VIET NAM E-BUSINESS INDEX

EBI 2018







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SUPPORT





















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FOREWORD

The E-Business Index is built in the context of the Internet's enormous and comprehensive impact on Vietnam socio-economy after twenty years showing up here. Having passed the establishment and universalization phase, from 2016, our ecommerce has stepped into the period of rapid development. According to estimates of Vietnam E-commerce Association, the growth rate of e-commerce in 2017 has reached over 25% and this rate may remain stable in the next three years 2018-2020.

The 2018 Vietnam E-Business Index (EBI) is established on the results of the survey on thousands of enterprises in the country. The method to generate the index is inherited from the previous years. Specially, this year's index carefully examines the registration and use of the national as well as international domains, per-capita income and the number of enterprises in each province. Considering the high relation between the rate of domain names over a thousand citizens and the infrastructure and human resources for e-commerce, similar to 2017, this year we do not build the index for provinces where this rate is too low.

Although the growth of e-commerce has spread to many regions, the gap in development is still very large. The two biggest cities and economic centers Ho Chi Minh City and Hanoi continue to grow enormously. Other than Da Nang which is the economic center of the Central region, provinces with high rankings are in the area close to the two above cities.

Beside surveying and ranking provinces' e-commerce in terms of infrastructure human resources, transactions between businesses and consumers (B2C), transactions between businesses and businesses (B2B), and transactions between government management bodies and businesses (G2B), the Report on E-Business Index also analyzes several challenges that will affect greatly the development of Vietnam e-commerce in the coming years, including tax management, sharing economy and the blockchain technology.

On behalf of Vietnam E-commerce Association, I would like to express the gratitude toward all agencies, organizations, enterprises and individuals who have supported in constructing this Report. Many Departments of Industry and Trade have enthusiastically helped the Association in investigating the e-commerce application situation in the locality, especially the Departments of An Giang, Bac Kan, Bac Ninh, Binh Dinh, Binh Duong, Binh Phuoc, Ca Mau, Da Nang, Dak Nong, Dong Nai, Ha Tinh, Hai Phong, Ninh Binh, Phu Tho, Phu Yen, Quang Nam, Quang Ninh, Vinh Phuc



and Yen Bai. The E-commerce and Digital Economy Agency which belongs to the Ministry of Industry and Trade has directed and supported us in terms of expertise. Vietnam Internet Network Information Center and several other domain registrars have provided us with reliable statistics about the Internet resource.

This Report could have not been completed without the effective support from Google Asia Pte., Vietnam Post, VeriSign, Noi Bai Express and Trading JSC (NETCO), Mat Bao JSC, Gotadi, Fado Vietnam JSC, PA Vietnam LLC, Teamobi LLC, and Xich Viet JSC (Vietguys). NAPAS, DKT, FTC, Nielsen, Z.com, Interspace, EWAY, Giaohangnhanh, and so on have consulted and provided us with valuable information.

Thousands of enterprises in the whole country have supported the Association in implementing activities for the sake of this Report. Businessman and Market Magazing and other media agencies have actively cooperated with the Association in spreading the Index to multiple targets. With the rising attention of foreign organizations and enterprises on this Index, the whole 2018 Report on Vietnam E-Business Index is translated into English.

I hereby would like to present the 2018 Report on Vietnam E-Business Index, and welcome all comments to better implement this mission in the next years to come.

Nguyen Thanh Hung Chairman of Vietnam E-commerce Association



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SECTION I – OVERVIEW OF THE 2018 E-BUSINESS INDEX (EBI)

Twenty years ago, Vietnam started to provide public Internet service, opening the period of e-business formation. After nearly a decade lacking the appropriate legal environment, e-business had established in small scale with a low number of people participating.

In 2006, the Decree on E-commerce and many other decrees instructing the Law on E-transaction were issued, marking the e-commerce universalization period that lasted 10 years (2006-2015). By 2015, a great proportion of the population and enterprises had been participating in online trading.

2017 is the second year of the third phase – the phase in which e-commerce grows rapidly. Besides that, 2017 also witnesses many big issues that the public administration agencies have to face. It is time the policy and law makers act to create a more favorable macro environment which will impact the development of e-commerce.

The challenges that policy and law makers have to deal with in this phase are clearly different from and bigger than the second phase's due to the profound changes of the digital economy. Firstly, in the previous phase, the construction of policies and regulations was based on UNCITRAL Model Law on E-commerce and on Electronic Signatures. Secondly, Vietnam was able to take as reference policies and regulations relating to e-commerce of other developed as well as developing countries. Thirdly, e-commerce had not spread to every fields of business. Therefore, other than the Ministry of Industry and Trade, the Ministry of Information and Communications, the Ministry of Finance and the State Bank of Vietnam, there are relatively few ministries and departments participating directly to the construction of e-commerce policies and laws.

In the third phase, e-transactions have penetrated every field of socio-economy, requiring direct participation of almost all departments. Plenty of new business types show up based on cloud computing, mobile technology, big data, social networks, Internet of Things and blockchain technology. Confronting this change, each country has its own policies and laws, depending on the socio-economic system. Vietnam no longer has a standard to follow.

The 2018 Vietnam E-Business Index continues to be constructed based on four pillars: infrastructure, human resources, business to consumer transactions (B2C),



business to business transactions (B2B), and government to business relationship (G2B). Factors relating to Internet domains, per-capita income and numbers of enterprises in the locality are also taken into consideration in building the Index.

While e-commerce is growing rapidly nationwide, this year's Index shows that Ho Chi Minh City and Hanoi continue to keep the leading positions. Our two biggest cities still leave all other provinces behind. Within 63 provinces and municipalities, 9 provinces do not show up in the Index. These are areas where the number of national domains ".vn" is too low and there are on average 3000 and above citizens per domain. In those 9 provinces, five belong to the Northern mountainous area (Cao Bang, Dien Bien, Ha Giang, Lai Chau and Son La), four belong to the West-Southern area (Bac Lieu, Ca Mau, Hau Giang and Soc Trang).

Vietnam needs to have robust policies and solutions to promote the leading role in e-commerce of the two economic centers and at the same time support the development of other provinces, enhancing a fast and sustainable growth in the whole nation.

1. Rates of growth: still at high levels

While there is still no official numbers from statistics agencies, VECOM has proceeded to survey enterprises in various business fields in order to estimate the rate of growth of e-commerce in 2017. The survey result shows that the growth rate for 2017 is above 25%. Many enterprises say that the rate for 2018 will maintain at the same level.

The rates of growth in some particular fields are spectacular. In the field of online retail, information from thousands of e-commerce websites shows that the 2017 revenue growth rate has risen by 35%. Indirect investigation of several leading delivery businesses reveals that the revenue growth speed from delivery service has risen from 62% to 200%.

In the field of payment, according to the National Payment Corporation of Vietnam (NAPAS), in 2017 the number of online transactions with domestic cards has risen by 50% with respect to 2016, while the transaction value rises by up to 75%.

In the field of online marketing, some affiliate marketing companies have growth rates ranging from 100% to 200% in 2017.

In the field of tourism, according to the study of Grant Thornton, in 2016 bookings through Online Travel Agencies (OTA) take 20% of booking revenue¹. The

¹ https://tuoitre.vn/dich-vu-chia-se-phong-airbnb-lay-khach-cua-khach-san-1358899.htm



2017 VECOM survey shows that this proportion continues to grow robustly and reaches a level of over 30%. Combining with the two-digit growth rate of tourism revenue, we can estimate 50% as the online tourism revenue growth².

The lack of reliable statistics on online transactions imposes great difficulties to the construction of policies and laws, as well as the construction of investment and business plans of enterprises. Public administration bodies on digital economy and government statistics offices should quickly implement activities to gather information on e-transactions, subgrouped into fields such as retailing, tourism, entertainment, education, transportation, marketing, etc.

2. Domains and websites: national or international?

An important infrastructure for online business, domain name, continues to strive in growth in 2017. The number of cumulative national top level domain ".vn" by October 31st, 2017 was 422,601, which meant a 10.5% increase compared to the same period of 2016. In which, the ".vn" domain accounted 54% and ".com.vn" accounted for 36%.

According to the survey conducted by VECOM, the growth rate of cumulative generic top level domains (gTLD) for 2017, compared to 2016, of some international domain registrars ranges from 30% to 60%, much higher than the equivalent rate of the national domain ".vn".

This rate is also very high with respect to the growth rate of top level domains (LTD) worldwide. From the report on domain name industry of Verisign³, by the end of the third quarter of 2017, the total number of LTD worldwide is 330.7 million, an 1.1% increase compared to the same period of the previous year. Meanwhile, the number of country-code top level domains (ccTLD) reaches 144.7 million, risen by 3.2% compared to the same period of the previous year. The total number of top level domains ".com" and ".net" is 145.8 million, a 1.2% increase with respect to the same period of 2016. In which, there are 130.8 million ".com" and 15 million ".net".

The total number of websites with ".vn" domain is 170,712, in which ".vn" occupies 96,320 and ".com.vn" takes 56,029. Therefore, these two sole domain names take up to 90% of websites containing the domain name ".vn".

⁴2017 Report on Vietnam Internet, Vietnam Internet , Vietnam Internet Network Information Center, Information and Communications Publishing House.

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²According to the General Statistics Office, in 2017 the revenue of accommodation service reaches 494.7 billions VND, risen 11.9%; revenue of tour service reaches 35.9 billions VND, risen 10.4%: https://www.gso.gov.vn/default.aspx?tabid=382&idmid=2&ItemID=18667

³https://www.verisign.com/en_US/domain-names/dnib/domain-name-industry-brief-reports/index.xhtml?dmn=DNIBArchives#2017



About the use of domain names for websites, the 2017 survey result shows that the proportion of websites with national domain ".vn" is 56% of all websites participating in the survey. Compared to the previous years, this proportion tends to slightly decrease. The same proportions are 36% for ".com" and 2% for ".net". The proportion of websites using other domain names such as ".biz", ".info", ".org", ".shop" and ".xyz" has the tendency to rise.

With enterprises which both had and did not have websites, in 2016 and 2017, VECOM asked them which domain they would like to have for their websites. The result showed that for 2016, 50% of the enterprises who answered the survey chose ".vn", 43% chose ".com", 3% chose ".net" and 4% chose other domains.

The result of 2017 has a small change in favor of internation domains. 47% chose ".vn", 42% chose ".com", 4% chose ".net" and 7% chose others. The result also showed that the portion of websites which have a mobile version is 17%.

The above results match the information from one of the commercial website platform most used in Vietnam Bizweb.vn. In the 35,000 customers using websites on this platform, the proportion of ".vn" domain is 41%, ".com" 48%, and other international domains 11%.

Therefore, the proportion of websites using international domains tends to increase slightly. Agencies and organizations in the fields of domain names and more generally the Internet and digital economy should conduct study to find out causations other than the profound economic integration process that are influencing this trend⁵.

3. Blockchain and cryptocurrency: a constrast picture

Blockchain is a continuously growing list of information blocks using cryptography to link and ensure security, therefore effectively preventing modification of information. First appeared in 2008 but blockchain has shown its great application in many socio-economic areas, with finance being the field it is popularly applied. Examples are cryptocurrencies, particularly bitcoin.

According to the survey of the World Economic Forum (WEF), a high proportion of leaders of enterprises and organizations (73%) thinks that by 2025, there will be governments collecting tax with the help of blockchain and 10% of global GDP will be stored using the technology.

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⁵The Report on EBI 2017 analyzed more in detail the situation of the registration and use of the national domain ".vn" as well as other international domains.



Klaus Schwab – Chairman of WEF, appreciated the benefits of blockchain: "If, at the moment, blockchain technology records financial transactions made with digital currencies such as Bitcoin, it will in the future serve as a registrar for things as different as birth and dealth cirtificates, titles of ownership, marriage licences, educational degrees, insurance claims, medical procedures and votes – essentially any kind of transaction that can be expressed in code." Blockchain supports the popularization of smart contracts with the ability to operate without direct human intervention.

In the beginning of 2017, Havard Business Review commented that blockchain was a foundational technology that could lead to important changes in the social and economic systems. Nevertheless, like the TCP/TP technology and the development of Internet, it would take decades for blockchain to be used widely and make profound and total changes to the socio-economy. Notably, the research suggested one of the very first step to encourage organizations and enterprises to invest in blockchain was to use bitcoin as an additional payment tool, by that compel every functional departments such as IT, finance, accounting, sales, and marketing to learn and attain skills needed for familiarizing with the new technology⁷.

By the beginning of 2018, very few organizations and enterprises in Vietnam have researched and invested in blockchain application. For a particular application of blockchain, cryptocurrency, Vietnam's standpoint is basically prohibiting issuing, supplying and using instead of encouraging or experimenting.

Decision no. 101/2012/ND-CP on November 12, 2012 of the Government on non-cash payment stated that non-cash payments in transactions include cheques, payment orders, accreditatives, collection mandates, bank cards and other payment methods regulated by the State Bank of Vietnam, and emphasized that any other payment method is illegal⁸. The Decision also prohibited issuing, supplying and using illegal payment method. Individuals and organizations violating would get administrative sanctions⁹. Moreover, regulated by the Criminal Law, from January 1st, 2018 the activities of issuing, supplying, using illegal payment methods might be prosecuted for criminal liability¹⁰.

On October 31st, 2017, Hanoi Department of Industry and Trade sent Document no. 5530/SCT-QLTM to organizations and individuals operating in e-commerce in the

⁶ Cryptocurrency or digital currency

⁷ https://hbr.org/2017/01/the-truth-about-blockchain

⁸ Amended and supplemented by the Decision no. 80/2016/NĐ-CP on 01/7/2016.

⁹ Article 27.6.d Decision no. 96/2014/NĐ-CP on 17/10/2014 on administrative sanctions in currencry and banking.

 $^{^{10}}$ Article 206.1.h Criminal Law no. 100/2015/QH13 amended and supplemented pursuant to Art. 1.48 Law no. 12/2017/QH14



city, requiring not to use bitcoin and similar cryptocurrencies in e-commerce transaction payment.

Thus, the current legal system bans any activity of issuing, supplying and using illegal payment method. However, facing the growth of cryptocurrencies and waried of lagging behind in this field, on August 21st, 2017 the Prime Minister announced Decision no. 1255/QD-TTg on approving the Scheme of Completion of the Legal framework on management of virtual assets, digital currencies and virtual currencies¹¹. One of the goals of the Scheme was to propose objectives and guidelines for perfecting regulations on virtual assets, digital currencies, and virtual currencies along with controlling their risks, minimizing those risks while not affecting innovation and innovative startups, ensuring enough flexibility to match the constantly evolving information technology and e-commerce.

Two objectives in the Scheme that must be accomplished by August 2018 are: 1) reviewing, assessing the cryptocurrency, virtual property situation in Vietnam and researching, learning from international experiences; and 2) reviewing, researching and proposing amendment, supplementation, promulgation of legal documents about digital money. At the same time, by December 2018, the documentation of the proposal to build legal documents on virtual assets and virtual currencies must be finished. By December 2020, the Proposal to build the amended and supplemented regulation(s) on virtual assets and virtual currencies must be completed.

In contrast to prohibition of issuing, supplying and using cryptocurrencies, investment and use of these currencies are becoming difficult to control¹². Investment and trading activities characterized by speculation and fraud are quite dynamic, especially when prices of cryptocurrencies like bitcoin are skyrocketing. In the sole last two years of 2017, Vietnam had imported more than 5000 cryptocurrency miners from China¹³.

Vietnam needs to quickly promote research on and application of the blockchain technology, and at the same time should not manage virtual currencies simply by prohibiting, then punishing violations. In the interim period waiting for new legal documents following the Scheme, virtual currencies should be controlled by methods that go in line with market economy. For instance, we can consider cryptocurrency a type of virtual property under property regulations in the Civil Law and tightly control every investing and trading activity of cryptocurrenies, especially controlling by taxation.

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 $^{^{11} \}underline{\text{http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=2\&_page=1\&mode=detail\&document_id=190832}$

¹² "Chiêu trò huy động vốn từ tiền ảo Việt" (Fundraising tricks of Vietnam virtual currencies), Thanh Nien, December 7th, 2017, https://thanhnien.vn/kinh-doanh/chieu-tro-huy-dong-von-tu-tien-ao-viet-907265.html

¹³ http://ictnews.vn/cntt/cuoi-nam-may-dao-bitcoin-litecoin-tu-trung-quoc-o-at-do-ve-viet-nam-162910.ict



At the same time, accepting experimental use of cryptocurrency in a few international transactions might be a careful but advantageous approach for the policy amendment process¹⁴. If standing outside, organizations and enterprises may become too slow researching on and investing in blockchain applications, and Vietnam can be quickly left behind if cryptocurrency becomes a significant payment method for e-commerce.

4. Sharing economy: forward or backward?

The significant impact from the presence of passenger transportation service provider such as Uber and Grab has made the notion of sharing economy mentioned a lot in Vietnam in 2017. Sharing economy can be regarded as transaction processing with the help of digital platforms for profit or non-profit between individuals or organizations having available or excess resources (assets, commodities, services) and who demand those resources¹⁵. *In a narrow sense, sharing economy is limited in non-profit transaction between individuals and individuals*. Factors that motivate the development of sharing economy includes information technology, social networks, social commerce, and the urban lifestyle¹⁶. In the book "The Fourth Industrial Revolution" written by Klaus Schwab, he considered sharing economy one of the deep shifts of this time revolution¹⁷.

Like many other countries, Vietnam has troubles dealing with this new economic typology, particularly in governing activities of the two transportation service providers Uber and Grab.

Vietnam has shown its flexibility and support for the application of new technology in the passenger transportation field. On October 19 2015, the Prime Minister promulgated Document No. 1850/TTg-KTN on the experimentation of science and technology application on the form of contractual passenger transportation. Following that, on January 07, 2016, the Ministry of transport announced Decision no. 24/QD-BGTVT on the Plan to experiment technology application that supported management and connection of contractual passenger transportation activities. One of the general goals of the Plan was to meet the practical

¹⁵ For example, there is a survey showing that the average time a personal vehicle not used is up to 92%.

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 $^{^{14} \, \}underline{\text{https://tuoitre.vn/dh-fpt-chap-nhan-thu-hoc-phi-bang-bitcoin-} 20171026224058222.htm}$

¹⁶ Various facets of sharing economy are available at https://en.wikipedia.org/wiki/Sharing economy. In English, other than the terminology "sharing economy, some others are used namely shareconomy, collaborative consumption, collaborative economy, peer economy and uberization. There are viewpoints that see "sharing economy" not a correct phrase to describe this phenomenon. A more fitting one would be "access economy". Accessed on December 26th, 2017.

¹⁷ However, by the end of 2017 sharing economy had reached a plateau, many enterprises crashed, very few have profits and not really operating following the "sharing" economy model. <a href="http://ttvn.vn/kinh-doanh/sau-nhieu-nam-duoc-tung-ho-nhu-mot-hien-tuong-mang-tinh-cach-mang-nhung-gi-nen-kinh-te-chia-se-con-lai-bay-gio-la-cac-cong-ty-thua-lo-pha-san-va-vo-so-tranh-cai-khong-hoi-ket-52017251283745841.htm.



demand of the people on time and transaction cost saving, as well as the trend on using smart mobile devices. Other goals of the Plan were contribution to traffic order and safety, reduction of traffic accidents, reduction of urban congestions by limiting personal transportation means and optimizing the use of cars. Drivers who wanted to join the pilot program needed to meet all requirements regulated by law toward contractual passenger transportation. The experimental period was two years from 2016 January to 2018 January.

From the content of the Decision, it could be inferred that the Ministry of Transport tends to consider Grab or Uber technology providers of connecting services. The terminology "sharing economy" was not mentioned in this Decision.

The reality has shown that the business activities of GrabTaxi or Uber are far from the sharing economy model, especially in the narrow sense of this concept. Many drivers are professional ones and drive full-time. Some invest in vehicles to do business. Very few people combine their own trip with other passengers who have the same itinerary to minimize costs and raise social efficiency. With that reality, GrabTaxi and Uber can be regarded as enterprises providing taxi technology service (different from traditional taxis that apply technology low in scale and efficiency).

While the pilot program met the demand of the citizens on time and transaction cost savings, as well as went in line with the trend of using smart mobile devices, after two years, there has been no clear evidence of how the social goal of guaranteeing traffic safety, reducing traffic accidents and congestions is addressed¹⁸.

Box 1: Contractual passenger transportation and traffic jam

Ho Chi Minh City's Department of Transport said that the severe traffic jams situation in the area was caused by the number of under 9 seat autos transporting passengers (including Grab, Uber) is surging. This number has passed twice the number of taxis and broke the taxi planning of the city.

The average speed of the city centre area in December 2016 kept decreasing with respect to November. Specifically, in morning rush hours it was 19km/h (a 9.5% decrease), in afternoon rush hours it was 18km/h (a 5.2% decrease), in off-peak hours it was 20.9km/h.

https://news.zing.vn/uber-grab-va-taxi-xe-om-dau-truong-sinh-tu-post785513.html

Ho Chi Minh City was not an exception. In New York, the number of Uber vehicles escalated quickly and worsened the congestion situation. According to a transport analyst, Uber's business in this city had made the speed of Manhattan centre reduced by 8%. The number of vehicles operating under the sharing economy model had exceeded the number of traditional yellow taxis. The same situation happened in some other cities of the USA.

https://www.huffingtonpost.com/steven-hill/sharing-economy-american-workers b 9018724.html

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¹⁸ At the end of 2017, the number of Uber and Grab cars is about 50,000, nearly twice the number of taxis in Hanoi and HCMC http://cafef.vn/so-luong-xe-uber-va-grab-cham-muc-50000-chiec-gan-gap-doi-taxi-tai-ha-noi-va-tphcm-20171013103624032.chn.



Public administration bodies on transportation, competition, customer protection, labor, e-commerce and tax needs to define precisely the business model and business type of these transport companies to make suitable management policies on fair competition, tax collection, securing benefits for relating parties and reducing social conflicts¹⁹.

In December 2017, European Court of Justice (ECJ) made a decision to call the car booking technology company Uber (USA) a transport company, since the service it provided helped linking individuals with non-professional drivers. In Vietnam, e-commerce administration body (the Ministry of Industry and trade) seemed to advocate this classification when calling for treating software companies like Uber and Grab as transport service providers²⁰.

Box 2: EU considers Uber as a transportation company

European Court of Justice (ECJ) in Luxembourg on December 20^{th} decided to call the technology company Uber (USA) a transport enterprise, not a software platform, therefore, it must follow regulations for a transport company.

ECJ's ruling argued that the service that Uber was providing assisted to connect individuals with non-professional drivers in the scope of transport sector services. Hence, member countries of the European Union (EU) might control conditions for providing these services.

Stated by ECJ, an intermediary service with the purpose of connecting individuals having travel needs with non-professional drivers using their own vehicles with a paid mobile application needed to be regarded as closely relating to transport services and thus needed to be considered a service in the transportation sector.

http://www.thesaigontimes.vn/266700/Toa-an-chau-Au-ket-luan-Uber-la-cong-ty-van-tai.html.

Meanwhile, regulated by the pilot program of the Ministry of Transport, Uber and Grab can only provide services for transport enterprises/cooperatives, and we need to be careful calling Grab and Uber "service providers applying science and technology". Some media agencies call these companies technology applied taxis and suggest calling transportation enterprises/cooperatives online booking taxis²¹. To sum up, if the experimental regulations are correctly implemented, by the end of 2017, in Vietnam, businesses such as Uber and Grab are not really companies following the sharing economy model.

At the beginning of 2018, the Ministry of Transport submitted the Draft of the Decision substitutive for Decision No. 86/2014/NĐ-CP on running car transport

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¹⁹ Many socio-economic problems relating to sharing economy, especially in passenger transportation, have attracted attention from media agencies in the country. Notably is the resistance of traditional taxis and conflicts between traditional motorbike drivers and technology drivers. https://thanhnien.vn/the-gioi/thach-thuc-cho-kinh-te-chia-se-878730.html and https://thanhnien.vn/the-gioi/thach-thuc-cho-kinh-te-chia-se-878730.html.

https://www.tienphong.vn/kinh-te/bo-cong-thuong-de-nghi-sua-luat-coi-uber-grab-la-doanh-nghiep-van-tai-1202703.tpo. Accessed on December 27, 2017.

 $^{^{21} \ \}underline{\text{http://dantri.com.vn/kinh-doanh/tphcm-taxi-cong-nghe-len-ngoi-va-su-that-bai-cua-chuong-trinh-thi-diem-20171225144626103.htm}$



businesses and car transport market conditions. Under this draft, providers of applications connecting two sides of the transport e-contract are providers of technological solutions for transport enterprises/cooperatives to implement transport e-contracts with the service users. *Transport businesses must follow the contract and drivers are not allowed to collect individual passengers, or confirm bookings for individual passengers under any form.* If the Decision is passed, services of Uber or Grab in terms of car transport business do not match the sharing economy model in both wide and narrow senses^{22, 23}.

While sharing economy in passenger transportation is getting a lot of attention, the same model applied in the tourism area is not attracting as much concern from public administration bodies as well as the media.

The Law on Tourism No. 09/2017/QH14 which was passed by the Congress in June 2017 and effective from January 1, 2018 grant the Ministry of Culture, Sports and Tourism the mission to guide electronic transactions in the area of tourism. Nevertheless, there has been barely any policy or regulation promulgated on online tourism, including activities of online tourism service providers following the sharing economy model.

Box 3: Sharing economy in Tourism

According to the Executive Chairman of Grant Thornton, Mr. Kenneth Atkinson, there are about 6,500 Airbnb participants in Vietnam by June 2017. Cheaper price and adequate quality, Airbnb has been chosen by many people rather than traditional hotels.

Mr. Tony Chisholm – General Manager of Pullman Saigon Centre and hotels belonging to Accor Corporation in the Southern Vietnam area – says that in the past few years, serviced apartments for rent or rooms for rent on Airbnb in Vietnam are blooming and begin to gain market share with the traditional accommodation market. He considered it the reason why despite the notable increase of tourists to Vietnam in 2016, prices of 4-5 star hotels did not rise as much as they had done in 2014. Tony acknowledged the expansion of Airbnb had started to affect hotles' business.

Specially, the Accor system in the Australia and Thailand markets had to share the market and this phenomenon is spreading to Vietnam. The small and under 3-star hotels will be affected sooner because of the same customer segment.

https://tuoitre.vn/dich-vu-chia-se-phong-airbnb-lay-khach-cua-khach-san-1358899.htm

²² On Dec 29th 2017, the Ministry of Transport submited to the Prime Minister Document no. 14725 /TTr-BGTVT Draft of Decree substitutive for Decree no. 86/2014/ND-CP date October 9th 2014 of the Government on running business and business conditions of car transport business. http://mt.gov.vn/vn/Pages/chitietduthao.aspx?iDuThao=1035.

²³ The passenger and commodity transportation model by motorbikes of Uber and Grab may still be under sharing economy, but many issues relating to this model are more and more concerned about by relating parties. https://kinhdoanh.vnexpress.net/tin-tuc/doanh-nghiep/tai-xe-grabbike-lai-dinh-cong-vi-bi-tang-muc-chiet-khau-3697276.html



There has been no trustworthy statistics about the ratio of rooms being shared to the total number of accommodation hosts joining Airbnb, but it is probably not high. Therefore, just like Uber or Grab in the passenger transportation area, the business model of Airbnb in Vietnam has the tendency to be a digital platform that connects room suppliers with renters, in the same way the former connects Online Travel Agencies with hotels²⁴.

The existence of Airbnb and other similar companies in the field of tourism in Vietnam may have big impact on tourism in particular and the socio-economy in general no less than Uber and Grab²⁵. Although the newly issued Law on Tourism contains quite favorable regulations to encourage the sharing economy model in tourism and accommodation²⁶, public administration bodies on tourism, tax and digital economy until now seem to have no evaluation of the impact of online tourism/sharing economy on the field²⁷.

In the recent years, people often mention the benefits of sharing economy. But in Vietnam, businesses such as Uber, Grab and Airbnb have not yet fully operated following the model, and their influence on the socio-economy has not been thoroughly examined. Furthermore, there has not been any business nor organization whose operation based on the model in a narrow sense but able to incur large impact²⁸.

Vietnam needs to do research on the benefits of the sharing economy model and make appropriate policies to encourage enterprises as well as other organizations to provide services based on it, for the general purpose of raising socio-economic efficiency.

5. Tax administration in e-commerce: the first turning point

VECOM asserts that from 2016, Vietnam e-commerce shifted to the third phase with the fast and stable growth the key characteristic. In this period, online transactions will rise in both number and value. If in the previous phases, tax collection in the e-commerce sector had few practical meaning then in this phase, tax

²⁴ There have been startups that work similarly but in the high-end segment https://www.luxstay.net/vi/pages/about_us

²⁵ The authority of Seattle (Washington, Mỹ) is đang đẩy mạnh các quy định để siết chặt hoạt động của dịch vụ cho thuê nhà Airbnb. Chính quyền chi cho mỗi chủ kinh doanh được sử dụng thêm 1 căn nhà ngoại trừ căn nhà đang ở để hoạt động Airbnb. http://cafef.vn/sau-nhieu-nam-duoc-tung-ho-nhu-mot-hien-tuong-mang-tinh-cach-mang-nhung-gi-nen-kinh-te-chia-se-con-lai-bay-gio-la-cac-cong-ty-thua-lo-pha-san-va-vo-so-tranh-cai-khong-hoi-ket-20171225094442271.chn

²⁶ For example, according to Art. 48 of the amended Law on Tourism, tourism accommodation includes house that has rooms for tourists. The requirement to be a tour guide is also not high.

²⁷ Highest leaders of the tourism sector expressed challenges we needed to pass in order to keep growing. Online tourism and sharing economy are not in that list. http://baochinhphu.vn/Tin-noi-bat/Du-lich-Viet-2017-An-tuong-nhung-viec-con-nhieu/325704.vgp and http://cafef.vn/du-lich-viet-nam-2017-nhieu-dau-an-dac-biet-20171225151209568.chm

²⁸ Vice President Vu Duc Dam, in the meeting on December 26th, 2017 initiated a campaign aimed to students and elders to be volunteer tour guide. This is a good idea to exploit the benefits of sharing economy in tourism. http://baochinhphu.vn/Tin-noi-bat/Du-lich-Viet-2017-An-tuong-nhung-viec-con-nhieu/325704.vgp



administration in this field has important impact on development and at the same time brings fiscal revenue.

The scale of online transactions in the previous two phases was relatively small, and in that context the fact that tax collection was barely administered did have some benefits. First, online business took place freely and nearly never met any barrier in taxation, which encouraged many households and individuals to start and run their online businesses. They could induce small and very small enterprises, households and individuals to pay more attention to the online environment^{29, 30}. Second, the development of online commerce indirectly boosted non-cash payment. Third, online business required that the sellers attain skills different from traditional sellers, including building online branding and digital marketing.

By the end of 2017, two most notable issues in tax administration for e-commerce were tax collection from cross-border service providers and households, individuals who sell products on e-marketplaces, especially social networks³¹. The first problem was around how to collect taxes from contractors, the second problem was about how to detect the sellers, revenues and how to collect value-added tax (VAT) together with personal income tax.

In November 2017, the Ministry of Finance made public the draft of the Proposal to Government requesting to build the Law on Tax Administration (amended). From this Ministry's evaluation, despite being amended and supplemented three times, creating a precondition for electronic tax administration, the current Law on Tax Administration had not been able to assure legal basis for a full and widespread application. Thereby, it was necessary to amend the Law on Tax Administration with the purpose of generating a legal framework for large-scale application of electronic tax administration.

²⁹ Similar to the case of the online game developer Nguyen Ha Dong, individuals selling products on Facebook getting a revenue of hundreds of billions VND may become positive incentives for many to participate in e-business.

https://thanhnien.vn/kinh-doanh/he-lo-doanh-thu-khung-tu-ban-hang-qua-facebook-907972.html

 $[\]underline{\text{http://danviet.vn/kinh-te/thu-thue-kinh-doanh-qua-mang-xa-hoi-nhu-nguoi-mu-di-dem-830589.html}$

³⁰ The king of soccer Pele was awarded by the Brazilian Ministry of Education the Gold medal for the book "Pele: The Autobiography". Many illiterate Brazilians learnt how to read just to read the autobiography of the soccer legend. http://kenh14.vn/vua-bong-da-pele-tung-duoc-bo-giao-duc-trao-huan-chuong-vang-vi-mot-dong-gop-khong-tin-noi-20170526170909196.chn

In the same way, influences of successful online businessmen may be even larger than propaganda programs about the benefits of e-commerce held by public bodies.

³¹ Google and Facebook are two most mentioned cross-border online service providers. By taxation law, these two corporations have to pay Foreign Contractor Tax via their service users in Vietnam. Through verification at a bank, tax authorities found out that the toal transactions of individuals and organizations in Vietnam with Google in 2016 was 248,396 with the total transaction value of 222.4 billion VND. The number of transactions with Facebook was 175,391 with a total value of 450.4 billion VND. https://tuoitre.vn/he-lo-doanh-thu-khung-cua-google-facebook-tai-viet-nam-20171209115128652.htm

Nevertheless, some other cross-border service providers are less mentioned, to example online tourism service providers such as Booking.com and Agoda.com.



One of the suggestions in building the amended Law on Tax Administration was to reform administrative and tax administration procedures to be simple, clear, transparent, convenient, systematic, following international standards, and to implement electronic tax administration, creating favorable environment for tax payers to comply with tax regulations, pay the right amount at the right time to the National Budget.

The fundamental adjustment in the amended Law is a supplementation of a section about e-transactions in taxation, requiring tax authority to establish a "Center for data processing in e-transactions". This center is the place to receive, control tax documents (tax registration, declaration, payment, reimbursement, deduction, etc.), automatically check up and notify taxpayers.

In relation to tax administration in e-commerce, the Ministry of Finance said that the current tax administration method was not able to meet the requirement to fully and accurately manage this business type. The Draft suggested seven main solutions to address this issue. The first two underlined coordination between Ministry of Finance and other agencies, especially Ministry of Industry and Trade, Ministry of Information and Communications, and the State Bank³².

That the Ministry of Finance published the draft (to trinh de nghi xay dung) Law on Tax Administration (amended) was an important first step in tax administration for e-commerce. The draft demanded the amended Law to have effects from January 1, 2020 or from July 1, 2020. VECOM advises organizations and online business community to actively participate in and contribute to the draft. Some issues that need consideration:

1- Tax administration goes together with promoting e-commerce growth

The scale of online retailing in Vietnam is still very low. Estimated by Vietnam E-commerce and Digital Economy Agency, in 2016 revenue from online retailing was around 5 billion USD. Majority of this revenue came from online retail companies. The ones who were hard to collect taxes were households and individuals who sold online, but revenue coming from these subjects took up a not large proportion of the total online retail revenue.

Many argued that the solution of collecting VAT and personal income taxes of cross-border express delivery goods whose values of 1 million dong and above was not feasible. $\frac{\text{http://plo.vn/kinh-te/quan-ly-kinh-te/dung-dem-tung-don-hang-tren-facebook-de-thu-thue-738958.html}$

³² Right after the draft of the Proposal was announced, many viewpoints expressed that some solutions were not very feasible, including requiring cross-border service providers to declare, pay foreign contractor taxes and requiring cross-border services must be paid for using domestic payment channel (http://nld.com.vn/kinh-te/khong-kho-thu-thue-facebook-google-2017/100213657067 htm)



Until now, one of the biggest challenges of our e-commerce is the trust of consumers for online shopping. Encouraging any credible sellers to open business online will bring about more customers. Tax administration policies should not be about tax exploitation, but promotion of e-commerce growth to generate more revenue.

2- Tax administration must not impose greater hindrances than it does now

Vietnam has had no preferential policy for e-commerce. Therefore, slow implementation of tax collection in this field is an indirect incentive. However, despite this indirect favorable condition, the transaction scale is still small and no strong e-commerce enterprises have been established.

Tax administration in the field should not impose new barriers that hinder its development. Tax administration bodies cannot collect taxes from e-commerce with traditional solutions and tools. The supplemental section in the Law on Tax administration about e-transactions in taxation, including the requirement of a "center for data processing in e-transactions", is one of the necessary conditions in order to implement tax collection of online business. As long as this condition has not been satisfied, the activity should not be officially enforced nationwide.

3- Tax administration should consider the effective socio-economic outcome

It is necessary to thoroughly calculate the socio-economic effects of e-commerce tax collection. Costs of the collection activity must be considerably lower than the amount it collects. This is one significant criterion that needs mentioning³³.

4- Tax collection using non-cash payment

Online selling and purchasing not using cash is another necessary condition of tax administration. Any administrative approach to force transactions not to use cash is impossible. Non-cash payment can only be achieved when both sellers and buyers see it as more convenient and efficient than cash.

Thus, multi-sectoral cooperation to promote non-cash payment is essential to tax administration bodies. While the rate of cash on delivery (COD) is still high, tax collection of online transactions cannot be efficient.

5- Benefits of establishing a company compared to running individual and household businesses

³³ After several years charging fees on toll roads from two-wheel motorbikes, three-wheel motorbikes and vehicles alike, the Government promulgated Decree no. 28/2016/ND-CP date April 20th, 2016 deciding to eliminate the toll road fee for these means of transport from June 5th, 2016. According to the Ministry of Transport, the implementation process and applying method met many hindrances and limitations, making charging motorbikes inefficient and difficult. http://mt.gov.vn/vn/tintuc/42080/chinh-thuc-bo-thu-phi-duong-bo-voi-xe-mo-to-tu-5-6.aspx



Tax administration involving online business enterprises, although their rates of online payment are not high, is rather convenient and transparent. Solutions need to be implemented so that benefits of enterprise businessmen are significantly more than household and individual businessmen. When majority of products are sold by companies, the importance of household/individual tax collection will diminish;

6. The fourth industrial revolution: from will to action

In 2017, a number of events for introducing and searching opportunities from the Fourth Industrial Revolution (IR 4.0) took place in Vietnam. A remarkable one was on May 4, 2017 when the Prime Minister promulgated Directive no. 16/CT-TTg on raising ability to approach the Fourth Industrial Revolution. The Directive streesed the characteristic of this revolution "fully optimizing the spreading power of digitization and information technology"³⁴. Many seminars and big events introducing opportunities and challenges of IR 4.0 and digital economy were organized by ministries and departments.

Klaus Schwab emphasized that each nation's policy will determine whether that country grabs opportunities or lags behind in IR 4.0. He underlined "one thing is clear and of great importance: the countries and regions that succeed in establishing tomorrow's preferred international norms in the main categories and fields of the new digital economy [...] will reap considerable economic and financial benefits. In contrast, countries that promote their own norms and rules to give advantages to their domestic producers, while also blocking foreign competitors [...] risk becoming isolated from global norms, putting these nations at risk of becoming the laggards the new digital economy."

While Directive no. 16/CT-TTg underlined the importance of taking full advantage of new technologies, very few detailed solutions are implemented. Other than just discussing about the Fourth Industrial Revolution, Vietnam could start implementing policies that exploit technology platform in accordance with its own socio-economic condition, including sharing economy, blockchain technology and Internet of Things.

³⁴ Decree no. 98/2017/NĐ-CP on August 18th, 2017 of the Government on functions, duties, rights and organizational structure of the Ministry of Industry and Trade regulated the functions, managerial duty of public bodies over digital economy and established the E-commerce and Digital economy Agency (before E-commerce and Information technology Agency).





1. ENTERPRISES IN SURVEY

The survey was conducted from September to November 2017 at 4,147 enterprises in the whole country. Regarding the typeds of enterprises in survey, limited liability companies had the highest proportion (50%), 5% higher than 2016, followed by joint stock companies (29%), and private companies (11%). Large companies took up 10% of all enterprises in survey.

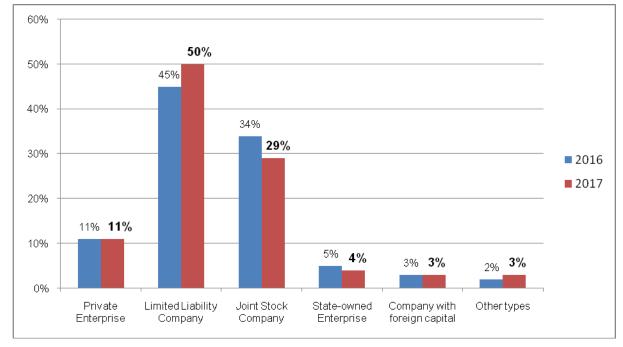


Figure 1: Types of enterprises in survey (2016-2017)

Enterprises in the field of wholesaling and retailing accounted for the highest proportion, 24%, of all participants. Next were manufacturing businesses (19%), and construction companies (18%).

2. INFRASTRUCTURE AND HUMAN RESOURCES

a. Electronic equipment

The proportion of enterprises located in provinces is higher than this rate of the previous years, therefore the proportion of enterprises equipped with PCs and laptops is 95% and lower than the previous years. However, the proportion of enterprises equipped with mobile devices (smart phones/tablets) almost remains unchanged and takes up 61%.

b. Use of email and supporting tools for work

In 2017, 40% of enterprises informed that over 50% of employees regularly used emails for work, which was lower than the rate of 46% for 2016. 22% of enterprises had under 10% employees regularly using emails.



In terms of the company scale, the proportion of Small and Medium-sized Enterprises (SME) with more than 50% workers using emails is higher than that of large enterprises.

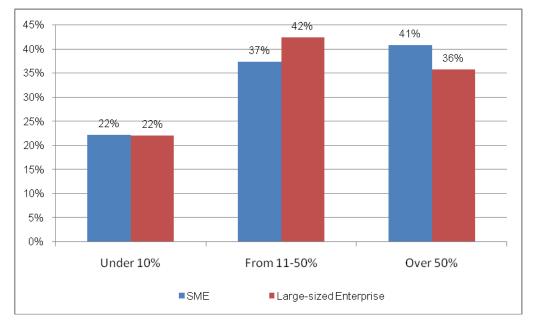


Figure 2: Use of emails in terms of company scale

The main purpose of using emails in enterprises was still for communicating with customers and providers (74%). Email-using pattern in companies' activities was similar to the previous two years'.

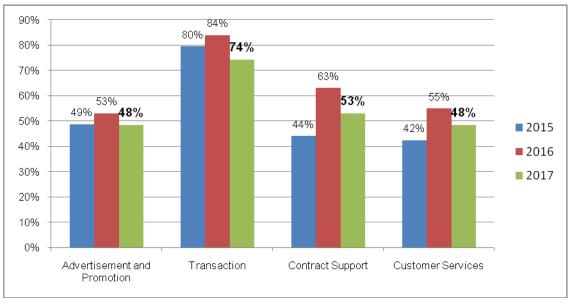


Figure 3: Purpose of using emails in enterprises over three years

Regarding other online tools supporting operation such as Viber, WhatsApp, Skype and Facebook messenger, the survey showed that 40% of enterprises have more than 50% employees using the above tools, 25% have 21%-50% employees using and 35% have 20% and below of all employees using these tools.



c. Employees specializing in e-commerce

From 2016, the survey focused on the workforce specializing in e-commerce. In 2017, 30% of enterprises informed to have specialized employees in e-commerce, a little lower than in 2016. Large enterprises have the proportion of employees specializing in e-commerce higher than SMEs.

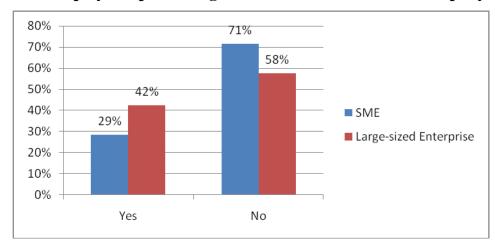


Figure 4: Employees specializing in e-commerce in terms of company scale

Businesses in information communication technology, finance and real estate have the highest proportion of employees specializing in e-commerce (each was 49% of surveyed companies). Entertainment companies followed (47%). In the construction sector, only 23% companies had specializing workforce in e-commerce.

The surveys over the years also showed that the proportion of enterprises that had difficulties in hiring workers skilled in information technology and e-commerce tends to rise, particularly in 2015 24% enterprises had difficulties, in 2016 the number was 29% and in 2017 up to 31% faced difficulties in hiring.

Skills in website and e-commerce transactions administration were the most wanted in enterprises: 46% of companies had challenges in hiring employees with these skills. Some numbers regarding other skills:

- Utilizing and using e-commerce application: 45%
- Setting up, using, fixing common computer problems: 42%
- Planning, implementing e-commerce projects: 42%
- Data system administration: 42%
- Online marketing: 35%
- Implementing online payment: 30%

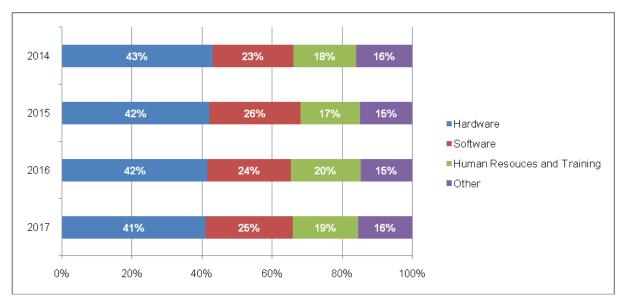
d. Costs of buying, equipping and applying Information technology and Ecommerce

Majority of enterprises in survey still invested the largest amount in hardware infrastructure: on average, businesses invested 41% in hardwares of the total expense



for buying, equipping and applying IT and e-commerce. This distribution of funds was similar to the previous years'. Next was the proportion of funds invested in softwares, ranging from 23% to 26%.

Figure 5: Costs of buying, equipping and applying Information technology and E-commerce 2014-2017





3. BUSINESS TO CONSUMER (B2C) E-COMMERCE TRANSACTIONS

a. Company websites

43% of enterprises in survey said to have built their websites, a number not too far from the previous years'.

47% 46% 45% 44% 43% 42% 41% 2013 2014 2015 2016 2017

Figure 6: Percentage of enterprises with a website, 2013-2017

Nevertheless, businesses had paid more attention to regular information updates on their websites. The survey showed that 49% of enterprises updated their websites everyday and 25% did that every week.

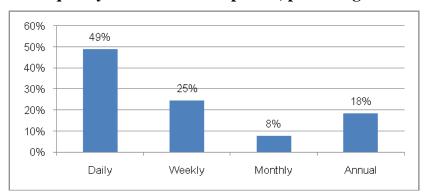


Figure 7: Frequency of information updates, percentage of enterprises

The ".VN" domain name was most chosen by businesses when creating a website (47%), followed by ".COM" (42%). Other international domains had a much lower rate of use.

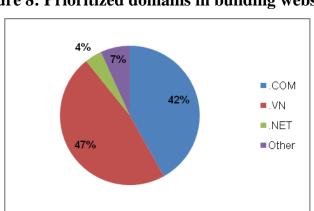


Figure 8: Prioritized domains in building websites



b. Doing business on social networks

Doing business on social networks is a hot trend that is attracting attention from enterprises, especially SMEs, individual and household businesses in the recent years.

The survey showed that 32% of enterprises are running business on social networks.

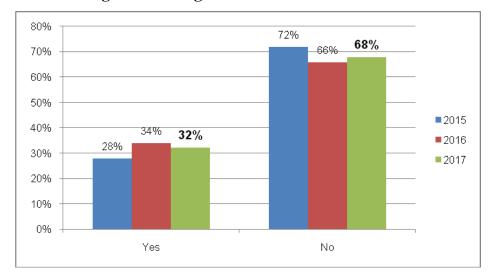


Figure 9: Doing business on social networks

c. Participation in e-commerce marketplaces

Beside social network, e-commerce marketplace is another useful tool for SMEs, but the trend to use it has no sign of change in the last few years. In 2017, 11% of enterprises in survey partipipated in e-marketplaces, slightly declined compared to 2016.

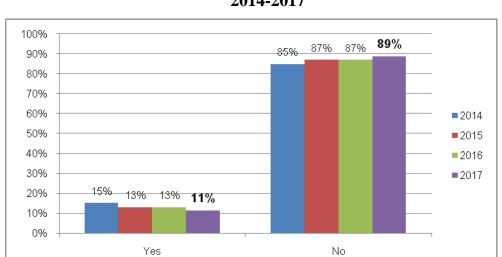


Figure 10: Percentage of enterprises participating in e-commerce marketplaces, 2014-2017



d. Doing business on mobile platform

2015 marked the explosion of the mobile commerce trend. Along with the development of mobile infrastructure, companies had further invested in business operations on this new platform, from upgrading websites compatible with mobile devices to developing applications.

This trend, however, seemed to slowdown since the proportion of websites compatible with mobile devices did not rise. It looks like many companies are not seeing the benefits of this platform, and the demand to purchase on mobile platform is only relevant to developed cities such as Hanoi and Ho Chi Minh City. In Vietnam overall, the development levels are not high and uniform.

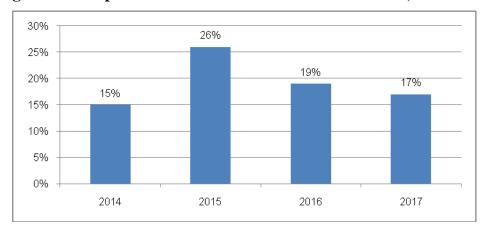


Figure 11: Proportion of websites with a mobile version, 2014-2017

Similarly, the proportion of enterprises having an application for selling in 2017 was 15%, equal to that 2016.

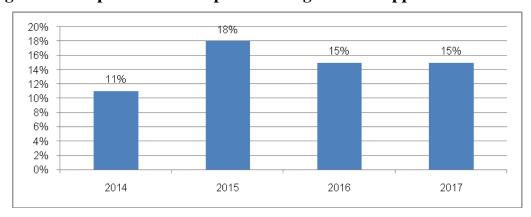


Figure 12: Proportion of enterprises having a mobile application for selling

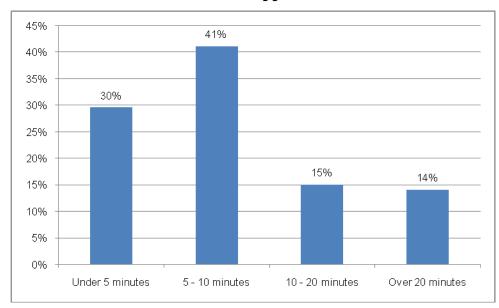
Android platform was still the most popular choice for businesses to develop their mobile applications (71%), after was iOS (43%) and Windows (40%). These statistics did not change much from 2016 as well.

Also, according to the survey, the average time-on-site of customers on the mobile version of e-commerce websites or applications for selling is not high. 41% of



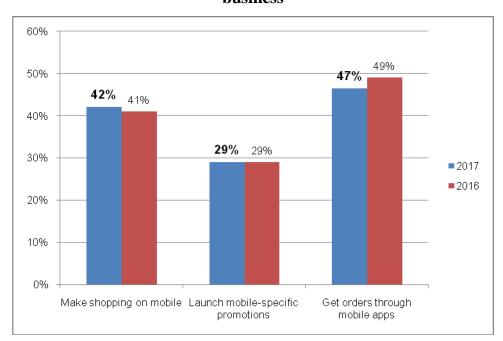
enterprises having websites revealed that their customers' average time-on-site was 5-10 minutes, for 30% of enterprises the number was under 5 minutes and the percentage with above 10 minutes of time-on-site was very low.

Figure 13: Average time-on-site of customers on the mobile versions of websites or mobile apps



Of the enterprises having a mobile website or mobile app, 42% allowed buyers to conduct all steps of the purchasing process, 29% initiated promotion programs for customers buying products with mobile devices, and 47% accepted orders via mobile applications. These numbers were mostly unchanged with respect to 2016.

Figure 14: Percentage of enterprises with a mobile application to support business





e. Forms of advertising on websites and mobile applications

In 2017, the most used form of adversising was still social networks (43%). Advertising via search tools took up 31%, considerably lower than 2016. 2017 also marked the fierce growth of businesses providing affiliate marketing services.

Besides, the proportion of unadvertised enterprises rose compared to 2016. The reason might be that this year, the portion of surveyed enterprises located in provinces was higher than that located in big cities (Hanoi, HCMC).

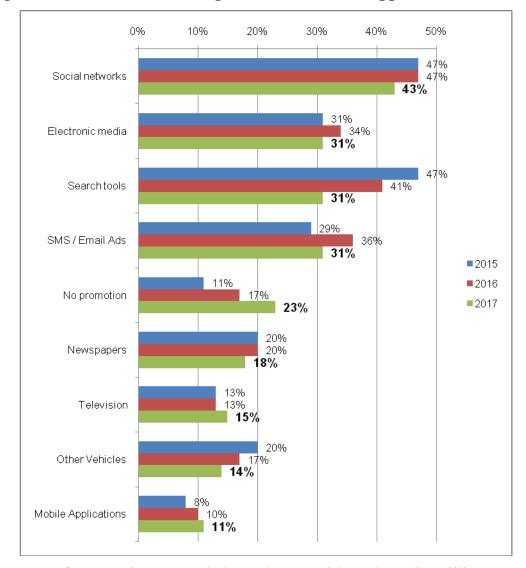


Figure 15: Forms of advertising on websites/mobile applications, 2015-2017

56% of enterprises revealed to have paid under 10 million VND for website/mobile app advertising, 36% paid 10-50 million VND and only 8% paid more than 50 million VND for advertising on websites/mobile apps.

In the five municipalities, Ho Chi Minh City and Hanoi continued to be two areas with the highest proportion of enterprises paying more than 50 million VND for online advertising, 14% and 12% respectively.



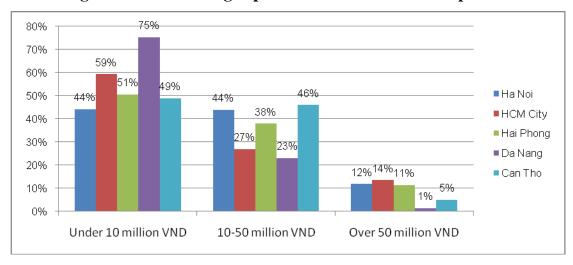


Figure 16: Advertising expenditure of the five municipalities

Social networks and search tools were the two forms of advertising that brought the highest effectiveness for businesses, 46% and 39% respectively.

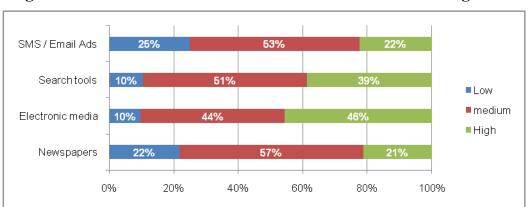


Figure 17: Evaluation of the effectiveness of online advertising forms

In general, results from the social network advertising channel did not change in the past two years, but the results achieved by search tools tended to go down

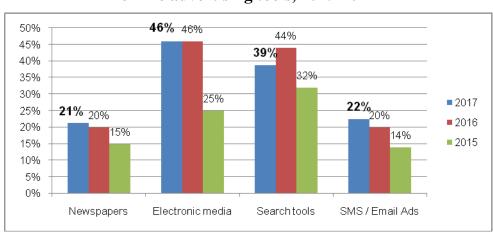


Figure 18: Proportion of enterprises which highly value the effectiveness of online advertising tools, 2015-2017



4. BUSINESS TO BUSINESS (B2B) E-COMMERCE TRANSACTIONS

a. Use of management softwares

85% of enterprises in survey declared to be using financial accounting softwares, which was also the most used software group in. Next were human resource management softwares, used by 53% of enterprises.

There were relatively few companies using softwares that were complex in applying such as ones in customer relation management (CRM), supply chain management (SCM), and enterprise resource planning (ERP). The trend to use these softwares had no sign of changing with respect to the previous years.

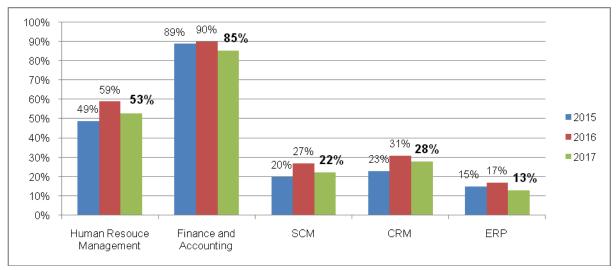


Figure 19: Use of management softwares, 2015-2017

In the group of large companies, 94% had used financial accounting softwares, 83% had used human resource management softwares. Generally, the proportion of large enterprises that used specialized softwares was higher than that of SMEs.

It can be seen that the gap in software use between large and SMEs was relatively high, especially in the use of ERP (a three-fold difference).

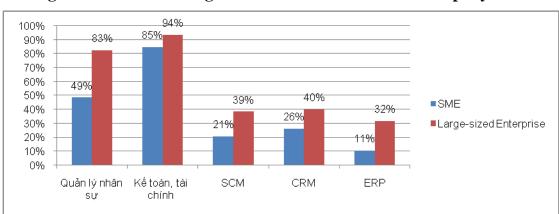


Figure 20: Use of management softwares in terms of company scale



b. Use of e-signatures and e-contracts

In 2017, 60% of enterprises in survey said to be using electronic signatures. This rate remained nearly unchanged compared to the years before.

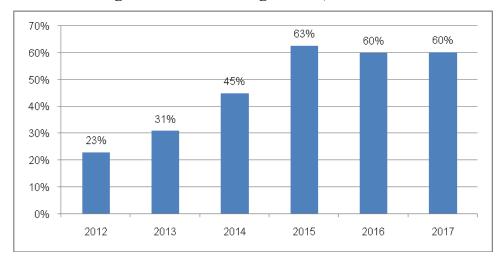


Figure 21: Use of E-signatures, 2012-2017

Since 2016, the use of electronic contracts has been added to the survey form. In 2017, 28% enterprises used e-contracts, marginally lower than 31% of 2016.

c. Receiving orders and ordering using online tools

Email was still the channel which enterprises mainly received orders among all online tools. In 2017, 79% of surveyed enterprises received orders by email, a 6% down from 2016. Two other channels which were websites and e-commerce marketplaces got a much lower rate, both under 50%.

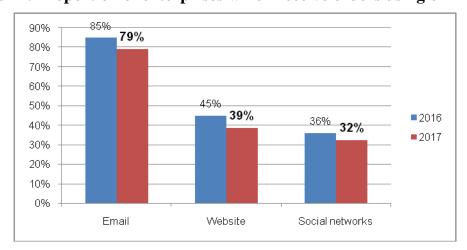


Figure 22: Proportion of enterprises which receive orders using online tools

Quite similar to the receiving order methods, order activities of companies with their partners on online channels were mainly conducted by emails (79%), websites (41%), and marketplaces as well as social networks (29%). The rate of contracting via



online tools decreased, reflecting a higher proportion of surveyed enterprises which located in the provinces than that of last years.

84% 90% **79**% 80% 70% 60% 46<u>%</u> 50% 41% 2016 40% ^{32%} 29% **2017** 30% 20% 10% 0% Email Website Social networks

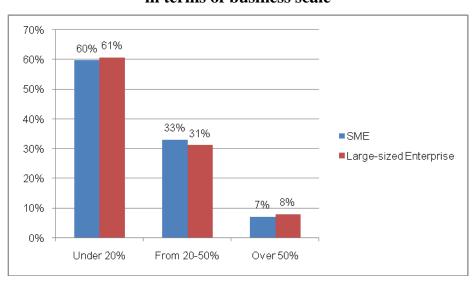
Figure 23: Proportion of enterprises that order with online tools, 2016-2017

d. Rate of investment, construction and running websites/mobile apps

The survey on the rate of investment, construction and running websites/applications over the total investment in e-commerce showed that most enterprises did not pay much attention to this section. Particularly, 60% of the enterprises in survey paid under 20% of the total investment in e-commerce to invest, build and run their websites and/or mobile applications, and 33% invested from 20-50%. These rates were mostly consistent with 2016.

There was no significant difference between large enterprises and SMEs in the portion of investment which went to building and operating websites and/or mobile applications.

Figure 24: Rate of investment, construction and running websites/mobile applications (over the total investment in e-commerce)



in terms of business scale



e. Evaluation of effectiveness of business using online tools

Up to 39% of enterprises in survey highly evaluated the effectiveness of online selling on social networks, the highest of all online tools. The second place belonged to companies' websites (35%).

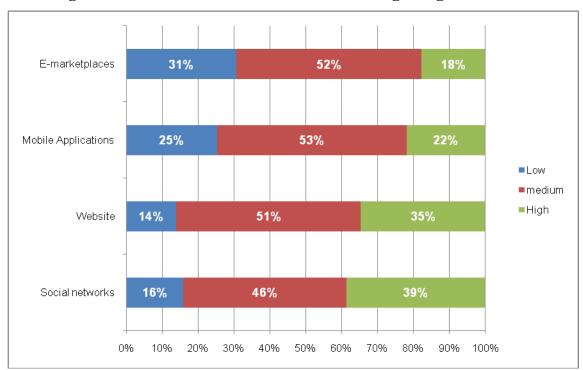


Figure 25: Evaluation of effectiveness of selling using online tools



5. GOVERNMENT TO BUSINESS (G2B) TRANSACTIONS

a. Information lookup on government websites

The rate of enterprises who regularly looked up information on government websites in 2017 was 30%. Overall, this rate over the last few years did not change much. There were still 8% of enterprises having never looked up information on government websites.

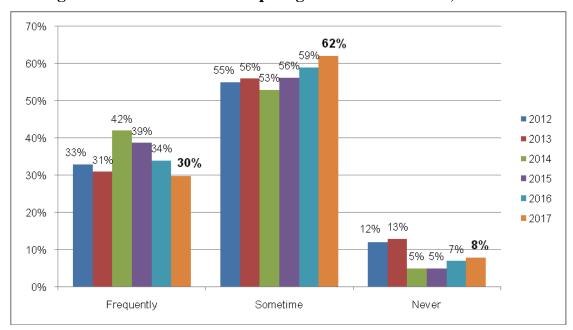
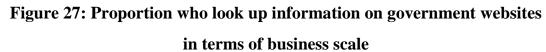
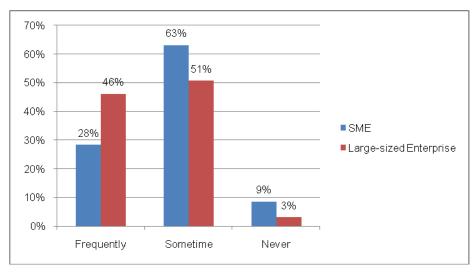


Figure 26: Information lookup on government websites, 2012-2017

The large enterprises group had a higher level of attention for information on government websites than the SME group. While 46% of the former regularly looked up information, only 28% of the latter did.







b. Use of online public services

The rate of using online public services relating to the declaration, registration and licensing procedures of enterprises was 73% in 2017, on the same trend as 2016.

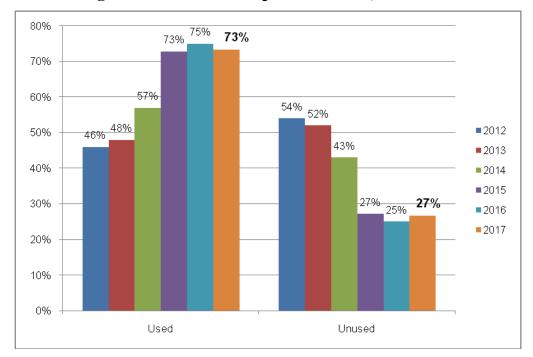


Figure 28: Use of online public services, 2012-2017

Electronic tax declaration was still the most used online public service (88%), followed by business registration (42%). Other services such as customs declaration and licensing of the certificate of origin had lower rates of use, possibly because the rate of provincial enterprises in the survey rose this year.

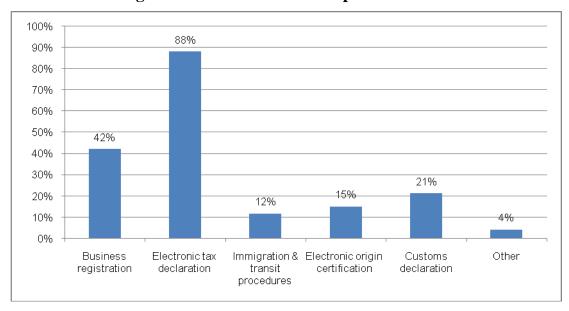


Figure 29: Use of some online public services



c. Benefits of online public services

In 2017, 52% of surveyed enterprises evaluated online public services as very useful, which was not too different from 2015 and 2016. However, in the last 5 years, the trend is going up.

From enterprises' evaluation, it can be concluded that online public services in general and business environments for enterprises are being more and more transparent and favorable. The effective application of online public service tools helped businesses to save considerably labor costs, time as well as other non-official expenses.

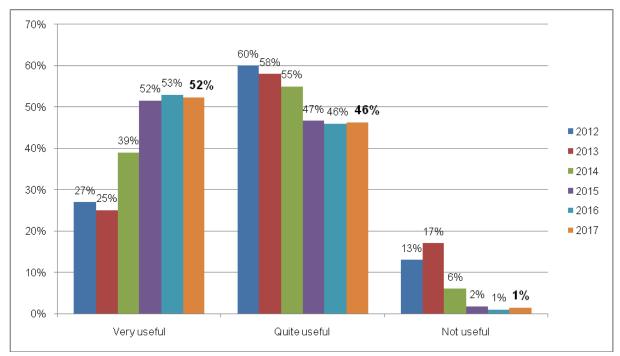


Figure 30: Benefits of online public service tools, 2012-2017





1. HUMAN RESOURCES AND INFORMATION TECHNOLOGY INFRASTRUCTURE INDEX³⁵

The information communication technology in Vietnam has served relatively well for the online business demand. Nonetheless, human resources to implement e-commerce has not catched up with that demand.

In the three-year period 2012-2014, the human resources and information technology infrastructure (HR&IT) index was calculated based on criteria such as how current human resources met the need to implement IT and e-commerce of enterprises, the recruitment of skilled labor in IT and e-commerce, the proportion of specialized workfore in IT and e-commerce, the rate of employees who regularly used emails, and other criteria on computer equipment and investment on IT and e-commerce. These criteria were put together for calculation based on the survey of enterprises.

On the other hand, VECOM evaluated highly the role of domain names on e-commerce. Thus, to better match the development reality of e-commerce, since 2015 statistics on the national domain ".VN" has been added to calculate the HR&IT index.

The truth was that Hanoi and HCMC had always had a big difference in numbers as well as the average ratio of domains with other provinces.

Table 1: Gap in distribution of ".VN" domain by municipalities and population

Highest					Lowest			
No	Province	No. of ".vn" domains	People /1 ''.vn'' domain	No	Province	No. of ".vn" domains	People /1 ''.vn'' domain	
1	Ho Chi Minh	159379	52	1	Son La	247	4891	
2	Hanoi	154221	48	2	Hau Giang	240	3219	
3	Da Nang	7685	136	3	Kon Tum	237	2143	
4	Binh Duong	5783	345	4	Dak Nong	210	2883	
5	Dong Nai	5447	544	5	Bac Lieu	205	4323	
6	Hai Phong	5415	366	6	Dien Bien	190	2934	
7	Khanh Hoa	3398	357	7	Ha Giang	153	5334	
8	Thanh Hoa	3324	1061	8	Cao Bang	119	4452	
9	Nghe An	3072	1011	9	Bac Kan	108	2954	
10	Ba Ria – Vung Tau	2853	383	10	Lai Chau	90	4844	

Source: 2017 Report on Vietnam Internet Resources; Vietnam Internet Network Information Center (VNNIC)

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³⁵9 unranked provinces: Cao Bang, Dien Bien, Ha Giang, Lai Chau, Son La, Bac Lieu, Ca Mau, Hau Giang and Soc Trang.



Tho two cities with the highest number of domains in 2017 were Ho Chi Minh City and Hanoi, the same two cities with the lowest population/1 domain ratio (52 and 48, respectively). The third place went to Da Nang, but there was a big difference with the first two areas.

In the group of slow developing localities, Lai Chau continued to be the area with the lowest number of domains and population/1 domain ratio: 90 domains and 4,844 people/1 domain name (in 2016, Lai Chau had 60 domains and 7,085 people/1 domain name).

Domain name has an important meaning to the application of e-commerce in each enterprise as well as in each locality. Since 2016, VECOM has paid more attention to raising awareness about domain registration for provinces. This is also the determining condition for the goal of an e-commerce website for each enterprise. Specially, from 2018, VECOM will implement activities to raise awareness of enterprises about the role of domain name on their branding in the online environment.

The 2017 HR&IT index of each province was built from these components: 1) population/1 domain ratio; 2) the level of computer equipment and smart mobile devices; 3) proportion of workers regularly using emails in work; 4) proportion of workers regularly using Viber, WhatsApp, Skype, Facebook Messenger; and 5) specialized workforce in e-commerce. These criteria were the same to 2016 to have a baseline to compare growth.

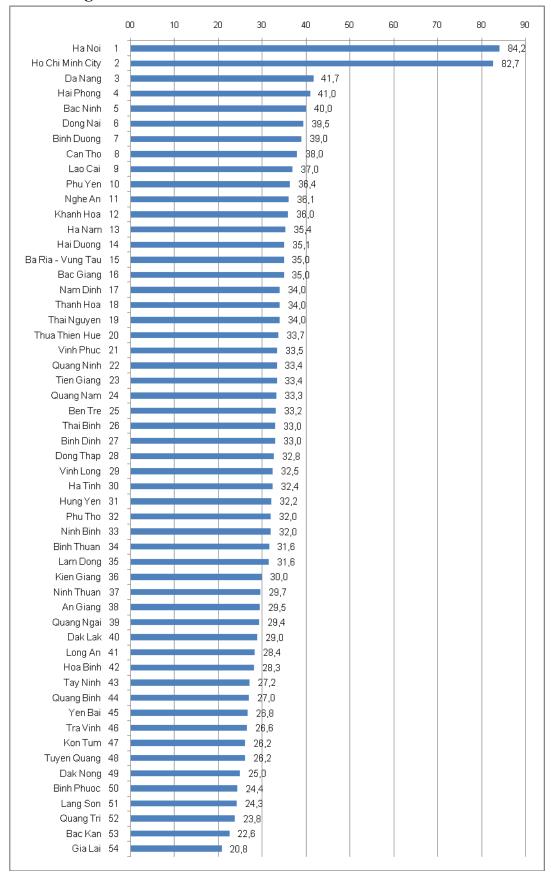
Hanoi was the city with the highest HR&IT component index (84.2 points), after by Ho Chi Minh City with 82.7 points the HR&IT component index.

From the third place Da Nang onwards, HR&IT component index points decreased dramatically. Da Nang got 41.7 points, Hai Phong got 41 and Bac Ninh got 40 points.

The average index point of the total 54 areas in the survey was very low at 33.8 points. There was a big gap in the average point between the top 5 areas and the bottom 5 ones (57.9 and 23.2 points). Thee bottom 5 included Binh Phuoc (24.4), Lang Son (24.3), Quang Tri (23.8), Bac Kan (22.6), and Gia Lai (20.8).



Figure 31: Human Resources & IT Infrastructure Index





2. BUSINESS TO CONSUMER (B2C) TRANSACTIONS INDEX 36

Regarding the component index for B2C transactions, in 2017 constitution of this index was still based on the same criteria as of 2016: 1) building corporate websites; 2) frequency of information updates on websites; 3) selling products on social networks; 4) participation in e-marketplaces; 5) website mobile version; 6) applications to sell products on mobile devices; 7) allowing customers to do the whole purchasing process on mobile devices; 8) receiving orders situation; 9) website/mobile app advertising; 10) revenues from online channels; and 11) per-capita income.

Although the growth rate of the sector is high, the online retail market size is still very small compared with the total retail market size. VECOM also realized a correlation between per-capita income of consumers and their purchasing decisions as well as the value of their online orders. Therefore, since 2016, per-capita income was added into the B2C index.

According to the General Statistics Office, 5 municipalities with the highest monthly per-capita income in 2016 were: Ho Chi Minh City (5,481,000 VND), Binh Duong (5,306,000 VND), Hanoi (5,057,000 VND), Hai Phong (5,614,000 VND), and Dong Nai (4,414,000 VND).

Table 2: Monthly per-capita income, 2016

Provinces with the highest monthly per-capita income in 2016			Provinces with the lowest monthly per- capita income in 2016			
No.	Province	Per-capita income (thousands dong)	No.	Province	Per-capita income (thousands dong)	
1	Ho Chi Minh City	5481	1	Nghe An	1818	
2	Binh Duong	5306	2	Yen Bai	1802	
3	Ha Noi	5057	3	Tuyen Quang	1757	
4	Hai Phong	4614	4	Lang Son	1684	
5	Dong Nai	4414	5	Cao Bang	1640	
6	Ba Ria – Vung Tau	4382	6	Bac Kan	1404	
7	Da Nang	4369	7	Ha Giang	1326	
8	Bac Ninh	4346	8	Lai Chau	1314	
9	Quang Ninh	3791	9	Son La	1290	
10	Tay Ninh	3383	10	Dien Bien	1222	

Source: Statistical Yearbook 2016, General Statistics Office

 $^{^{36}}$ 9 unranked provinces are Cao Bang, Đien Bien, Ha Giang, Lai Chau, Son La, Bac Lieu, Ca Mau, Hau Giang và Soc Trang.



Five localities with the lowest monthly per-capita income in 2016 were Bac Kan, Ha Giang, Lai Chau, Son La and Dien Bien. The difference between the highest and lowest per-capita income was four-fold.

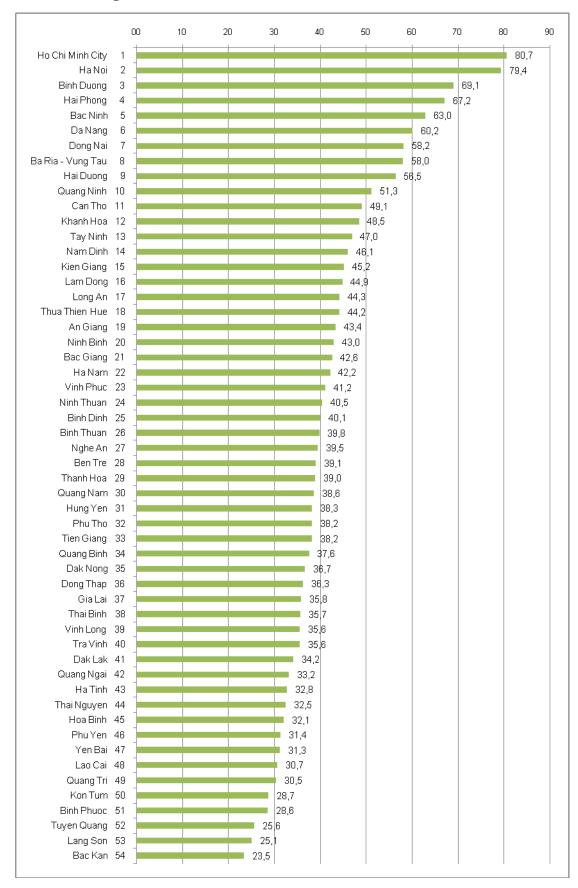
Ho Chi Minh City led the B2C component index in 2017 with 80.7 points. Following was Hanoi (79.4), Binh Duong (69.1), Hai Phong (67.2) and Bac Ninh (63.0). Dissimilar to HR&IT component index, in B2C transactions index, the differences among top 5 leading cities/provinces were not too big.

Five localities with the lowest B2C transactions indexes were Kon Tum (28.7 points), Binh Phuoc (28.6), Tuyen Quang (25.6), Lang Son (25.1), and Bac Kan (23.5). The gap between the top and the bottom cities/provinces in the ranking was a remarkable 57.2 points.

The average B2C transactions index of the whole country was 42.4 points. The average among the top 5 was 71.9 points, meanwhile the average of the bottom 5 was 26.3 points.



Figure 32: Business to Consumer Transactions index





3. BUSINESS TO BUSINESS TRANSACTIONS INDEX 37

B2B transactions index reflects the activeness of enterprises in the receiving orders and ordering activities with partners, at the same time indicates the ability to apply information communication technology (ICT) in supporting operation, parner and customer relation management, supply chain management, etc. of enterprises.

In 2017, the B2B transactions index continued to take into account the number of enterprises and population of each province. The population/1 enterprise ratio helps to reflect objectively the economically and commercially active level of the locality.

Hence, the 2017 B2B transaction component index used the following criteria: 1) use of softwares in enterprises; 2) use of e-signatures; 3) use of e-contracts; 4) reception of orders via online tools; 5) ordering via online tools; 6) rate of investment, building and running websites/mobile apps; and 7) population/1 enterprise ratio.

According to statistics from the General Statistics Office, Ho Chi Minh City and Hanoi were two areas with the highest population/1 enterprise ratio, 56 and 71 respectively. We can see that the enterprise density in these two areas are quite high.

Highest Lowest Number Number People/1 People/1 of of No **Province** enterpris No **Province** enterpris enterpris enterpris e es 1 Ho Chi Minh City 148886 1 Cao Bang 681 56 778 2 103659 2 Dong Thap 2160 Ha Noi 71 781 11514 Bac Giang 3 Da Nang 91 3 2043 811 Binh Duong 13245 4 1591 Soc Trang 151 825 Ba Ria – Vung 5 6790 5 1228 Tau 161 Tra Vinh 847 9789 6 6 Hai Phong Lang Son 851 202 903 Tuyen 7 7 5085 819 Khanh Hoa 239 Quang 936 8 Bac Ninh 4492 8 Bac Lieu 868 262 1021

Table 3: Population/1 enterprise ratio, 2015

Source: 2016 Statistical Yearbook, General Statistics Office

4649

4413

9

10

Can Tho

Quang Ning

The group with the population/1 enterprise ratio of more than 1000 were Bac Lieu (1,021), Son La (1,075) and Ha Giang (1,118). There was a high correlation between the population/1 enterprise ratio and the population/1 national domain ratio.

271

277

9

10

Son La

Ha Giang

49

1075

1118

1124

730

³⁷9 unranked provinces are Cao Bang, Đien Bien, Ha Giang, Lai Chau, Son La, Bac Lieu, Ca Mau, Hau Giang và Soc Trang.



In terms of the B2B transactions index, Ho Chi Minh City got the highest score (83.1). Hanoi followed (78.6), and then Da Nang (49.9), Hai Phong (45.1) and Vinh Phuc (37.2).

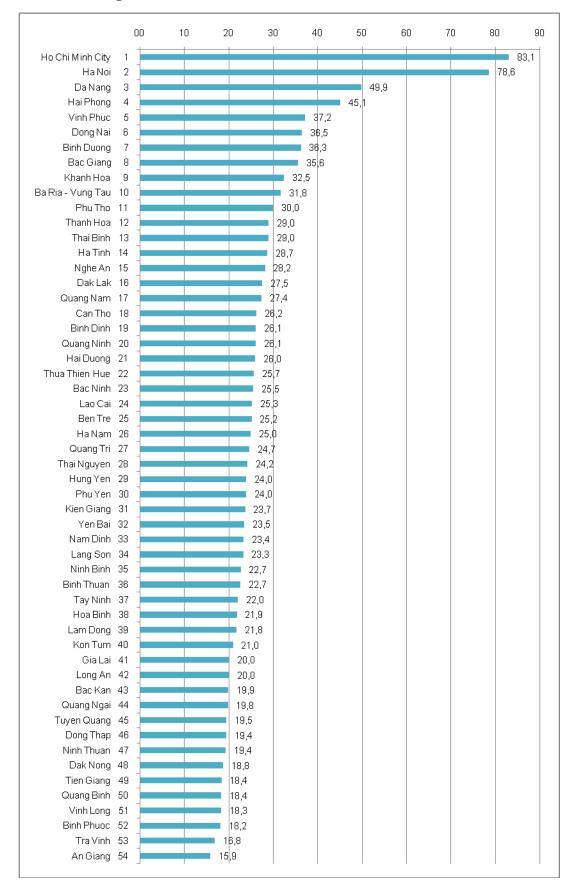
Among provinces with the lowest B2B transactions indexes, An Giang was at the last place (15.9 points), Tra Vinh got a slightly higher score (16.8), and then Binh Phuoc (18.2 points).

The gap between Hanoi and Ho Chi Minh City, which are the two economic centers of Vietnam, and the third place Da Nang was relatively big. Ho Chi Minh City's B2B score was significantly 67 points higher than the last place An Giang's.

The average B2B transactions index score in the whole country was 27.5 points. The average of the highest five localities was 58.8 points, while the average of the lowest five localities was 17.5 points.



Figure 33: Business to Business Transactions Index





4. GOVERNMENT TO BUSINESS TRANSACTIONS INDEX (G2B)³⁸

The Government to Business (G2B) transactions index is one of the four component index of EBI. This component index reflects the transparency of information of local authorities to enterprises, as well as the intensity and effectiveness of online public services to business operation of enterprises.

In comparison with the previous years, the G2B transactions index remained rather stable. In 2017, the calculation of this index relied on 4 factors: 1) degree of information look-up on websites of public agencies; 2) the degree of use of online public service tools such as registration, licensing & declaration service provided on government websites; 3) rate of online public service tools use; and 4) enterprises' evaluation on online public services' benefits at the local scale.

The 2017 G2B transactions had an average score of 63.2, a little higher than the score of 62.9 of 2016. The average score of the five leading localities was 75.8, of the last five places was 46.2.

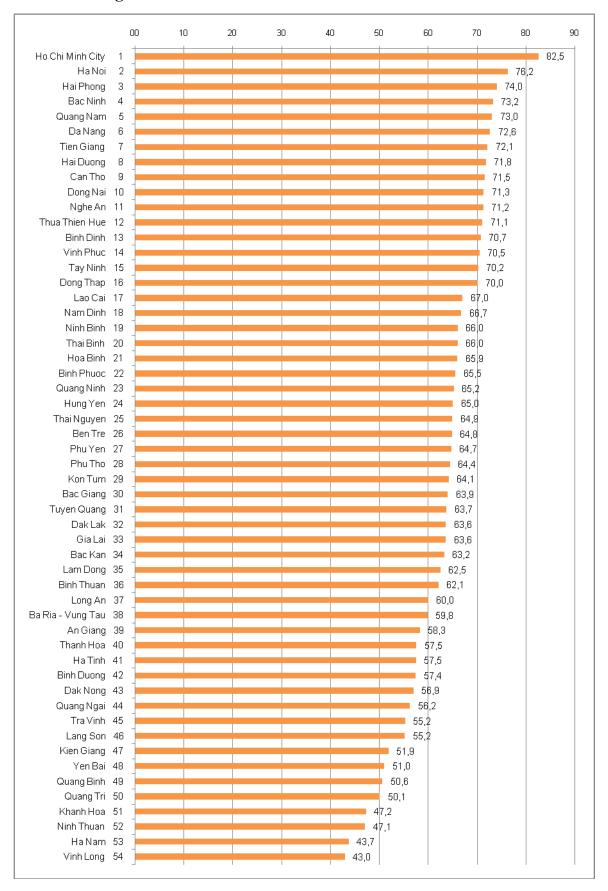
Particularly, 2017 saw the rise of the G2B transactions indexes of Ho Chi Minh City (82.5 points, first place) and Hanoi (76.2 points, second place). However, the difference in localities' G2B score whose consecutive rankings was not considerable.

-

³⁸ 9 unranked provinces are Cao Bang, Đien Bien, Ha Giang, Lai Chau, Son La, Bac Lieu, Ca Mau, Hau Giang và Soc Trang.



Figure 34: Government to Business Transactions Index





5. E-BUSINESS INDEX BY PROVINCE³⁹

E-Business Index by province was composed from four component indexes, each with a weight. The weights for 2018 slightly changed in comparison with 2017, more focused on two pillars B2C and B2B. The addition of calculation factors such as the domain name ratio or per-capita income has better reflected the development reality of e-commerce at each province.

Five leading localities in EBI has the following composition of the four components:

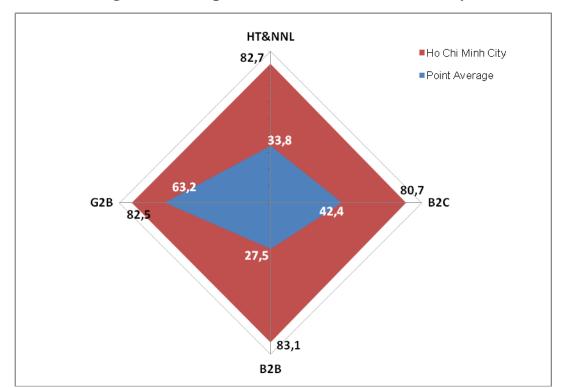


Figure 35: Component Indexes, Ho Chi Minh City

Ho Chi Minh City continued to be the leading city in E-Business Index with a composite score of 82.1, 3.5 higher than the previous year. The chart presenting component indexes of HCMC showed a clear distinction with the country average level, especially two indexes HR&IT and B2B transactions. This difference is not a new phenomenon and consistent with the years before.

Hanoi took the second place with a composite score of 79.8, 4 points higher than 2017.

³⁹ 9 unranked provinces are Cao Bang, Đien Bien, Ha Giang, Lai Chau, Son La, Bac Lieu, Ca Mau, Hau Giang và Soc Trang.

VECOM

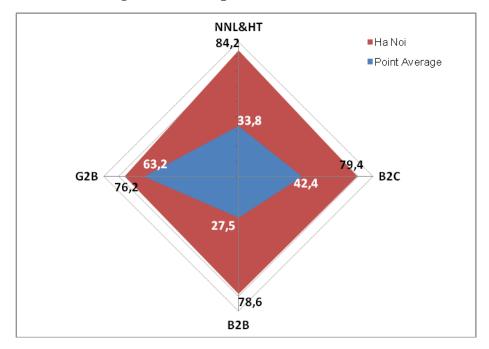


Figure 36: Component Indexes, Hanoi

Notably, Hai Phong rose to the third position in the EBI ranking, after were Da Nang and Binh Duong. Despite being in the same top 5 leading areas in e-business, the distance between Ho Chi Minh City, Hanoi and the rest three localities was big. The discrepancy between Hanoi (2nd place) and Hai Phong (3rd place) was 24.9 points already.

This year, Hai Phong achieved a score of 54.9, a 12.7 increase from last year. It is also the city with the highest rise in EBI in the whole country.

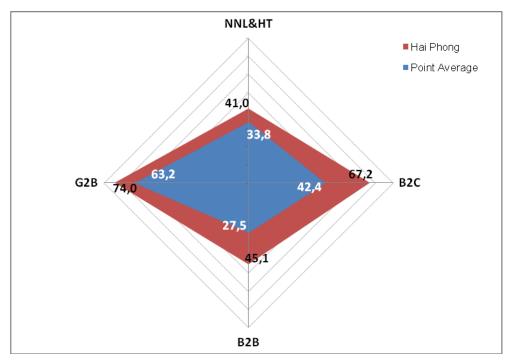


Figure 37: Component Indexes, Hai Phong



The fourth position belonged to Da Nang with 54.1 scores. This city saw a strong growth in B2C transactions, possibly because of the important contribution of the tourism service field.

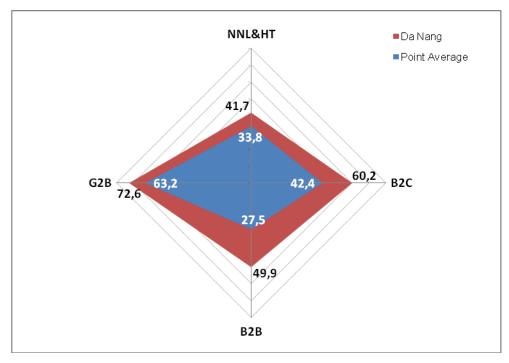


Figure 38: Component Indexes, Da Nang

Binh Duong stood at the fifth place with a score of 50.4, a 7.4-point increase with respect to 2017.

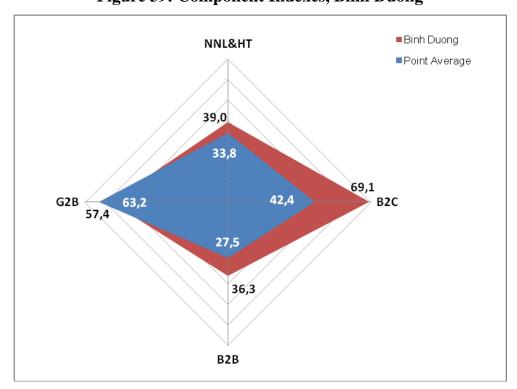


Figure 39: Component Indexes, Binh Duong



The variety between Ho Chi Minh City (the first) and Bac Kan (the last) was up to 56.1 points.

The average EBI for 2018 is 37.5 points. The disparity between the average of the top 5 localities (64.3) and the bottom 5 localities (27.5) is 36.7 points, which is larger than the 36-point distance of 2017, 31-point distance of 2015, 20-point distance of 2014, and the 18-point distance of 2013. The big discrepancy in e-commerce development among provinces can be seen clearly.

Although in 2017 there have been many initiatives from public administration bodies, organizations and enterprises to shorten the development gap in e-commerce between the two big economic centers and other provinces, the result is not yet noteworthy. Shortening the digital gap remains a big challenge for Vietnam.



Figure 40: 2018 E-Business Index

