

## The Impact of FDI on the Labor Market: The Case of ASEAN

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### **Abstract:**

*The objective of the paper is to analyze the current situation in ASEAN countries, the impact of foreign direct investment (FDI) on the labor markets of ASEAN countries. We analyzed the impact of FDI on labor costs, labor demand, labor productivity, and the labor environment. On that basis, we make recommendations to help countries effectively attract FDI inflows.*

**Keywords:** foreign direct investment, labor markets, ASEAN

### **1. Introduction**

Today, in countries with transitional economies, including Vietnam, in parallel with the expansion of business freedom, the development of commodity and service market and securities market, labor market is also being formed.

Economic development is an indispensable goal of all countries to improve the quality of life of the people. In order to develop economically, especially in the market economy, it is necessary to develop different types of markets, as the market is the living environment of the commodity economy. The labor market is formed and developed in the market economy. It has relationship with other types of markets: capital market, science and technology market, information market, monetary market, etc..The labor market displays the relations between the employee and the employer, on the principle of agreement through employment.

FDI has always played a strategic role in the economic growth of ASEAN and in many other economic cooperation regions around the world. FDI is seen as an important channel for obtaining employment opportunities, human capital development, higher wages, technology transfer, and infrastructure improvement. In other words, FDI is often seen as a vehicle for an increase in productivity and efficiency, and consequently as a driver for economic growth. FDI is likely to have direct and indirect effects on host economies. Increasing capital formation, employment and trade is the direct effects of FDI, whereas receiving a beneficial transfer of know-how and technology, and management skills from home country responds to indirect effects of FDI. With the advantages of cheap labor and capital resources of member countries, ASEAN has built an attractive business environment for multinational corporations seeking profits through the implementation of different channels of FDI. With aforementioned advantages as well as drawbacks of labor market, ASEAN countries need to work closely to reduce transaction costs, strengthen FDI promotion policies and harmonious development of the economy among member countries in order to utilize FDI inflow.

This article analyzes the real situation of the impact of FDI on the labor markets of ASEAN countries in recent years.

### **2. Literature review**

Many studies confirm that FDI has more or less a positive impact on employment. Lukáš B (2007) indicates that multi-national enterprises (MNEs) increase wages as well as productivity through spillovers in domestic firms. Surprisingly productivity grew faster than wages and thus did not cause unemployment. MNEs helps to create efficient jobs opportunities, reallocate resources from the less to higher productive and thus enhanced total employment. When comparing domestic companies with foreign companies, the author finds that MNEs produce with increasing external returns to scale, whereas domestic firms produce with decreasing

external returns to scale, but with increasing internal returns to scale. Importantly, employees in foreign companies have higher productivities and are paid more. They are usually bigger and employ more people per company comparing with domestic firms. Karlsson et al. (2009) use FDI data on various manufacturing companies in China between 1998 and 2004 to assess the impact of FDI on employment and come to conclusion that FDI enterprises have high employment growth. High employment growth in foreign companies is due to the favorable characteristics of this business, such as capital intensive and high productivity. More recently, Poole (2013) provides evidence of positive spillovers of FDI in Brazil by using matched employer–employee data to show that as workers migrate from multinational to domestic firms there is an increase in the wages of even domestic workers at incumbent firms. Further, the transfer of technology is greater the higher the skill level of the worker migrating from the multinational and the higher the skill level of the worker at the incumbent firm. Average wages for incumbent workers at the domestic firm increase as the share of workers from multinationals increase at the domestic firm. David M (2015) indicates that FDI has a positive and significant effect on employment implying that an increase in the inflow of FDI is associated with higher employment. Thus, Sub-Saharan African governments should strongly consider poverty alleviation and employment policies that encourage and direct FDI to the industries where it can significantly reduce unemployment. David uses a panel data set for 48 Sub-Saharan African countries for the period ranging from 1991 - 2011. Furthermore, he uses the Ordinary Least Square (OLS) regression estimator, and finds that FDI has the expected sign and significance in all specifications for both the general and youth population, which implies increasing inflow of the FDI to Sub-Saharan African countries, is associated with increase in employment ratio. The expected linkages between FDI and labor productivity of domestic enterprises are one of the main reasons many countries attract investment from multinational companies. Increased labor productivity can lead to an increase in wages, jobs and growth. Some previous studies have investigated the relationship between FDI and productivity, suggesting that there is a positive relationship. Research by Blalock & Gertler (2008) found that FDI helps increase productivity and increase efficiency among companies.

However, in other research, the findings are worth considering. Regarding the relationship between FDI and wage inequality, the study by Velde & Morrissey (2002) found no strong evidence that FDI reduced wage inequality in some East Asian countries during the period 1985 - 1998. Although FDI increases wages for both skilled and low skilled workers, this study shows that FDI has increased wage inequality in Thailand. Jenkins's study (2006) examines the impact of FDI on employment in Viet Nam in the 1990s that, despite the rapid growth of FDI in these years, direct employment creation is very limited. Most of Vietnam's labor force continues to work in the agricultural and service sectors such as wholesale and retail and transport industries. Even the expansion of foreign companies' investment in the early years of the 21<sup>st</sup> century into labor-intensive industries did not have a significant impact on employment due to the high productivity and low added value of many of these investments. Foreign investors in Vietnam have created very limited links with local businesses and imported most of their inputs. Domestic enterprises that are under pressure to improve labor productivity to enhance their competitiveness with foreign enterprises have led to a trend of reducing jobs. Anh (2006) shows that the productivity of Vietnamese enterprises has changed thanks to the appearance of FDI enterprises, through positive spillover effects on components such as firm size, quality of labor, capital intensity. However, the study shows that Vietnam's low labor level is a factor hindering the positive impact of FDI on labor productivity. At the enterprise level, a low level of labor will limit the ability to acquire and transfer technology. Thus, if there is a shortage of workers who meet a certain level, the dissemination of technology will be difficult or will not happen. Besides, a large gap in technology and labor productivity is also making it difficult to move skilled labor between FDI enterprises and domestic enterprises.

### **3. Research results**

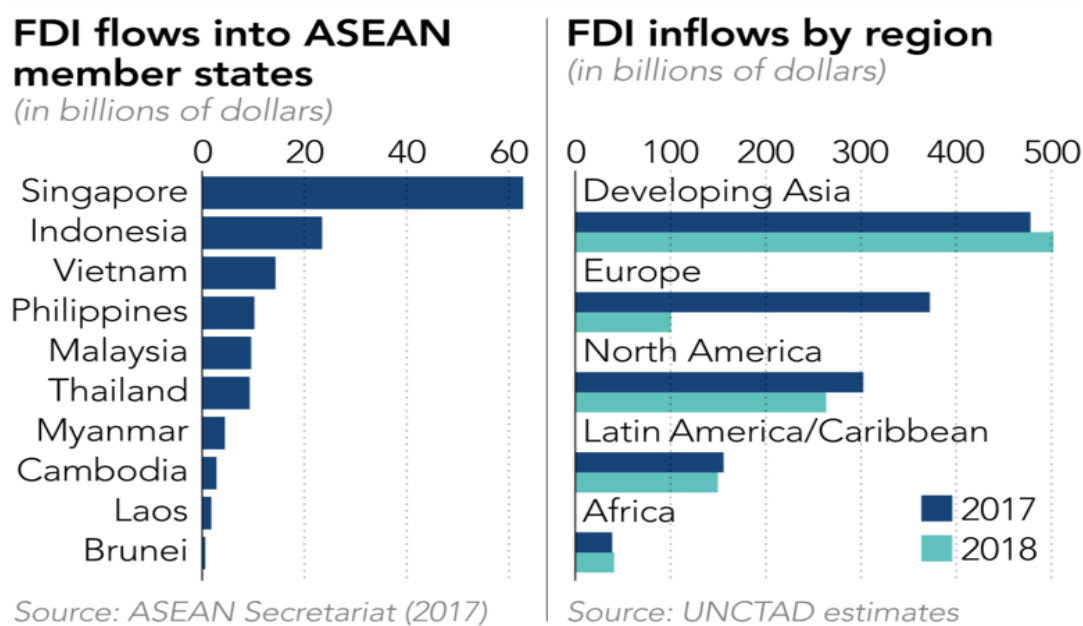
#### **3.1. The context of ASEAN**

After 51 years of establishment, cooperation and continuous development, ASEAN consists of 10 members in Southeast Asia, the third largest market in Asia with over 620 million people, accounting for 8.59%

of total population. GDP per capita reached US\$ 4,305, which is expected to double by 2030, making ASEAN the seventh-largest economic community in the world, with a combined GDP of US\$ 2,766 billion.

ASEAN has become the world's largest FDI attraction with US\$ 136.2 billion, marking the third consecutive increase of FDI. In 2013, for the first time, ASEAN exceeds China in terms of attracting FDI (US\$ 128.4 billion versus US\$ 117.6 billion). FDI continued to grow in 2014-2015. This is a very impressive figure given the decline in global investment by 16% in 2014. Improving the regional investment environment as well as the process of integration towards the forthcoming AEC has contributed to ASEAN's attraction to FDI inflow.

According to the Ministry of Industry and Trade of Viet Nam, ASEAN has become an attractive destination for foreign investment, with FDI inflow in 2017 reaching US\$ 137 billion compared with US\$ 22 billion in 2000 and US\$ 1/3 billion in 1967. Intra-regional investment also rose to a record US\$ 24 billion in 2016, accounting for a quarter of FDI inflow into the region, increasing from 5.6% to 24.7% in 2016. Services sector accounted for the largest proportion of FDI in ASEAN, up from 50.8% in 1999 to 80.8% in 2016, followed by industry, energy and agriculture.



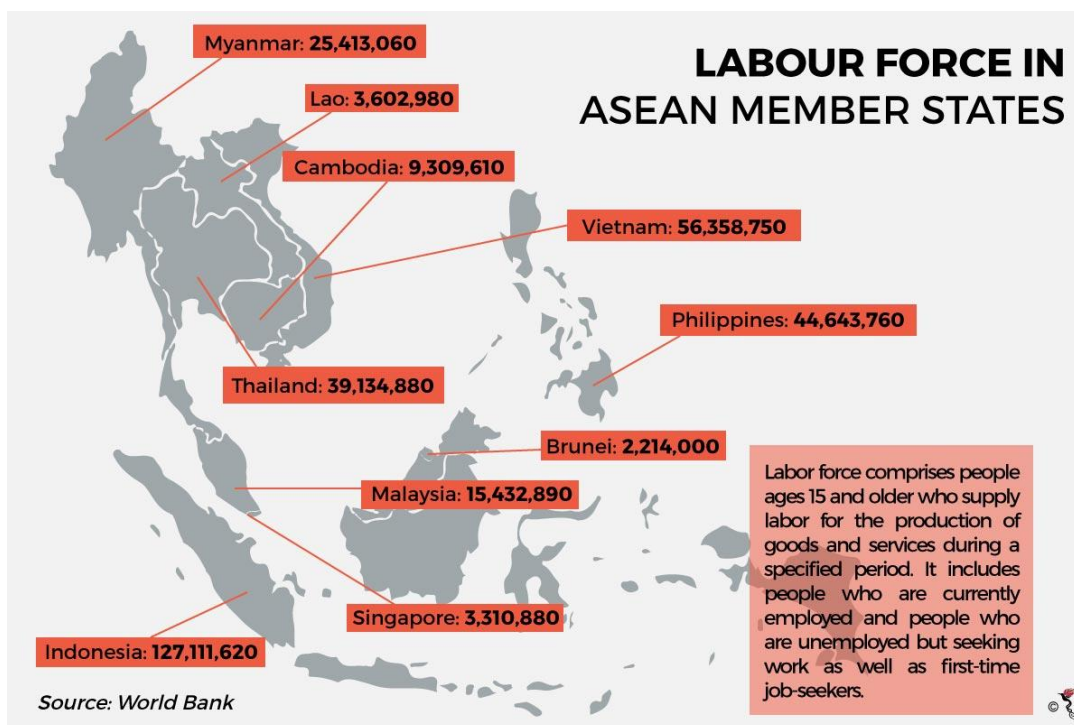
**Figure 1. FDI flows into ASEAN member states in 2017**

Source: ASEAN Secretariat (2017) UNCTAD estimates

### 3.2. Current situation of the labor market of ASEAN countries

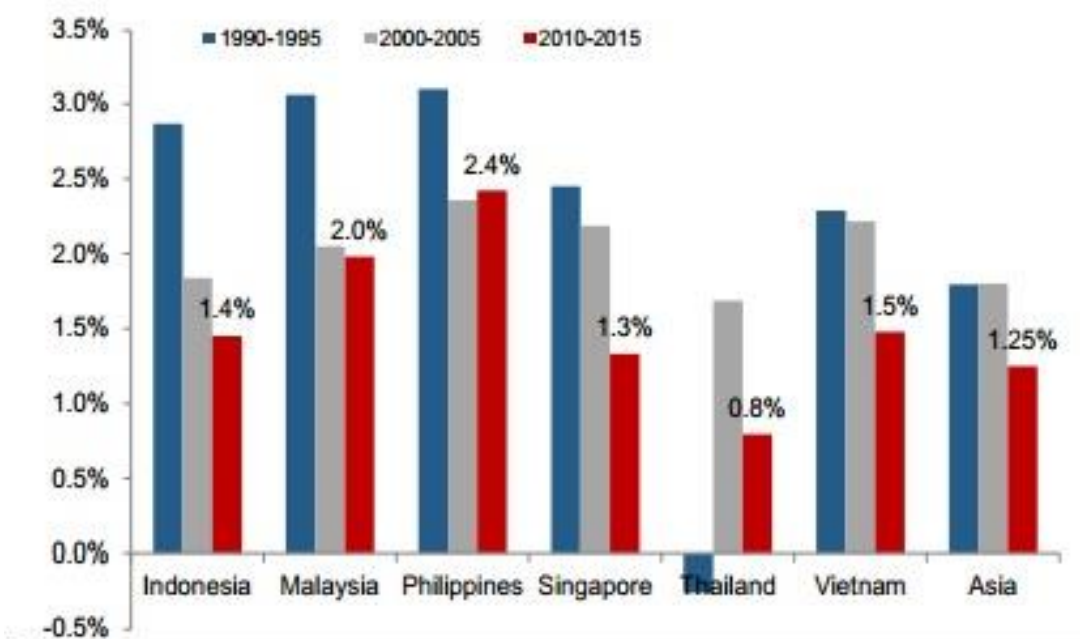
#### 3.2.1. Abundant and young labor force

Economic growth of ASEAN is impressive, with an average annual real growth rate slightly higher than 5%. Along with a young population – where 60% are below the age of 30 – this translates to an immense potential in labor. The association has the third largest labor force in the world behind China and India. Current World Bank estimates place ASEAN's labor force at 350.5 million. In order to make full use of the wealth of labor, ASEAN member countries must do more to realize its economic ambitions.



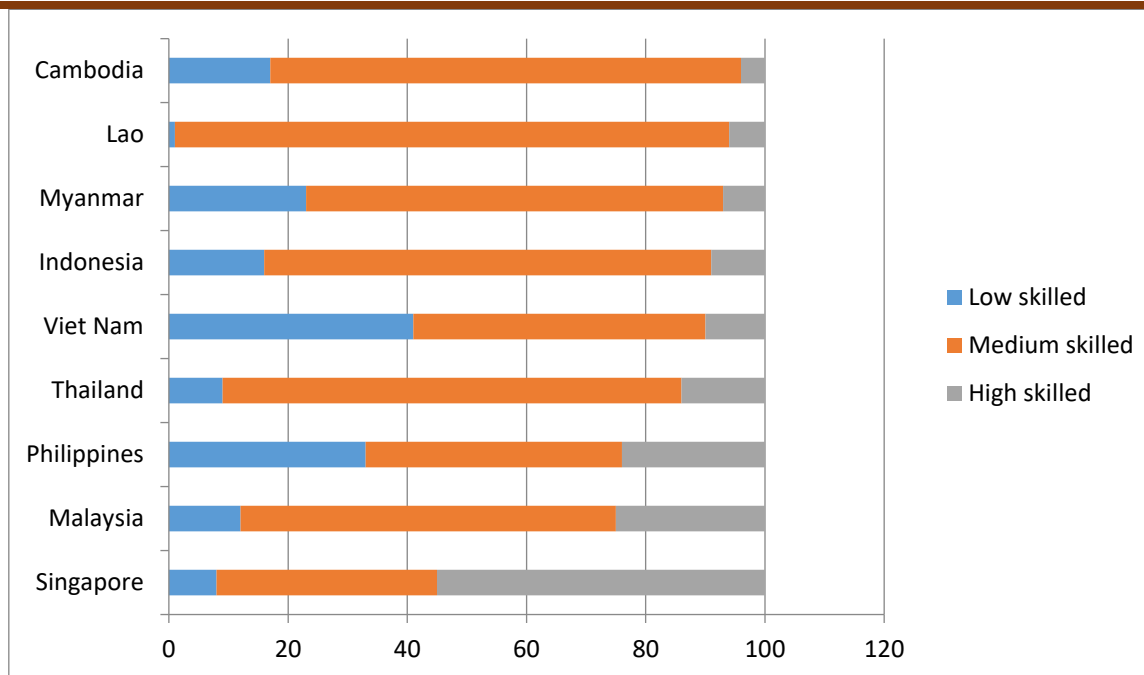
**Figure 2. Labor force in ASEAN member states in 2017**

*Source: World Bank*



**Figure 3. Labor force growth**

*Source: ILO, Credit Suisse*



**Figure 4. Employment share of ASEAN in 2017**

*Source: WEF, 2018*

### **3.2.2. Lack of skilled workers**

In a commentary published by the S. Rajaratnam School of International Studies, Senior Analyst with the Centre for Multilateralism Studies (CMS), Phidel Vineles (2010), argues that the region – especially the ASEAN-5 (Singapore, Malaysia, Thailand, Indonesia, and the Philippines) – lacks industry-ready skilled workers in spite of its vibrant demography.

In Singapore, Vineles cites the nation's dependence on foreign workers and a lack of innovation in the Singaporean education system as primary challenges to its labor force. Malaysia and Thailand face similar challenges in equipping their respective workforces with engineering and science skills. Besides that, Indonesia and the Philippines have high youth unemployment rates due to a workforce that is ill-equipped with skills and knowledge needed by key industries. Brunei, which is moving away from oil dependence to a knowledge-based economy, is finding it difficult to equip its labor force with necessary research and development skills. CLMV (Cambodia, Lao, Myanmar and Vietnam) economies broadly lack coherent technical education which is necessary for industrial development.

### **3.2.3. Facing a lot of difficulties**

Other problems that labor market of ASEAN countries is facing are as follows.

Firstly, the mechanisms, policies and laws of each country are not consistent with the general agreement of ASEAN. In spite of the mutual recognition agreement, the provisions of this agreement are not uniform and have not received the consent of all member countries, which makes it difficult to obtain visas for skilled workers when moving to another country. Therefore, the workers who want to move smoothly should refer to the bilateral agreements of the member countries.

Secondly, the skilled labor force of the member countries is very scarce, which in turn leads to the limitation of skilled migrants to ASEAN member countries. Fierce competition among countries to recruit skilled labor comes as a result.

Thirdly, the level and quality of labor among ASEAN member countries are different. Obviously, a graduate student in Singapore will certainly be more highly qualified than a college graduate in Vietnam. Because of the difference in the level, the labor productivity of each country will be different. This would be a very difficult barrier for skilled workers in countries of lower qualification and productivity who want to move to a member country that is considered to have a quality workforce with higher productivity.

Fourth, language proficiency is also a difficult challenge for the labor force. Workers tend to move to countries with cultural or linguistic similarities rather than to a country with many differences. Therefore, the desire to attract high quality workers is also greatly limited by this factor.

### **3.3. Effects of FDI on the labor market of ASEAN countries**

FDI expands the production set of the economy toward more sophisticated goods or introduces more advanced technology, thereby increasing the demand for skilled labor. This results in higher overall labor demand, higher wages for skilled labor, leading to a higher skill premium and increased average wages, and higher labor productivity. These effects are especially large in countries where skilled labor is scarce and the technological gap is substantial.

Overall, it appears, FDI has positive effects on host countries' labor market. Wages increase and so do productivity and the skill level of the labor force. Even though some lower-skilled workers may experience adverse effects and some domestic firms may suffer competition pressure in terms of the availability of skilled labor, most of the literature suggests that labor conditions improve because of FDI. The increase in inequality that results from disproportional growth of demand for skilled labor may induce the labor force to seek education and training.

The majority of positive effects observed are direct effects on target firms. As the managers of these firms take into account these effects for their business planning, no government intervention is needed to obtain the optimal amount of FDI. On the other hand, some labor productivity spillovers and higher wages are observed in domestic firms. If these spillovers are driven by actual productivity improvements in domestic firms, they might justify policies that encourage foreign investments. However, if these developments are due to increased pressure on the labor market, leading to the loss of skilled labor by domestic firms, barriers to FDI might be justified.

When it comes to labor market, income inequality is usually another major concern. As the literature shows, FDI increases this inequality. The mechanism by which FDI affects inequality, however, has to do with other shortcomings in the host country that could be addressed directly and don't justify restrictions on FDI. If there is a shortage of skilled labor and FDI generates a surplus of unskilled labor, investment in training programs and advanced education might be more effective.

#### **3.3.1. Effects of FDI on labor cost**

Wage is considered to be an important part of labor cost. In this paper, other components would be temporarily excluded. FDI does create more jobs for workers in Laos, Indonesia and Viet Nam but does not bring the workers much better income. As more FDI enterprises join domestic market, the demand for workers rises. In fact, a huge number of workers in these countries left domestic enterprises for FDI enterprises dreaming of better life with higher income. In ASEAN, foreign invested enterprises mainly focus on manual labor because the supply of labor is excessive. The supply exceeds the demand. Therefore, they do not seem to "worry" when workers quit. Higher income is a trick to attract workers whose understanding, vision is quite limited. Thus, labor cost is relatively cheaper since it does not take much time, effort for the employers to recruit staff, especially low-skilled workers.

| Minimum Wage in ASEAN           |                         |                            |                          |                           |                                            |
|---------------------------------|-------------------------|----------------------------|--------------------------|---------------------------|--------------------------------------------|
| Country/Region*                 | Daily Minimum Wage      |                            | Monthly Minimum Wage     |                           | Exchange rate<br>(value of 1<br>US dollar) |
|                                 | Local<br>currency       | In US dollars              | Local<br>currency        | In US dollars             |                                            |
| Cambodia (US dollar)            | -                       | 5.66 (Garment<br>industry) | -                        | 170 (Garment<br>industry) | -                                          |
| Indonesia (Rupiah)              | 48,471.8 –<br>121,601.2 | 3.42 – 8.59                | 1,454,154 –<br>3,648,035 | 102.74 – 257.73           | 14401 Indonesian<br>Rupiah                 |
| Lao PDR (Kip)                   | 36666                   | 4.33                       | 1100000                  | 130                       | 8402.18 Kip                                |
| Malaysia (Ringgit)              | 30.67 – 33.33           | 7.64 - 8.30                | 920 - 1000               | 229.11 – 249.03           | 4.06 Ringgit                               |
| Myanmar (Kyat)                  | 4800                    | 3.29                       | 144000                   | 98.88                     | 1435.47 Kyat                               |
| Philippines (Peso)              | 256-512                 | 4.80 – 9.61                | 7680 – 15360             | 144.14 – 288.3            | 53.30 Peso                                 |
| Thailand (Baht)                 | 308-330                 | 9.19-9.85                  | 9,240-9,900              | 276-295                   | 33.19 Baht                                 |
| Vietnam (Vietnam<br>Dong - VND) | 92,000-<br>132,666      | 4-5.75                     | 2,760,000-<br>3,980,000  | 120-173                   | 22,783.00 VND                              |

\*Brunei and Singapore do not have a mandatory minimum wage.

With effect from January 1, 2019, Vietnam's minimum monthly wage rate will increase to VND2,920,000 – VND4,180,000

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**Figure 5. Minimum wage in ASEAN, 2018**

*Source: ASEAN Briefing, 2018*

It is obvious that Thailand takes the first place in paying minimum wage for workers at US\$295, followed by Philippines (US\$288.3) and Indonesia (US\$257). ASEAN Briefing (2018) illustrates that Indonesia's labor market contains significant regional variation because wages are set at a provincial level by Governors through Wage Councils and District Wage Councils of the archipelago's 34 provinces. The minimum wage in Jakarta, at Rp 3,648,035 (US\$257.73) is almost 2.5 times greater than in Yogyakarta, the province with the lowest minimum wage at Rp 1,454,154 (US\$102.74). In smaller cities, the minimum wages are usually even lower.

Besides, recently, the Laotian government increased the minimum wage for all businesses and factories in the country from 900,000 kip (US\$106) to 1.1 million kip (US\$130) a month, starting May 1, 2018. An increase of 11% – the latest hike is the eighth of its kind since 1991 when the minimum wage was just 2,600 kip (US\$0.31) in the country. The higher minimum wage is beneficial for not just laborers in the country, but also businesses as it attracts the interest of laborers who may otherwise seek work in neighboring countries that have higher minimum wages.

In Thailand, the nationwide daily minimum wage has been raised for the first time in three years as the country's military government attempts to do away with a lingering income disparity. In April, the wage committee announced new wage rate, between 308 baht (US\$9.19) to 330 baht (US\$9.85), varying from province to province; the average daily minimum wage rate in the country is 315.97 baht. While the minimum wage rate is the highest in the provinces of Phuket, Chon Buri, and Rayong – at 330 baht (US\$9.85) a day, the southernmost border provinces of Yala, Pattani, and Narathiwat – have minimum wage rate at 308 baht

(US\$9.19). The minimum daily minimum wage was previously 300 baht (US\$9.17) in eight provinces and ranged from 305 (US\$9.32) to 310 (US\$9.48) baht in the others.

Following the country's rapid economic growth, in the past few years, the Vietnamese government has increased minimum wages to combat inflation. As a result, the average monthly minimum wage in the country increased from 2,580,000 (US\$111) in 2017 to 3,370,000 (US\$145) in 2018. This increase follows a 7.3 percent hike that took effect at the start of 2017. Currently, the minimum wage ranges from VND 2,760,000 (US\$120.0) per month in remote areas to VND 3,980,000 (US\$173.0) per month in the key cities of Hanoi, Hai Phong and Ho Chi Minh City. According to the latest government notification, the wages will further increase to between VND 2,920,000 (US\$125.7) and VND 4,180,000 (US\$180.0), in the respective regions, from January 1, 2019. The rising wages could weigh on the country's competitiveness as the neighboring nations such as Laos and Myanmar have lower minimum wages.

**Table 1. Monthly wage of Vietnamese workers in Q2, 2018**

|                    | Average | Male | Female |
|--------------------|---------|------|--------|
| In state sector    | 6377    | 6837 | 5875   |
| In private sector  | 5216    | 5544 | 4619   |
| In FDI enterprises | 6435    | 7227 | 6043   |

(thousand VND)Source: GSO, 2018

In particular, according to General Statistics Office of Viet Nam (GSO), in the second quarter of 2018, workers working in FDI enterprises earn more money than those in state sector or private sector of Viet Nam, 6.4 million VND compared with 5.2 million VND and 6.3 million VND. It can be seen clearly that the average monthly wage gap between state sector and FDI enterprises is quite insignificant (about 60,000 VND or US\$2.6).

Moreover, there exists difference in paying for men and women and in all sectors, the figure for men outweighs that of women. While male workers in state sector receive around 6.8 million VND per month, their female counterparts only get nearly 5.9 million VND. However, in private sector, the difference is much slighter. The gap is biggest in FDI enterprises when men gain 1million VND more than women.

In a nutshell, in current situation, FDI creates more jobs for labor force in Viet Nam. However, it does not bring them much better income compared with domestic enterprises. Furthermore, according to the head of the Labor Relations Department, Viet Nam General Confederation of Labor, at FDI enterprises, the situation of layoffs of workers over 35 years old is quite high. FDI enterprises lay off workers over 35 years old because of inadequate lines of business. Companies are afraid of paying wage, as well as paying higher social insurance premiums for employees. In addition, some workers after the age of 35 do not meet the job requirements, while the young labor resources are abundant.

In Laos, average monthly income of employees, including cash and in-kind payments was LAK 2.5 million. There was a notable gender gap, with female employees earning, on average, LAK 0.5 million less per month than men.

**Table 2. Monthly average wage of Laotian workers, 2017**

|  | Average | Male | Female |
|--|---------|------|--------|
|  | 2407    | 2653 | 2051   |

(Thousand Kip) Source: Lao Statistics Bureau, Ministry of Planning and Investment

Foreign takeovers lead to higher average wages within firms, 19% in Indonesia. Since MNEs tend to have a greater technological edge over local competitors in developing countries, it makes sense that wage gains from FDI would be larger there, than in more developed economies. Labor productivity and wages are

interlinked, with the wage being the price of a worker's productivity, which illustrates that sectors with higher wages also tend to have higher productivity.

### ***3.3.2. Effects of FDI on labor demand***

FDI enterprises need local laborers to operate their plants, thus, they create more jobs and require skilled laborers. According to a study by ILO and ADB, the presence of AEC could lead to about 60% increased demand for high-skilled employment positions such as managers, professionals, technicians and associate professionals. Medium-skilled employment could also grow by around 25% with positions such as clerks, craft and related trade workers, plant and machine operators and assemblers and service and sales workers. Demand for low-skilled workers, meanwhile, could likewise rise by more than 60%. ASEAN internal integration could bring about the rise in labor demand at different levels.

Therefore, it is understandable that the need for labor would also rise when more investment is poured into ASEAN. FDI into ASEAN is concentrated in the manufacturing and service sectors requiring a huge amount of human resources. In the second half of 2018, FDI enterprises in Viet Nam had to recruit more than 67,000 laborers due to the fact that the quality of Vietnamese laborers working in the FDI sector remains limited. The demand for skilled workers is increasing in the context of large volume of FDI.

In 2018, Indonesia attracted around 28 billion US\$ in the sectors of electricity, gas and water, transportation, warehouse and telecommunication, mining and property. The need for skilled workers is forecast to grow from 55 to 113 million for the whole economy in general and for FDI enterprises in particular. The automotive sector with an annual growth of over 5% offers immense opportunities for foreign companies such as Japanese producers or German automotive companies. The energy sector and construction sector are also promising to attract investment. These sectors are in need of large amount of local laborers especially whose high skill to lower the costs.

In Philippines, the situation is quite different. Large number of young Filipinos seeks employment overseas; hence, it faces a shortage of highly skilled labor supplied for both local plants and FDI enterprises. The abovementioned situation yields high demand for labor at different levels.

### ***3.3.3. Effects of FDI on productivity***

In general, productivity of ASEAN workers is quite low compared to other regions. However, with the presence of foreign firms, workers have tendency to improve their productivity themselves to compete with others. Many figures demonstrate that FDI helps to raise the productivity of ASEAN workers by pushing their competitiveness. There is an optimistic signal that worker in ASEAN countries acknowledge their rights and responsibilities more thoroughly, which results in the fact that workers now consider more carefully when taking a job. Workers with higher productivity have the right to ask for better income and working environment. The demand for skilled workers would rise because the productivity is improved, which means that the demand for low-skilled workers decreases. Positively, in the long time, the labor cost would rise in ASEAN.

#### ***The case of Viet Nam***

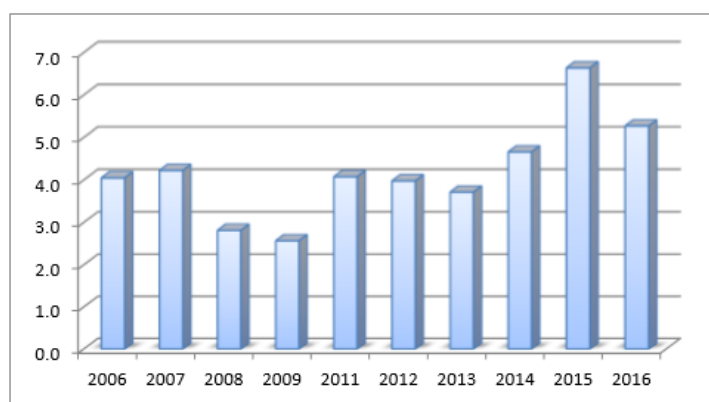
For Viet Nam, direct employment in the foreign investment sector has increased from 330 thousand in 1995 to about 3.6 million in 2017, and indirect employment for about 5 - 6 million workers. Foreign-invested enterprises are also pioneers in training, improving the level and industrial style of workers, technicians and managers. Many of the previous positions employed by foreign experts have now been replaced by Vietnamese workers. Many foreign invested enterprises have paid attention to the social responsibility of the community, participated in hunger eradication, poverty alleviation and other volunteer activities.

At the end of 2017, 58.4% of the total FDI capital is licensed in the manufacturing and processing industries. This shift has significantly contributed to the change in labor structure. According to the MPI's Foreign Investment Department, the shift of labor structure towards increasing labor density in the FDI sector contributed about 29.3% to the overall labor productivity growth of the economy in the period 2006 - 2016.

According to Assoc. Prof. Dr. Nguyen ThiLanHuong - former Director of Labor and Social Science Institute of Ministry of Labour - Invalids and Social affairs (MoLISA), in 2017, the labor productivity of the FDI sector is 3.7 times higher than the general productivity of the economy, 1.3 times higher than that of the state sector, 7.4 times higher than that of the non-state sector. This also reflects the increasing demand for skilled labor of FDI enterprises.

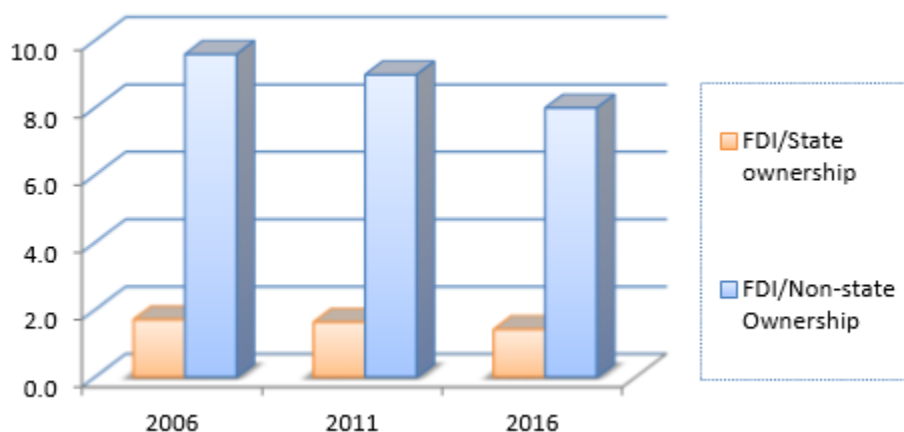
Through the internal training system at home and abroad, or joint training with external institutions, the FDI sector also contributes significantly to improving the quality of human resources in Viet Nam. According to a survey by MoLISA, the proportion of FDI enterprises participating in training for laborers is quite high, reaching 57% in 2017, of which self-training accounts for 40%, associated with training institutions occupying 17%. As a result, FDI enterprises have contributed to forming and developing a skilled workforce and introducing advanced corporate governance.

In fact, many FDI enterprises have gradually transferred technology, technical process, and management experience for Vietnamese staff. Many positions previously held by foreign experts, now Vietnamese workers have the ability to master, contributing to the creation of a team of mature Vietnamese businessmen. According to Collin Blackwell, Human Resources of the Vietnam Business Forum (VBF), "human resources are an important strength for Vietnam to move to a more sophisticated economy."



**Figure 6. Productivity growth rate of Viet Nam (in percentage)**

Source: GSO, 2017



**Figure 7. The gap in absolute productivity between economic sectors (times)**

Source: Calculation from GSO statistics

Among economic sectors, the FDI sector always has the highest absolute labor productivity compared to other domestic economic sectors, especially when compared with the non-state sector (mostly household

economy). The main factor leading to this result is that the FDI sector is concentrated mainly in the processing industry while the domestic sector is concentrated mainly in the agricultural sector, where labor productivity is very low.

The difference in the investment field leading to the average labor productivity of the FDI sector is several times higher than that of non-state workers. However, the gap in absolute labor productivity between the FDI and non-state sectors has gradually narrowed from 9.6 times in 2006 to 8.0 times in 2016. Similarly, the gap between FDI and state sector decreased from 1.6 times to 1.4 times this period.

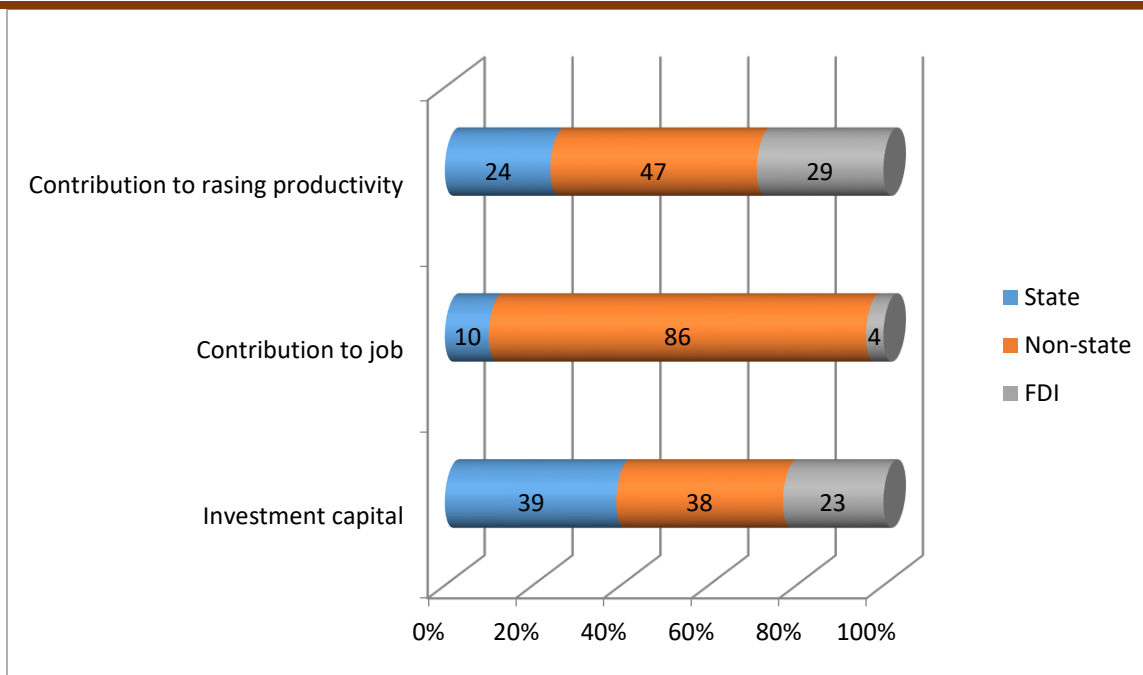
Le Van Hung (2016) points out that the contribution of average non-state labor productivity to the annual average takes the first place (46.6%), the second largest is from FDI sector (29.3%) and the lowest is from state sector (24%). Although the percentage of labor in the FDI sector accounts for only a small proportion of the total labor force in the country as well as the lowest proportion of investment capital in the whole country, the contribution of this sector to labor productivity growth is quite high.

The spillover effects of the FDI sector on labor productivity are mainly through technology spillovers and skills. In addition, indirect effects on labor productivity have also been improved through competition between FDI and domestic firms in the same industry. In order to receive diffusion through competition, it is necessary first to have the presence of FDI sector in that industry. Most sectors of the Vietnamese manufacturing industry (except for the tobacco industry) have a very different level of participation from the FDI sector.

The industries with large presence of FDI sector are electronic products, computer manufacturing; electrical equipment; production of motor vehicles; leather production. The presence of large FDI will create stronger competitive pressure. In line with market principles, competitive firms will stay in the industry and will otherwise be forced out of the industry. There are many companies that are not competitive enough (although they were quite large) to leave the industry such as Vinaxuki, Hanoi electronics company (later Orion-Hanel lamps company). In contrast, there are many successful companies such as AnPhuoc garment company, Viet Tien garment company, Rang Dong light bulb company, TH Truemilk, etc. In order to receive the spillover effect of technology and labor skills from the FDI sector, the link between the FDI sector and the domestic sector in production is the most important factor.

The processing industry shows that backward linkage and forward linkage between these two sectors are still very weak, especially high-tech fields such as electronic, computers; production of motor vehicles. Higher degree of affiliation is in need in the industry of simple employment, less demanding on skills and technological level such as textiles, costume production; wood and bamboo production and processing.

Compared with Indonesia, the level of linkage between the FDI sector and the domestic sector in the processing industry of Vietnam is much lower. More importantly, industries such as electronic, electrical appliances, motor vehicles (requiring high levels of labor and technology) have a very high degree of linkage, while industries using employers with simple skills have lower degree of linkage (garment and textile).



**Figure 8. Capital, attracting labor and raising productivity, 2006-2016**

*Source: GSO, 2016*

#### The case of Thailand

For Thailand, in general, foreign firms are more productive than domestic firms especially in some industries such as paper products, publishing and printing, rubber and plastics, non-metallic and mineral products and machinery and equipment. SasimaWongseree (2008), in the food sector, FDI does not impact the productivity of their local affiliates. Unlike the food sector, FDI enhances the productivity of their local affiliates in textile sector, although FDI inflows to this sector in Thailand are very low. Apparently, in the textile sector foreign firms have more efficient production technology and gain more value added while foreign owned firms in food sectors are not different from Thai firms. For high-FDI sectors, the chemicals and chemical product and rubber and plastic product sectors, it is also the same with the textile sector. The communication equipment and motor vehicle sectors, which received the highest FDI inflows during the sample period, remain high productivity compared to local businesses of Thailand.

Apparently, FDI positively impacts the productivity in many industries of Thailand according to a wide range of productivity measures. This suggests that attracting foreign investments to improve productivity seems a reasonable strategy for many industries, but future research is necessary to identify the source of the heterogeneity in the impact of FDI to refine policy recommendations. It is important to point out that even if we do not identify a positive impact of foreign ownership on productivity, FDI may still be beneficial for other reasons than enhancing a firm's productivity.

#### *The case of Indonesia*

In Indonesia, high value is added in foreign firms. Most importantly, they tend to be relatively large in size, and large firms will have higher output and higher value added than small firms. According to statistics, the average foreign firm employs 610 employees compared to 170 employees for the average domestic firm. Hence, foreign firms are on average 3.6 times larger than domestic firms. Foreign firms are larger than domestic firms in all industries, but the difference is relatively small in chemicals and in basic metals. Foreign firms are particularly large, in absolute terms and in relation to domestic firms, in wearing apparels and in leather products.

Controlling for differences in size slightly reduces the previously shown difference in value added between foreign and domestic firms, but the difference remains large. The average labor productivity is almost 6 times higher in foreign compared to domestic firms. This is an important difference with large welfare implications since wages and living standards are closely related to productivity. Labor productivity is higher in domestic than in foreign firms in wearing apparels, and in printing. It is higher in foreign firms in the rest of the industries, and the difference is particularly large in chemicals. Including chemicals might in some sense exaggerate the difference between domestic and foreign firms, which can be seen from the substantially lower median difference – productivity is 2.5 times higher in foreign than in domestic firms in the median industries (textiles and rubber products).

Indonesian government is trying to set many programs to raise its workers' productivity. According to the paper "Analysis of Trends and Challenges in the Indonesia Labor market" by Emma R.Allen, to improve the productivity of workers, a range of classroom and on-the-job training programs are provided with support from the government. Training is provided based on competency standards and such standards are monitored and revised over time. Interventions that seek to optimize the productivity of the labor force use a combination of labor market information and institutional services. In particular, training policies rely on data from labor market information systems, as well as dialogue with employers and workers, in order to ensure that supply side interventions are well matched with the skills and competencies being demanded by employers. There are a number of institutions that provide training services, including the National Professional Certification Authority (BNSP), professional certification institutions, and competency assessment centers as well as public and private vocational training centers.

#### 4. Conclusion

FDI is extremely pivotal to the developing economies, "with the enormous potential to create jobs, raise productivity, enhance exports and transfer technology, FDI is a vital factor in the long-term economic development of the developing countries" (UN, 2000). FDI provides employment open doors and job opportunities for host nation citizens. Workers are paid higher wages and this empowers them to have an enhanced way of life. New companies arise prompting the expanded improvement in production and manufacturing. FDI enhances and improves the trading assets and resources of the host nation. The examination has demonstrated that nations that get FDI from worldwide associations have lower financing costs, consequently, their traded items are much less expensive and this improves exports. Increased capital inflow is generated by taxation in host nations is principally due to FDI as well.

In order to limit the challenges and grasp high-quality labor mobility opportunities in ASEAN, the burden of finding a solution to this conundrum lies within the domain of the government and private sector. Each member country's government should have solutions to liberalize the flow of skilled labor in the bloc. According to Vineles, since both depend on a skilled labor force, cooperation by both sides is necessary for ensuring the workforce is industry-ready and competitive. The solutions may be taken into account are as follows: For the government, it is necessary to promote the information and communication on AEC, especially on highly skilled labor and specific standards announced and applied by other ASEAN countries. Each member country's government must vigorously undertake the planning and implementation of cross-border skilled labor liberalization. Each country should voluntarily and seriously implement the agreements on mutual recognition.

#### 5. References

- i. Abdul R.R, Muhammad W.K, Nur I.Z and Mohd I.M.R. 'The impact of Foreign Direct Investment, Domestic Investment, Trade openness and population on economic growth: Evidence from ASEAN-5 countries,' Human resource management academic research society, 29 January 2018.
- ii. Abdul R.R and Nor A.S. 'Does Foreign Direct Investment Successfully Lead to Sustainable Development in Singapore', MDPI, 7 August 2018.

- iii. Ang, J. B, 'Foreign direct investment and its impact on the Thai economy: the role of financial development', *Journal of Economic Finance*, 2009.
- iv. Anwar, S. and Nguyen, L. P, 'Foreign direct investment and economic growth in Vietnam', *Asia Pacific Business Review*, 2010.
- v. Athanasios, V.P, J. and Kateriana.L, 'Foreign Direct Investment and Economic Growth in Transition Economies', *South Eastern Europe Journal of Economics*, 2004.
- vi. Lipsey, R.E. and F. Sjöholm, 'Foreign Direct Investment, Education, and Wages in Indonesian Manufacturing', *Journal of Development Economics*, 2004.
- vii. Ly P.T, 'Job and income in FDI enterprises in Ho Chi Minh city', *Science and Technology development*, 05 February 2017.
- viii. Nigel D and Charls J. 'Impact of FDI, ODA and migrant remittances on economic growth in developing countries: a systems approach', *European Journal of Development Research*, April 2013 .
- ix. Norhanishah M.Y, Rusmawati S and Azman-Saini, 'Spillover effects of FDI and trade on demand for skilled labor in Malaysian manufacturing industries', *Asian Academy of Management Journal*, 2015.
- x. Rahim K.L, 'FDI inflow spillover effect implications on the Asia Pacific productivity growth through the export channel', *Revista Galega de Economia*, 26 March 2017.
- xi. Anitta P (2013) Impact of FDI on economic growth of Lao PDR.
- xii. Anh N.T.T, Vu X.N.H, Tran T.T and Nguyen M.H (2006) The impacts of Foreign direct investment on the economic growth in Vietnam.
- xiii. Anh N.T.T (2015) Study and adjust the policy of foreign direct investment in Vietnam to 2020.
- xiv. CIEM (2017) Foreign direct investment: situation and solutions.
- xv. Fredrik S (2016) Foreign Direct Investment and Value added in Indonesia.
- xvi. Fredrik S (2016) Foreign Direct Investments in Southeast Asia.
- xvii. Galina H and Mingzhi X (2016) FDI effects on the labor market of host countries.
- xviii. Hsiu-Y.L, Kenneth S.Lin and Hsiao-Chien Tsui (2015) Home country effects of Foreign direct investment: from a small economy to a large economy.
- xix. Hung L.V (2016) FDI and labor productivity growth in Viet Nam.
- xx. Lipsey, R.E. and F. Sjöholm (2006) Foreign Firms and Indonesian Manufacturing Wages: An Analysis with Panel Data.
- xxi. Nanda A.P and Nurul I (2018) Impact of FDI, COP and inflation to export in Five ASEAN countries.
- xxii. Oliver S and Alfons U (2009) FDI in land in the Lao PDR.
- xxiii. Phouphet K and Kenji N (2015) Effects of FDI on Lao economy and its challenges.
- xxiv. Robert E. Lipsey (2002) Home and host country effects of FDI.
- xxv. S.H.Law (2014) FDI and income inequality in ASEAN-5 countries: a quantile regression approach.
- xxvi. Syviengxay O (2010) Investment climate in Lao PDR.
- xxvii. Vahter, P (2004) The Effect of Foreign Direct Investment on Labor Productivity.
- xxviii. Vien C.T.Q (2014) Foreign direct investment in the process of implementing economic restructuring in association with the transformation of growth model towards improving quality, efficiency and competitiveness in the period 2013 – 2020.
- xxix. International Labor Organization, Labour and Social Trends in Indonesia 2014–2015, Indonesia 2015
- xxx. Ministry of Planning and Investment, Proceedings of the 25-year conference of foreign direct investment in Vietnam, Hanoi 2013
- xxxi. Ministry of Industry and Trade, Vietnam Export-Import Report 2017, Hanoi 2018
- xxxii. Singapore Ministry of Manpower, Singapore Yearbook of Manpower statistics 2018, Singapore 2018
- xxxiii. UNCTAD, World Investment Report 1998: Trends and Determinants, New York and Geneva 1998
- xxxiv. World Bank Group, Lao PDR Economic Monitor, Washington DC 2018
- xxxv. World Economic Forum, Human Capital Outlook ASEAN, Malaysia 2016