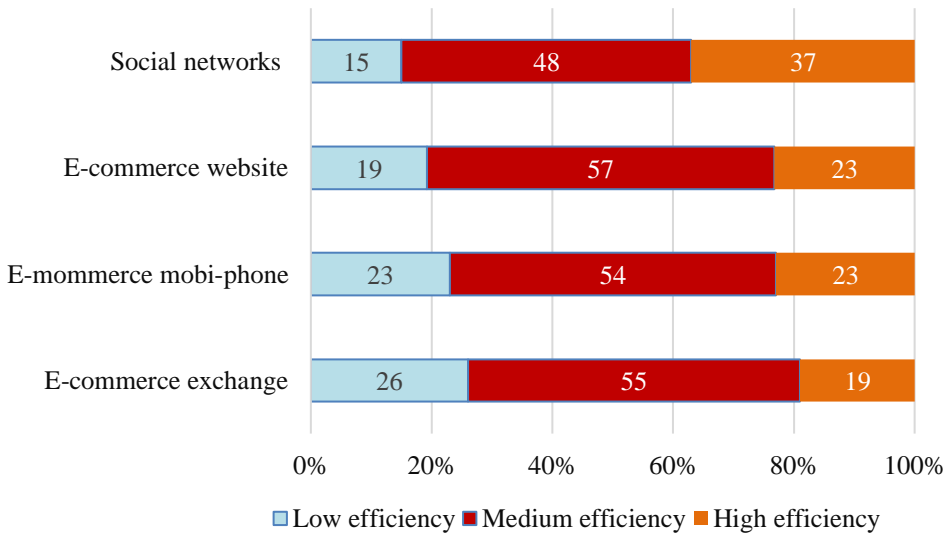


Source: Calculated from data of the VEDEA, 2021.

The survey confirmed that e-commerce activities have been effective in helping the business community overcome difficulties caused by the outbreak of the COVID-19 pandemic. E-commerce was an effective connection between businesses and consumers in the market in 2020. Besides, in order to explore the effectiveness of e-commerce through a number of operating channels, the question “How does the effectiveness of e-commerce through this channel (social

networks/E-commerce website/E-commerce mobi-phone/E-commerce exchange)?” is used to extract this information.

**Figure 7. The effectiveness of e-commerce through some channels**



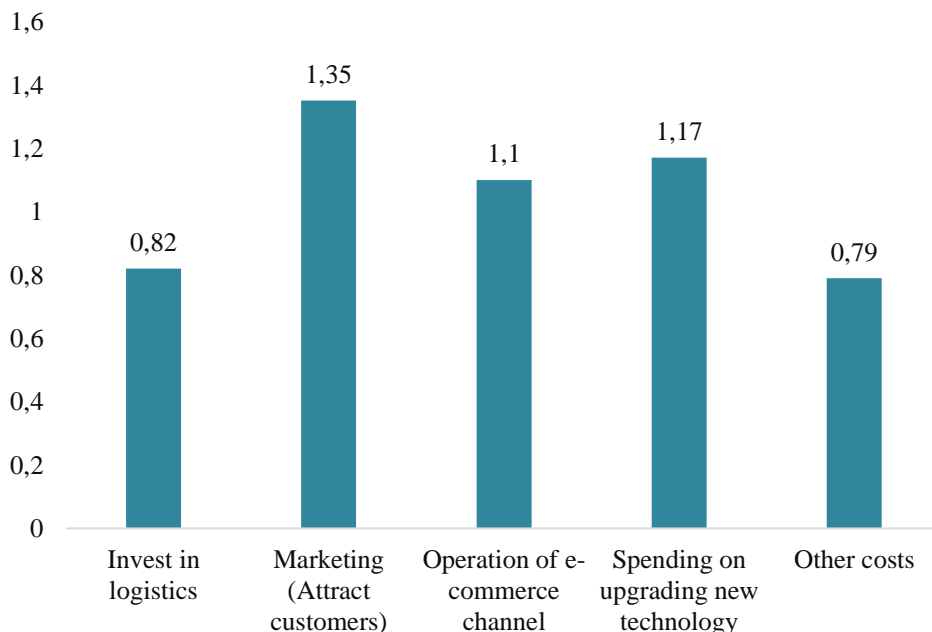
Source: Calculated from data of the VEDEA, 2021.

The analysis shows that social networks are the most effective e-commerce channel when up to 37% of businesses confirmed a high efficiency level, 48% ranked at medium efficiency. Ranked second is the website, this e-commerce channel received a 23% high-efficiency rating and a 57% average rating. Besides, the mobile-phone is a useful channel for e-commerce when up to 23% rate at high efficiency and 54% rate at medium efficiency level. The e-commerce exchange had 19% high efficiency rating and 19% average efficiency. Thus, the survey result continues to confirm that promoting e-commerce is an important business strategy in the coming time.

#### 4.4 Challenges for the e-Commerce Development

The challenges of e-commerce operations are also useful information received from the survey. These challenges may become barriers to the development of this type of business in the near future. The leaders of companies need to focus their resources on overcoming these challenges to promote the effectiveness of e-commerce. The questionnaire was conducted with a Likert scale consisting of 3 levels, 0: No challenge, 1: moderate challenge, and 2: major challenge. Then, the mean indicator index of this survey criteria is calculated and shown in Figure 8.

**Figure 8. Challenges for the e-commerce development**



*Source:* Calculated from data of the VEDEA, 2021.

The statistical analysis shows that companies consider that the biggest challenges in promoting the development of commerce are marketing (to attract the new customers), spending on new technology, and costs for supply chain operation, respectively. On the other hand, businesses insist that logistics and other costs of e-commerce are not challenges for promoting this type of business in the near future.

## 5. Conclusion

The purpose of this paper is to explore the development of e-commerce in Vietnam. The study database is taken from the survey conducted by the Vietnam e-Commerce and Digital Economy Agency (VEDEA, 2021) with 4466 enterprises. The target period of the survey is two years 2019 and 2020. The study result has revealed that e-commerce has played an important role in promoting business in Vietnam by increasing the connection between companies and customers in the market. The development of e-commerce is expected to be much stronger in Vietnam in the coming time. There are a large number of companies announced that e-commerce is effective for businesses, but the costs related to e-commerce operation are also challenges in the coming time.

There are some managerial implications drawn from the results of this study. First, leaders of companies need to spend more resources on e-commerce activities in the coming time because the level of competition in the market will increase. Companies must consider e-commerce development as one of the core elements of

their business strategy in the post-COVID-19 pandemic. Second, businesses need to continuously improve product quality and service quality because these are key points affecting consumer purchase behavior, as well as increasing customer loyalty. Third, companies should continue to promote themselves through social networks and online newspapers. These platforms will provide businesses with the necessary tools to contact customers, thereby helping to increase the access number to e-commerce sites, then increase sales. Fourth, investment in upgrading technology infrastructure is necessary (both software and hardware infrastructure) in order to ensure the safety of customer information and transactions, contributing to improving buyers' confidence in online purchase activities. On the other hand, policymakers need urgent policies to upgrade the national information infrastructure system and complete regulations in laws related to e-commerce. National incentive and support policies (e.g., allowance credit funds) are needed for developing this type of business in Vietnam in the near future.

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