Abstract: Vietnam e-commerce has a miraculous acceleration based on the advantages of a young population, the popularity of smart mobile devices along with the improvement of legal and payment platforms. and logistics. This fact has made Vietnam one of the fastest growing e-commerce markets in Southeast Asia. Not only that, Vietnam e-commerce is forecast to continue to grow rapidly in the period 2020 - 2025 with an annual growth rate of over 30%. However, the most important issue for e-commerce to continue to accelerate as expected and to develop stably is the need to objectively and accurately evaluate the results achieved as well as find out the shortcomings, explaining the causes of the existing e-commerce market in Vietnam. The article has detailed the current situation of Vietnam e-commerce market, as well as based on statistics and market outlook forecasts of reputable e-commerce research organizations in Vietnam as well as in the world to propose solutions in order to develop e-commerce in Vietnam to a new high level.

Keywords: E-commerce in Vietnam; E-commerce market; developing Vietnam e-commerce; the period 2020 – 2025; JEL: M21, O32, O33

INTRODUCTION

As one of the leading core areas of the digital economy, e-commerce is a business field in which the advanced technologies of the industrial revolution 4.0 are widely applied to increase production efficiency, and to automate the distribution system and increase the competitiveness of the business, promoting both domestic and export markets. Vietnam e-commerce is expected to have a great impact on the development of the whole national economy, when it is set to rank second in Southeast Asia by 2025 and become a developed e-commerce market, most echoed in the area, through building consumer confidence in e-commerce, strengthening infrastructure systems and supporting services for e-commerce, promoting e-commerce applications to support industries, to export main products, to expand the consumption of goods in the country and promote the development of e-commerce in localities throughout the country.

An overview of the development of e-commerce in Vietnam

In recent years, Vietnam e-commerce has grown by leaps and bounds, especially the impressive growth in 2018 and 2019 when e-commerce sales respectively in approximately 9 billion USD and 12 billion USD. Besides, in parallel with promoting e-Government in providing public services, at the same time developing logistics and payment infrastructure, legal and policy infrastructure for e-commerce continues to be completed that create momentum for Vietnam e-commerce breakthrough in both market value scale and positive changes in people's shopping behavior. The e-Conomy Southeast Asia 2018 report, conducted between Temasek (Singapore) and Google, stated that Vietnam's digital economy as a "dragon of transformation" grew 38% in the period 2015 - 2018, reaching the scale of 9 billion USD. In particular, it is worth noting that e-commerce in 2018 almost doubled compared to 2017. This country is like an emerging dragon of the region. With the e-Commerce 2018 market doubling from the previous year, while Online Advertising and Game growing 50% per year, Vietnam's digital economy is booming.

If 2018 is considered the year that creates growth momentum for Vietnam e-commerce, 2019 is a pivotal year for the development of Vietnam e-commerce when there are specific signs that the market is With more maturity and e-commerce will focus on adding new value rather than depending on discounts, customers are now more focused on personal, interactive and socialized experiences. The report on Vietnam e-commerce Map 2019 - 2020, conducted by the e-commerce portal iPrice in collaboration with research units SimilarWeb, App Annie and YouNet Media, shows that in 2019, online shopping has gradually become a reflex towards Vietnamese consumers. Whenever there is a need, they will open their favorite application or type the website address and access it immediately, without hesitating to search or choose as before. Besides, e-commerce is one of the most interested industries on social networks in 2019, attracting millions of discussions each month. This information once again proves the popularity of e-commerce in Vietnam.
According to the e-Conomy Southeast Asia Report 2019 by Google, Temasek and its partner Bain & Company have published specific figures on Southeast Asia’s digital economy, including the 6 largest markets: Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. In particular, Vietnam and Indonesia are two markets that breakthrough in the trend of developing the digital economy compared to other countries in the region, with growth rates exceeding 40% a year, while other countries the rest grow 20-30% annually. The report shows that the digital economy in Vietnam will reach 12 billion USD in 2019 and is expected to have a breakthrough to 43 billion USD by 2025, including the fields of E-commerce, Online Travel, and Online Media and Ride Hailing.

*Fig.1: Vietnam’s Internet economy*  
(Source: [8])

According to the White paper of Vietnam E-commerce 2020 of Vietnam E-commerce and Digital Economy Agency - Ministry of Industry and Trade, in the 5-year period of implementing the Master Plan for e-commerce development for the period 2016-2020, issued together by the Prime Minister. Decision No. 1563 / QD-TTg dated August 8, 2016, 2019 is the year marking many changes of e-commerce in Vietnam. Along with the high growth of the economy with a GDP of 7.02%, e-commerce has contributed significantly to promoting the flow of goods and services, supporting businesses, especially small and medium enterprises looking for effective production and business opportunities in the context of deep integration and the spillovers of Industry 4.0. The goal set out in the Master Plan to 2020 is that 30% of the population will participate in online shopping with an average annual value of about US $ 350 / person; direct transactions between enterprises and customers increased 20% per year, reaching 10 billion USD and accounting for 5% of the total retail sales of consumer goods and services nationwide. This goal was realized in 2019 when B2C Vietnam e-commerce sales even exceeded the target of 10.8 billion USD, accounting for 4.9% of the total retail sales of consumer goods and services nationwide. 42% of the population participate in online shopping. Vietnam has the top 3 growth rate of e-commerce in Southeast Asia. In 2019, Vietnam owned 61 million Internet users. The average Vietnamese spends 3 hours and 12 minutes using the Internet on mobile devices, focusing on social networking and communication applications (52%), video viewing applications (20%) and games (11%) with the same applications for work.

Digital 2020 Report updated July 2020 by We Are Social and Hootsuite also shows that the an online consumer in Vietnam consumes an average of about 132 USD in 2019, the percentage of e-commerce transactions by consumers perform on mobile devices is 53% of total e-commerce transactions.

Basically, when viewed in general, the development of e-commerce in Vietnam in recent years is shown in the following main features:

Firstly, hand-held mobile devices have become the main means to purchase in the development of e-commerce in Vietnam. Statistics of the US Economic and Financial Information Channel (CNBC) and eMarketer.com have shown that the majority of online customers and shoppers in Vietnam nowadays tend to use portable mobile devices (mobile phones, tablets ...) to perform operations and acts of buying and selling products online, more than the number of people buying through laptops or desktop computers. The White paper of Vietnam E-commerce 2019 and White paper of Vietnam E-commerce 2020 publish the results of a survey of 1002 people participating in e-commerce activities nationwide on the use of electronic means to order online shows that: In 2018, the proportion of the population using mobile devices to order goods online accounts for 81%. In 2019 this rate will be even higher when the population using mobile devices to buy goods accounts for 90%. Meanwhile, the proportion of the population using laptops and desktops for online shopping accounted for 61% in 2018, in 2019 this rate has decreased to 36%

Vietnam EC market 2019 – 2020 was conducted by Q & Me surveying 535 users in Hanoi and Ho Chi Minh City shows that the role of smartphones in increasing online retail sales in Vietnam is reflected in 79% of buyers.
make purchases via mobile apps, and mobile browser accounts for 51% in 2019. This makes mobile devices become the dominant means of Vietnam online shopping and help users repeat purchases as they have more contacts with sellers.

![Device to shop online](image)

*Fig. 2: Devices used for online shopping*

(Source: [11])

Secondly, e-commerce on social networking platforms has developed strongly. According to the Digital 2020 Report of We are Social and Hoot Suite, as of July 2020, the number of Facebook users in Vietnam is about 64 million people, ranking 7th in the world after only countries: India - US - Indonesia - Brazil - Mexico - Philippines. NapoleonCat's statistics also show that the total number of Facebook users in Vietnam 2020 has 69,280,000 users by the end of June 2020, accounting for 70.1% of the entire population. So, compared with 45.3 million people in 2019, now in 2020 Facebook users in Vietnam have increased by 24 million, equivalent to an increase of 53.3%. With about 70 million active users on social networking sites in Vietnam today and most of today's social networks add a “buy” button to help buyers make shopping immediately, ie on the seller's social networking site without having to visit the sales website. This has resulted in e-commerce on social networking platforms being the most active form of transactions in Vietnam so far.

Vietnam EC market 2019 - 2020 was conducted by Q & Me, which surveyed 535 users, also pointed out that social commerce is the driving force behind online retail sales when more than 79% of users have purchased online through social networks. The rate of purchasing on social networks increases with each year, and the Facebook is commonly used to make shopping. In addition, White paper of Vietnam E-commerce 2020 of Vietnam E-commerce and Digital Economy Agency with a survey of 1002 people nationwide has shown that the main online shopping channel of Vietnamese are forums and social networks with the growth from 36% in 2018 to 57% in 2019, while the percentage of online shoppers on e-commerce websites has decreased from 74% in 2018 to 52% in 2019.

In addition, livestream is still the most commonly used way of selling on social networks, because of the high and immediate interaction between the two buying and selling objects. The Map of Vietnam E-commerce 2019 - 2020 was conducted by iPrice in collaboration with SimilarWeb, App Annie and YouNet Media shows that livestreaming on mobile devices is the main competitive trend when all 4 largest B2C E-commerce Exchange in Vietnam have in turn launched the livestream feature on the application and organized large-scale entertainment and promotion programs to promote this feature.
Fig. 3: Livestream is used at the largest B2C E-commerce Exchanges in Vietnam
(Source: [10])

Thirdly, the line between traditional commerce and e-commerce is fading due to the development of omnichannel e-commerce so that businesses can be present anytime, anywhere on the devices that consumers are using. Statistics of Vietnam E-commerce and Digital Economy Agency shown in the White paper of Vietnam E-commerce 2019 with surveying e-commerce forms of 4256 enterprises and White paper of Vietnam E-commerce 2020 with surveying 3890 enterprises showed that: In 2018 there were 44% of enterprises use the website and 45% of enterprises use the website in 2019; the proportion of enterprises using social networks to make sales activities accounts for 36% in 2018 and 39% in 2019; the proportion of enterprises using E-commerce Exchanges for business accounts for 12% in 2018 and increase to 17% in 2019; The proportion of enterprises using mobile applications for business accounts for 13% in 2018 and increases to 16% in 2019. The fact that enterprises use a variety of channels to do business has created familiarity. Belonging to, comforting and increasing consumer confidence online, so online consumers tend to participate more in e-commerce transactions. This is one of the many basic reasons that make up the sudden growth of e-commerce in Vietnam in recent years, especially in 2018 and 2019.

Fourthly, the deeper participation of foreign businesses and organizations in Vietnam e-commerce market, such as: Amazon, Google, Alibaba, SEA, SBI Holdings ... This is a significant sign that the development potential of Vietnam e-commerce market in the coming years. The brightest and most notable point of Vietnam e-commerce market in recent years is probably the deeper, broader participation and strong competition of foreign businesses and organizations participating in the e-commerce market. Vietnam. Specifically: SBI Holdings of Japan added 51 million USD to Sendo at the beginning of 2018. Also in 2018, Alibaba invested an additional 2 billion USD in Lazada Southeast Asia and SEA increased by 1,200 billion VND equivalent to 50 million USD of capital for Shopee in Vietnam. This event marks the determination to compete of enterprises in the battle for market share in the Vietnamese market - a market that is forecasted to reach a value of up to 23 billion USD by 2025 and grow over 30% each year. This opens up many opportunities for Vietnam to develop the e-commerce market commensurate with its inherent potential and strategic position in Southeast Asia. With two 'leaders' of Hanoi and Ho Chi Minh City among the 7 major cities developing the region's digital economy, Vietnam has become the third largest investment destination in the region, with 600 million USD invested from 2018 to the first half of 2019. The number of investments is less but with higher value in 2019. Some investments in MoMo, Sendo, Topica from international investors contribute to Vietnam has become a destination for investment. The e-Conomy Southeast Asia 2019 report by Google, Temasek and Bain & Company shows that investor confidence in Vietnam - the third most funded country in the region after Indonesia and Singapore, is on the rise. Over the past four years, Vietnam's Internet economy has attracted nearly 1 billion USD in funding, with 2019 considered a record year for e-commerce in attracting foreign investment.

Fig. 4: Foreign direct investment in Vietnam’s Internet economy
(Source: [8])

Fifthly, the legal infrastructure of e-commerce in the 2016-2020 period is basically completed with the provisions on tax administration in e-commerce (Law on Tax Administration 2019). Accordingly, enterprises operate in the E-commerce sector has or will conduct transactions with tax authorities electronically, build IT infrastructure, have accounting software system, electronic invoice distribution software to meet e-invoice preparation and lookup, storing e-invoice data according to regulations and ensuring the transmission of e-invoice data to the buyer and to the tax authority, using e-invoices without the tax authority’s code when selling goods. provision of services, regardless of the value of each sale of goods or service provision (Clause 2, Article 91). For e-commerce operation, digital-based business and other services provided by an overseas supplier who does not have a permanent establishment in Vietnam, the overseas suppliers have obligations to directly or
authorize tax registration, declaration and payment in Vietnam in accordance with regulations of the Minister of Finance (Clause 4 Article 42). On January 17, 2020, the Vietnam Government issued Decree No. 10/2020/ND-CP regulating the business and business conditions of transport by car, which clearly defines the responsibilities of the supplier software application for transport connection support (Article 35). In addition, a series of regulations on information safety and security (Law on Cyber Security 2018), goods trading activities and activities directly related to the purchasing and sale of goods by foreign investors, foreign-invested economic organizations in Vietnam for the provision of e-commerce services (Decree 09/2018/ND-CP); on electronic transactions in financial activities (Decree No. 165/2018/ND-CP) was also issued. This fact has created many favorable legal prerequisites for State management agencies to manage, supervise and help enterprises.

Sixthly, awareness of enterprises and establishments providing goods or services to accept non-cash payments has been a positive change. According to the White paper of Vietnam E-commerce 2020 of Vietnam E-commerce and Digital Economy Agency, it shows that people can use non-cash payment methods at 100% of modern supermarkets, shopping centers and distribution establishments; 100% of electricity and telecommunications providers accept non-cash payments; 40% of water providers accept non-cash payments. This fact will help develop the network of accepting non-cash payments widely and facilitate the use of non-cash payments by people when making transactions at these establishments.

Seventhly, the transportation and logistics network for e-commerce covers all provinces and cities across the country. The number of postal businesses participating in the e-commerce supply chain is increasing. According to the White Paper of Vietnam E-commerce 2020 shows that: by the end of 2018, the total number of postal service points of the whole market will be over 16,400 points, of which approximately 13,000 points belong to the public postal network.

According to the E-Commerce Industry in Vietnam - Edition 2018 of EU-Vietnam Business Network (EVBN) citing Ken Research 2018 shows that the E-logistics market in Vietnam is worth 90 million EUR, equivalent to about 103 million USD in 2018 and is expected to have an average annual growth rate of about 42.1% until 2022. This fact proves the development and potential of the logistics service market for e-commerce activities and through that, contributing significantly to the growth of e-commerce in Vietnam in the past and coming time.

**Fig.5: Growth rate of Vietnam’s logistics services market**

(Source: [6])

**The existing problems of Vietnam e-commerce today and their causes**

**The existing problems of Vietnam e-commerce today**

Although the current e-commerce in Vietnam has developed quite quickly and impressively, and it is expected to continue to have strong growth in the coming time, however, the current Vietnamese e-commerce market still exists. at the following issues:

Firstly, consumers' confidence in online transactions is not high, it can be seen clearly that most e-commerce transactions in Vietnam today mainly use the form of COD (Cost on delivery - Thanh payment on receipt). A survey of 1002 individuals nationwide according to the White Paper of Vietnam E-Commerce 2020 of Vietnam E-commerce and Digital Economy Agency shows that: Although it has decreased in comparison to 2018, the use of cash when receiving goods in the form of COD to pay e-commerce transactions still accounting for 86% in 2019. Meanwhile, the use of domestic ATM cards, using credit and debit cards to make payments in 2019 is only 39% and 17%. In 2018, the proportion of using domestic ATM cards and using credit and debit cards for payment was 42% and 31%, respectively.

According to the E-commerce in ASEAN of the Australian Government published in August 2019, citing Euromonitor's source shows that in Vietnam, up to 72% of payment for online shopping transactions is using cash, using payment cards accounted for only 17.7%, while electronic transfer accounted for 10.3%.
Statistics in 2019 from the International Data Group (IDG), nearly 40% of the Vietnamese population has a bank account but still 80% of daily spending is using cash, 98% uses cash. When paying for items under 100 thousand VND and nearly 85% of transactions at ATM are transactions of cash withdrawal.

Meanwhile, according to the Vietnam Card Payment: Opportunities and Risks to 2023 of GlobalData, cash is still the most popular payment method for purchases via e-commerce sites in Vietnam, accounting for 35.6% of total transaction value in 2019. Following is card payment and bank transfer, respectively, accounting for 28.4% and 20.5%. Alternative payment solutions are gradually dominating and currently accounting for 15.5% of the market share.

Secondly, the tax loss in e-commerce. The Tax Department has made significant strides in applying the advances of information technology to taxpayers such as: forming a team of specialized staff throughout the tax industry to provide support services to taxpayers; established and developed a general information page (Website) of the tax industry and in a number of local tax departments also had their own information pages to provide information on tax laws and tax administration; providing support software for taxpayers to declare the tax ...

In fact, for many years, State management agencies have clearly identified tax in e-commerce as a great source of income, but until now, there is no solution. In order to collect taxes effectively, the contribution of e-commerce to the State budget is still very limited. That is a limitation and also a requirement for developing Vietnam e-commerce in the coming time.

Thirdly, the issue of fake goods, counterfeit goods, poor quality goods, goods that do not match the description of the seller and the issue of protecting personal information, protecting the interests of consumers when participating in transactions. Online shopping translation still has many shortcomings. For example: The "cow's tongue" map was sold on shopee and then the authorities also seized 30 cases of "cow's tongue" map sold on Shopee. This shows the fact that the floating situation of poor quality goods, counterfeit goods, counterfeit goods and even unauthorized goods is being sold online rampantly on B2C e-commerce Exchanges and social networking sites, it appears quite popular in Vietnam.

The results of the survey of individuals nationwide by the E-Commerce and Digital Economy Agency are shown in the White Paper of Vietnam E-commerce 2019 Report (survey of 1692 individuals) and White Paper of Vietnam E-commerce 2020 (survey of 1002 individuals ) which shows the biggest obstacle for users when buying online is that the product is of poor quality compared to the advertisements, referrals or commitments of the seller, accounting for 83% in 2018 and 72% respectively in 2019.
Fourthly, the human resource for e-commerce in our country is currently in short supply in terms of both quantity and quality, because the majority of candidates in this field have not been properly trained. According to the White Paper of Vietnam E-commerce 2019 of (survey of 4,256 enterprises in the country) and White Paper of Vietnam E-commerce 2020 (survey of 3890 enterprises in the country) of Vietnam E-commerce and Digital Economy Agency, it shows: accounting for 31% of enterprises, difficulties in recruiting skilled personnel in e-commerce and IT in 2017; 28% of businesses have difficulty with this issue in 2018; 30% of enterprises have difficulty in recruiting e-commerce and IT personnel in 2019. Thus, the problem of recruiting personnel specializing in e-commerce and IT of enterprises is a difficulty that tends to increase. Meanwhile, the proportion of enterprises with staff in charge of e-commerce tends to decrease, specifically: in 2017 this rate was 30%, but in 2018 it dropped to 28% and it continued to decrease to 27% in 2019.

In addition, the survey results on the skills of e-commerce and IT that enterprises are in need and difficult to recruit include: skills to exploit and use e-commerce applications (up from 45% in 2018 to 49% in 2019); Website administration and e-commerce trading floors are still in great demand for enterprises but according to the survey results, this rate has tended to decrease (from 49% in 2018 to 46% in 2019). As for other skills, enterprises also faced many difficulties, specifically: Skills of planning and implementing e-commerce projects (up from 42% in 2018 to 45% in 2019); Database management skills (up from 43% in 2018 to 45% in 2019); Online marketing skills (up from 35% in 2018 to 39% in 2019); The skill of implementing online payment increased slightly from 28% in 2018 to 29% in 2019. This fact shows that the demand for e-commerce human resources of businesses is very much, but businesses today are still short of human force with good professional qualifications to meet the job requirements.

Fifthly, the risk of defrauding users online to collect information about payment means in order to steal money in accounts is increasing. Previously, the object's common method of phishing was to use any phone number (junk SIM) to distribute fraudulent content. This fraud has been warned and propagated to people in many different ways. However, recently, fraudsters have changed their methods and tricks to fake messages from banks, more dangerous than these fake messages are stored in the same folder as the Real bank messages on user's mobile phones or with the same email address as real banks. Therefore, customers of banks will easily mistakenly think that this is the official announcement from the banks or relevant agencies. This is a very sophisticated and completely new trick. By various sources, after obtaining customer information of banks, the subjects will send bank fake messages to that customer. In the content of these fake messages, there are always links to fake websites managed by objects (these websites have the same name as the official websites of banks), so people easily mistakenly think, caught off guard. When users access the link in the text of the message, the system will automatically display a fake website with the same interface and logo as the official website of the bank and is required to fill in information such as: Username, password, OTP code ... Upon obtaining the information, the subjects will be able to control the customer's online money transfer account and perform the following acts: Transfer, overdraft, Credit card topup, online loan registration...

Another form of fraud against e-wallet users is also on the rise today, which is taking advantage of the loopholes of many customers, who pretend to be technicians, customer care givers of e-wallet units to contact and handle technical errors of the customer's account. Then ask the customer to provide the e-wallet account information and provide the OTP to confirm the account, the attacker will then make unauthorized money transfers. In another move, fraudsters exploit information when customers using e-wallets have questions and post questions on the supplier's website / fanpage. At this time, the fraudster takes customer information and pretends to be the service provider's employee contacting the customer to "take care", asking about problems when using the service. After that, the subject will request the customer to provide banking information as a step to fix the service error. From here, the criminal will get the customer's bank account information and steal the money.
The development of e-commerce in Vietnam in recent years still has the aforementioned problems due to the following reasons:

Firstly, the practice of business ethics of e-commerce enterprises in Vietnam, especially domestic enterprises, is lacking and weak. Listening, receiving and responding to online consumers' opinions on a timely basis has not been done well by e-commerce enterprises, especially issues of: quality of goods, return of goods, refunds... Therefore, online consumer confidence in businesses and sellers is not high. If the trust in consumers is built, it will help stimulate e-commerce demand.

Secondly, tax collection in e-commerce is facing many difficulties because:
On the one hand, Vietnam is now using paper invoices mainly for e-commerce transactions (Paper invoices account for 91.8%, the rest are electronic invoices). At the same time, there are currently no sanctions requiring businesses to use electronic invoices. When using popular paper invoices, it will be difficult to control because they can be replaced, have low reliability, it is difficult to accurately control how many products your business sells, how much revenue is earned ... That leads to the difficulties of tax administration agencies in managing declaration and determining the tax payable by sellers. However, this has not been done yet, so the tax authorities have difficulty managing declarations.

On the other hand, it is very difficult to manage sales as well as service provision of both businesses and individuals selling on social networking sites. Sales and advertising are still used via phone text messages, making it difficult for tax authorities to control revenue. Due to the nature of selling on social networks, information exchanged on personal pages, or via text messages are kept confidentiality following to the customer information security mechanism that the service provider websites currently have. Especially after the lawsuit that Facebook disclosed personal information or some other businesses ... So these service providers have not fully cooperated with the tax authorities to provide information such as: delivery history translate, exchange personal or even corporate sales messages on Facebook...

In addition, because the Tax Administration Law 2019 was just issued on June 13, 2019 and started to take effect from July 1, 2020, so far there has been no decree or circular specific direction. implementation guide in practice. Currently, the tax administration agency is submitting to the Government a project on implementing e-invoices. But the project has not been approved yet, but is still in a draft for comments. For tax collection activities, currently, the taxes that businesses and sellers in e-commerce have to fulfill their obligations to the state include: value added tax (VAT), corporate income tax (CIT), personal income tax (PIT) and other specific taxes. However, the legal provisions on the above taxes also do not have any specific regulations on taxation for e-commerce activities. This means that, there is no distinction between e-commerce activities and traditional commerce. This leads to difficulties in tax administration and tax loss prevention in e-commerce of state management agencies.

In addition, in Vietnam today, mainly payment activities in e-commerce are in the form of Cost on delivery - payment when receiving goods in cash. Therefore, it is difficult to record and monitor transactions. It is estimated that more than 80% of e-commerce payments in the Vietnamese market use cash. Management under the account when registering a business is very poor. With a small transfer rate and mainly cash payments, managing the revenue for tax declaration and tax calculation is not easy for individuals.

Thirdly, with the situation of floating goods that make goods of unknown origin, counterfeit goods and counterfeit goods in e-commerce are still popular as today, it must be admitted that the most important reason is the implementation of market management of State management agencies for goods purchased and sold in e-commerce has not been implemented well (possibly due to policies focusing on stimulating demand for e-commerce transactions). Fourthly, the training of e-commerce human resources of training institutions in Vietnam is lacking in both quantity and quality in order to keep up with the current rapid development of the e-commerce industry. In fact, human resources in the e-commerce industry need wide knowledge in many fields such as business, information technology, administration and foreign languages, so it requires long training time, short-term classes and vocational training. temporary in times of lack of manpower. Therefore, long-term formal training at higher education institutions, colleges becomes the "salvation" for human resources of e-commerce. In countries around the world, e-commerce human resources are formally trained at universities or colleges or have specialized courses on e-commerce. However, in Vietnam today, although there are many schools in the country that have specialized in e-commerce training, they have yet to meet the expectations in terms of both quantity and quality of the market and practical requirements of enterprises.

Fifthly, the habit of consuming in cash is ingrained into people's subconscious, along with the fear of approaching new payment technology, as well as concerns about security, safety and spending. When using electronic payment methods, people still mainly use cash for payment. In addition, infrastructure and technical equipment for the deployment of electronic payment methods are ineffective, not commensurate with the potential. Currently, financial institutions (including banks, payment intermediaries and e-wallets) all build their...
own payment equipment system at a point of acceptance, so it uses both wasteful and inexhaustible common infrastructure.

More importantly, the legal corridor in the e-payment field has not been completed yet, although it has been much improved over the past time, it has not been evaluated fully and synchronously. State policies on e-payments have not made a significant breakthrough, the Government has not yet codified electronic payment activities to create an environment for service development and form a mechanism to protect subjects and objects. in operation as well as building an effective and objective dispute resolution process.

Sixthly, when e-commerce develops rapidly, the expanding market size will inevitably entail risks and arise many risks of user fraud to steal money when users perform online transactions. Nowadays, technology attackers increasingly find different ways to attack user behavior, especially against users' psychology of trust with a particular brand that users are. Using, such as: a bank where the user opens an account or an e-wallet service provider that the user is using ... Through it, the attacker can easily ask the user provide information about your means of payment, even one-time passwords - OTP for them to use for illegal purposes.

**Development prospects of Vietnam e-commerce**

It is very clear that the development of Vietnam e-commerce market is only in the early stages and therefore Vietnam e-commerce market is still very potential with a very large market size. The most obvious evidence to prove this is the strong participation and investment of foreign enterprises and organizations to gain market share in e-commerce in Vietnam such as lazada, shopee, sendo, tiki ...

Firstly, according to world population statistics and projections, Vietnam currently has about 96 million people and in the period from 2020 to 2025, Vietnam continues to be a country with a young population structure with an average age fluctuating from 30 to 39 years old (Statista, 2021). This makes Vietnam is considered to be the period with the highest proportion of golden population structure ever. These are the basic advantages for Vietnam to become a potential online retail market, because young people are often judged to have acumen in grasping technology, and like to experience new products and services. many gadgets and love to participate in online shopping.

![Fig. 9: Total population in Vietnam from 2015 to 2025](Source: [15])

Secondly, according to forecasts of BMI Research (Vietnam Telecommunications Report, 2017) the number of mobile subscribers in Vietnam will reach 148.2 million by the end of 2021, with a usage rate of 151.1%, meaning a user. There will be more than 1 mobile device. Of these, 84.5 million subscribers in Vietnam will be connected to 3G / 4G. This is a favorable condition for businesses to trade goods and provide services through mobile applications to consumers.

Thirdly, the strong and popular development of social networks in Vietnam in the coming time. According to Statista's forecasts, by 2023 only the number of social network users Facebook in Vietnam will reach about 52.4 million users. The penetration rate of social network users in general in Vietnam by 2023 will reach 52%. This is a very good condition for businesses to sell on social networking platforms when the number of users of these channels is increasing rapidly and there is no sign of stopping.
Fourthly, the industrial revolution 4.0 and the Covid 19 pandemic created a strong enough incentive to push Vietnam enterprises to use online channels to participate more deeply in the global supply chain. Transformation can be said that the most typical is the e-commerce application in business operations has never been mentioned and is now turned into practical action today. The report Vietnam E-commerce accelerated after Covid-19 of the Vietnam E-commerce Association (VECOM) shows that Vietnam enterprises have quickly adapted and changed their operating, organizational and management habits. Many enterprises have implemented many training programs to improve the operational skills of business and employees, exploiting well online platforms in internal operations and connecting with customers. Employees work online from home to ensure the safety of the community and themselves, while also keeping the business running. Remote business solutions, home workers management are shared through many online forums.

According to the same report, up to 67% of enterprises surveyed require half of their employees to work online during the COVID-19 peak period (February to late April 2020), to work internally. . . parts are maintained through direct rotation; 18% of enterprises require 21-50% of employees to work online.

The pandemic creates momentum and promotes e-commerce activities of Vietnam enterprises when customers in many parts of the world and Vietnam have no other way than to be forced to sit in front of computer screens to search for products and perform purchase, sale and payment transactions via electronic devices. This is a very good condition for Vietnam e-commerce market to accelerate its comprehensive development with more e-commerce transactions and value in the coming time.

Fifthly, the US-China trade war is prompting many companies to diversify and move to Vietnam due to low production costs, stable government and increasing GDP ratios, which have turned Vietnam an attractive alternative to China. This fact shows that, in the coming time, the Vietnam e-commerce market will continue to receive investment attention, participate more deeply, broadly and strongly compete by foreign enterprises and organizations. It will facilitate Vietnam e-commerce in the coming time to have a deeper and broader approach to modern foreign technology and management methods in the organization and development of business activities on the digital platform.

Sixthly, according to forecasts of Google, Temasek, Bain & Company in the e-Conomy Southeast Asia 2019 shows that the size of Vietnam's e-commerce market in 2025 may reach 23 billion USD with a compound growth rate of 49% in the period 2015 - 2025 does not include the fields of online travel, online media and technology ride-hailing, ranking second in Southeast Asia after Indonesia. This proves that the e-commerce market in Vietnam still has a lot of untapped potential.
Solutions to develop e-commerce in Vietnam in the period 2021 - 2025

In order to overcome the limitations of Vietnam's e-commerce and further promote the development of e-commerce in the coming time, it is necessary to implement the following solutions:

For the Government of Vietnam

Firstly, it is necessary to soon promulgate decrees and circulars guiding the implementation of the Law on Tax Administration 2019 in the direction of creating a legal framework for the popular application of electronic tax administration and specific regulations on electronic transactions. in the tax sector, including the regulations that the tax authorities have to set up a data processing center in electronic transactions with the role of receiving, controlling tax records and checking automatically, paying automatic notices to taxpayers. At the same time in the context of international integration, when building, it is necessary to pay attention to international practices (currently still according to OECD regulations), especially in activities with foreign individuals and organizations.

In addition, the Government needs to improve the organizational structure of the tax administration apparatus (especially for e-commerce); ensure more optimal resource allocation to improve the efficiency of tax authorities' management in the e-commerce sector. It is possible to study to establish a specialized unit to manage tax on e-commerce activities. At the same time, combining with strengthening training on skills of exploiting, searching, retrieving and collecting information on the Internet in order to identify taxpayers who do not comply and collect information directly to inspector and examine taxpayers; Organize training courses on forms of e-commerce business, special skills for staff, skills of computer inspection, methods of collecting and tracing transactions and analyzing and recovering business data of enterprises.

Beside, the Government should directly instruct the State Tax Administration in e-commerce to build Big Data of the tax authorities on the basis of connecting and sharing with databases of other agencies. functional ministries, branches, integrate information from social networking sites, sales websites, and online trading floors to ensure that there is sufficient information needed for management.

Secondly, the Government needs to deploy the application of electronic invoices on a large scale. When using e-invoices, some general software must also be applied for the database to be shared objectively (part sent to tax authorities, part stored on enterprise servers, part customers can storage), we can control how much the enterprises sells, the proceeds ... on that basis, create a basis for tax authorities to calculate taxes and make correct and complete collection easily.

Thirdly, the Government has a mechanism to strengthen coordination between State management agencies on taxation in e-commerce with relevant ministries and agencies in tax administration for e-commerce activities. Specifically, coordinate with the State Bank of Vietnam in providing account statements of organizations and individuals engaged in e-commerce activities opened at commercial banks in Vietnam, and non-banked organizations licensed by the State Bank to provide intermediary payment services; Coordinating with courier companies, and postal companies, and telecommunications companies... that provide freight services to organizations and individuals engaged in e-commerce business to provide the amount of transported goods of organizations and individuals engaged in e-commerce activities ... to capture information of units engaged in e-commerce activities. At the same time, it is necessary to combine with the commercial banking system to inspect and check enterprises and sellers with signs of tax evasion through the control of cash flow of enterprises and sellers in e-commerce.

Fourthly, the Government continues to improve the legal corridor, build mechanisms and policies to develop e-payments, firstly research and develop the Law on Non-Cash Payment to replace the Decree on Payment do not use cash. In addition, the Government instructed the State Bank to implement and soon put into operation the automatic clearing system serving retail transactions, thereby setting up a modern retail payment infrastructure. effective, continuous, to meet the needs of fast, safe and convenient payment at reasonable costs of people and businesses. At the same time, the Government has a policy to deploy payment models in rural, remote and isolated areas in association with the development and implementation of a National Strategy for Comprehensive Finance in Vietnam, and promote electronic payments in the Government sector.

Fifthly, strengthening the State management of goods purchased and sold in e-commerce, focusing on considering the origin of goods, controlling the quality of goods, and imposing heavy penalties for cases. trading fake goods, counterfeit goods, causing discretion of e-commerce enterprises and other related parties.

Sixthly, promoting propaganda, enhancing responsibility and awareness of compliance for enterprises and people when participating in e-commerce transactions. Actively, actively, reform propaganda methods of state management agencies to communicate to businesses, people to raise awareness of negative, offensive and culturally lacking behavior in business. e-commerce transactions. At the same time, strengthening monitoring and detecting false information from the community.

Seventhly, strengthening management coordination among ministries, branches in the country and between countries around the world in the management and regulation of e-commerce activities. The management of e-commerce is related to the management field of many ministries and branches in Vietnam such as: Ministry of
Information and Communications, Ministry of Industry and Trade, Ministry of Public Security, State Bank ... Therefore, to be able to manage effectively, it is necessary to have the participation and close coordination among the concerned ministries and branches. Besides, due to the "no clear border" feature of the Internet environment in general and e-commerce transactions in particular, there is a need for coordination between the Government of Vietnam and other countries in the world with foreign service providers and foreign enterprises operating in Vietnam market such as Facebook, Google, Youtube, Twitter... to handle wrong and negative behaviors in order to build and develop a healthy e-commerce business environment.

For e-commerce enterprises
Firstly, because the nature of e-commerce is that customers transact based on the reputation, brand and value of the enterprises created with the community. Therefore, in order to further promote the development of e-commerce, increase consumer confidence, enterprises should promote ethical business practices in e-commerce, especially as: in terms of goods quality commitments, on-time delivery, exchange returns, refunds, prompt response to online customer complaints or complaints. Create a professional habit in business and put the interests of consumers before those of the business.

Secondly, in order to have a competitive advantage and resolve the increasing service requirements of customers in the coming time, it is required that e-commerce enterprises have to closely link with logistics service providers to improve warehouse system, and payment, and especially fast delivery. In the short term, e-commerce enterprises should promote the linkage, and sharing of information systems and business coordination between e-commerce enterprises and logistics enterprises to minimize order execution time. For example: when a customer places an order on the website of an e-commerce enterprise, at the same time that information is immediately shared to the system of the partner logistics enterprise to to shorten order preparation and fulfillment time and save costs.

Thirdly, following up and updating new technology and consumption trends in e-commerce, especially social networks and mobile sales platform applications.

Fourthly, e-commerce enterprises should proactive participate in the process of training e-commerce human resources with training institutions through strengthening cooperation between e-commerce enterprises and schools. This activity will help the University develop a "real" teaching team, and at the same time help businesses save additional training costs and orient learners to attach social requirements right on their seats. The knowledge gained from practice will help those who are learning in this profession, correct the lack of skills, apply the theory learned from the university lecture hall into practice. In addition, when participating in this activity, e-commerce enterprises also exploit and effectively utilize the potentials of the University's facilities, people, and expertise in training quality human resources, high level of e-commerce to meet the job requirements of businesses in the future.

For logistics enterprises
It can be seen that e-commerce development plays a role in promoting the development of professional logistics services and vice versa, professional logistics services play a significant role in the success of e-commerce enterprises. To promote the development of e-commerce in Vietnam in the coming time, Vietnamese logistics enterprises must simultaneously implement the following solutions:

Firstly, applying technology 4.0 in the transport and logistics industries. Gradually implement E-Logistics, green logistics, E-Documents ... and apply cloud computing technology, Blockchain technology, artificial intelligence or robotics to perform some services, such as packing service. into the container or unloading the container, loading and unloading goods in warehouses, yards. ... Focusing on developing infrastructure and technology for fast delivery and on-time delivery is extremely important because this is an issue that greatly affects the experience of online consumers in Vietnam. Survey data from Q & Me's 2019 Report shows that fast delivery remains among the top 5 reasons for Vietnamese consumers to shop online in 2020. In fact, the results of this race are very likely may be the decisive factor for logistics companies success or failure to provide competitive and professional shipping services to Vietnamese e-commerce enterprises in the coming time.

Secondly, logistics enterprises should develop logistics services in rural areas with the model of a branch in rural areas, the model of a remote warehouse, the model of a secondary agent instead of just focusing on the urban area. Implementing this solution will help logistics enterprises significantly reduce costs when delivering goods in non-urban areas, implement safe logistics, shorten delivery times, serve a wider market for e-commerce enterprises while still driving revenue growth.

Thirdly, Vietnam's logistics enterprises should have a strategy to cooperate and coordinate with each other in the use of environmentally friendly and practical means. With the growing volume of goods and the current density of vehicles that can cause traffic jams, logistics enterprises should coordinate the use and use of suitable means of transport to ensure delivery time of goods and environment-friendly. In addition, the coordination of the use of vehicles will also help save costs for logistics enterprises. Pay special attention to improving delivery activities to minimize the costs of the logistics system in order to increase the price competitiveness for products purchased and sold by e-commerce enterprises.

For higher education institutions, colleges to train e-commerce human resources
For human resource training institutions in the field of e-commerce, especially Universities and Colleges should focus on the following solutions:

Firstly, to promote the training and development of human resources in schools. Education and training institutions of universities and colleges need to equip economic knowledge blocks, organize business on the internet, apply proficiently in search engines, exploit information, partners and expand business marketing. Equipping learners with e-commerce transaction skills; Applying knowledge of electronic payment, computer network, network security and digital signature in network administration, information security and confidentiality... With the development of information technology, higher education and training institutions can build virtual reality models to help students manipulate, transact and process applications quickly.

Secondly, actively renovate, amend, supplement and complete e-commerce training programs, e-commerce training methods in the direction associated with the trend of technology development and the Industrial Revolution 4.0. The modules in the training program and curriculum need to be continuously updated, inheriting from the latest research on e-commerce of the world's leading universities so that students can quickly access the global e-commerce picture. The e-commerce training program must ensure that during the time at school, learners spend a lot of time learning professional practice, not placing heavy emphasis on academic and academic knowledge. Beside, the development of the training program should be regularly and substantially consulted by stakeholders such as: learners, e-commerce enterprises, e-commerce experts, scientists, State management agencies on e-commerce.

Thirdly, higher education institutions such as universities and colleges training e-commerce majors need to conduct surveys, survey every year the employment situation of students and update the labor market demand on job trends in the field of e-commerce. On that basis, the University has necessary changes in the training and training organization in a more practical way associated with the practical requirements of the e-commerce enterprises and the Vietnamese e-commerce market.

Fourthly, promoting cooperation in training and development of human resources with reputable e-commerce and IT enterprises to update trends and reality of business requirements, understand what needs of e-commerce enterprises in terms of human resources and how much they can participate in the training process. Through this activity, educational institutions at university and college level E-commerce majors / majors can take advantage of the practicality and necessary skills from the IT experts or e-commerce specialists of the business in the human resource training process. At the same time, it helps to improve skills and practical knowledge of e-commerce for lecturers of the University, helping to shorten the gap between theoretical training and practice. On that basis, helping the University to train high-quality e-commerce human resources and after training, enterprises can select suitable candidates for their positions.

Fifthly, annually organize E-commerce Job Fair and Career Day to create a bridge to help students have the opportunity to contact, demonstrate their own capabilities and seek job opportunities in the right training majors at reputable business. At the same time, Job Fair and Career Day are also an opportunity for e-commerce enterprises to be able to seek quality human resources from the University's team of E-commerce majors for different job positions. More importantly, Job Fair and Career Day is a milestone that reaffirms the values of the interaction and connection between e-commerce enterprises and Schools have training in e-commerce after each year realizing career-oriented goals, capacity building, job placement for students; through that enhancing the development of cooperation between faculty, schools and enterprises according to the motto of associating training with business practices and social requirements.

**For people participating in e-commerce transactions and online payments**

For people when participating in e-commerce transactions and online payments need to take the following measures:

Firstly, regularly updating risk warnings or recommendations from intermediary payment service providers such as banks, e-wallet service providers ... about types of fraud risks, malicious code and prevention methods when participating in online payment transactions. However, people should also take note not to answer any emails with recommendations or warnings from payment intermediaries, even though it is in fact the real email of the payment intermediary where people open their accounts, because payment intermediaries never ask their customers to respond to such warning or warning emails.

Secondly, when receiving such scam messages, people need to carefully check the content of the received message, including brand messages from the bank or e-wallet service provider where they open their account. account to detect fake messages, do not rush to reply, or follow the content in the message. Instead, when receiving questionable and unclear messages, people can call the customer care call center of the intermediary payment service provider to check the information or ask people to consulting experience; reflect fake messages to payment intermediaries and authorities for timely action. People need to regularly change their passwords for internet banking, smartbanking, e-wallet accounts and take measures to manage and secure these information.

Thirdly, people should absolutely not log in payment services of intermediaries from strange websites and should perform electronic transactions on official and reputable website with a reliable authentication symbol. Official website of the real payment intermediaries will be registered with the authorities and are always marked
securely with two basic identification signs: the lock icon will appear in the upper corner, right hand in the address box of the browser window and the word “http” will turn into “https”.

Fourthly, absolutely do not declare and provide login name, login password, OTP code and content of notification messages from intermediary payment service providers to anyone, including the self. claiming to be a police officer, investigative agency, a bank employee, or requests from email, SMS, social networks...

Besides, people should not provide information or transaction information, especially Online purchase and sale transactions on social networks because it will create conditions for fraudsters. In addition, people do not make transactions on public electronic devices such as net shops, game stores... because of high risks or save information automatically log in to intermediary services. accounting at places using the public connection wifi system.

CONCLUSION
Vietnam e-commerce is currently at the first stages of growth, the market potential is still very large with the market scale being expanded and spread to many different sectors of the economy. In order to further promote the growth driving force of Vietnam's e-commerce in the coming time, positively contribute to the economic development, and create a traction for the national commercial economy in a modern, appropriate and Keeping up with the general development of the world, Vietnam needs to implement comprehensive solutions based on the coordination of many stakeholders including the Government, e-commerce enterprises, logistics enterprises, education and training institutions. creating Universities, Colleges and the participation of people. On that basis, it is possible to solve existing and emerging issues related to many parties in order to bring Vietnam's e-commerce to a new level, commensurate with the inherent potentials and expectations. breakthrough growth in the coming time.

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