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ROLE OF FDI SECTOR IN INCREASING LABOR PRODUCTIVITY IN VIETNAM

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Abstract

After more than 10 years of WTO accession, the Vietnamese economy has been fostered for rapid growth and has been created many drivers of growth by foreign direct investment (FDI). In the period of 2008 - 2018, the registered FDI in Vietnam reached nearly 300 billion USD, and the disbursement rate reached 45%. The FDI sector plays an important role in increasing labor productivity in Vietnam. However, labor productivity in Vietnam is relatively low compared to other countries in the region and there remains a large gap in labor productivity between the FDI sector and other economic sectors of the Vietnamese economy. The FDI sector and the private sector have played the main pioneering role that contributes to the growth of labor productivity in the entire economy of Vietnam. From 2008 onwards, the shift of labor from the low labor productivity sectors to the high labor productivity sectors and to the sector of increasing labor productivity was significantly limited. The increase of labor productivity of the whole economy was mainly driven by the increase of labor productivity of several economic sectors, in which the FDI sector made the biggest contribution. The paper proposed some solutions to spread and link the FDI sector with the rest of the economy, thereby creating motivation to increase labor productivity for the whole economy.

Keywords: FDI, FDI sector, labor productivity, Vietnamese economy, Spillover effect

INTRODUCTION

Vietnam's current economy is divided by ownership form, consisting of three components or three economic sectors, which are: (i) State economic sector, (ii) Non-state economic sector; and (iii) FDI sector. FDI sector is considered an important part of the economy, encouraged to develop and equal with other economic sectors.

Although the period of 2008 - 2017, FDI sector only created about 5% of jobs of the entire Vietnamese economy, but labor productivity in this area is very high and there is a big difference between the FDI sector and the remaining economic areas. The average labor productivity of Vietnam as of 2018 is over 60 million VND / person / year (calculated by constant 2010 price), the labor productivity of FDI sector is 1.4 times higher than the State economic sector and more than 8 times higher than the Non-state economic sector. In the economy, the FDI sector is considered a dynamic region and plays an important role in Vietnam's economic development. In 2017, this region contributes about 17% to GDP, 25% of total social investment, 18% of total budget revenue, 55% of industrial production value, accounting for 70% of export turnover and creates jobs for 3.7 million workers.

Overview of the whole economy, labor productivity is an important indicator contributing to economic growth (increasing GDP) and is also an important indicator to improve the index of total factor productivity of the economy (TFP). Therefore, increasing labor productivity plays an important role in promoting economic growth and solving social problems well. By 2018, non-state economic sector created jobs, accounting for 85% of total employment; the remaining two sectors of the economy only create about 15% of jobs (of which the state sector accounts for 10%, the FDI sector accounts for 5%). Moreover, this proportion will continue to decrease in the coming years as the equitization process of state-owned enterprises and administrative reforms is accelerated.

Thus, the FDI sector has made an important contribution to increasing labor productivity in Vietnam. However, the ability to create more jobs and sustainable jobs from the FDI sector is very limited, some FDI enterprises implement policies to lay off workers, creating a big consequence for the society; On the other hand, labor, health and ability to meet the professional requirements of Vietnamese workers in the FDI sector are still limited. Meanwhile, the linkage between the FDI sector and other economic sectors in Vietnam is still loose, not creating a spillover effect between the FDI sector and the rest; has not created a link string. In the context of international integration in the value chain and the supply chain, in order to gain highly effective, it is necessary to have appropriate connection methods, especially connecting to form an extended value chain, taking the networks or the value chains globally effectively operating of Transnational Corporations (TNCs) as a base or a means to catch up and develop together. The logical connection between the private sector and the FDI sector is the motivation to create high added value for the economy, boosting labor productivity for the whole economy. Thus, it is necessary to properly assess the current situation of labor productivity in Vietnam, the role of the FDI sector with increasing labor productivity in Vietnam based on the connection between the FDI sector and the remaining economic sectors of Vietnam economy. Since then, proposing solutions to increase labor productivity in Vietnam in the coming time based on the linkage and spillover effects of the FDI sector - the economic sector with very high labor productivity.

RESEARCH METHODOLOGY

Methods of data collection

The author collected data on FDI and labor productivity according to economic sectors in Vietnam from the General Statistics Office (GSO) and the Foreign Investment Agency, Ministry of Planning and Investment of Vietnam in the period of 2008 - 2018. In addition, the author also referenced the data of some scientific works published to serve the research process.

Methods of processing, synthesizing and analyzing data

After collecting and synthesizing research data, the author conducted data analysis by graphing methods, comparison methods and descriptive statistics. In addition, the author also applied computer software Microsoft Excel 2010 and computer tools to process data.

In order to contribute to increasing labor productivity from economic sectors, including Vietnam's FDI sector in the period of 2008-2017, this study used SSA method.

Accordingly, the symbols used include: LP is the labor productivity of the economy; LP_i is the labor productivity of the region I $\left(i=\overline{1,n}\right)$; S*i* is the proportion of labor in region i in the total labor force of the economy $\left(i=\overline{1,n}\right)$; t is the time index (t - 1 is the base year; t is the comparison year).

Then, the overall labor productivity of the economy is calculated according to the formula:

$$LP = \sum_{i=1}^{n} LP_i S_i$$

Since then, the growth rate of overall labor productivity has been decomposed into three separate components:

$$Gr(LP) = \frac{LP^t - LP^{t-1}}{LP^{t-1}}$$

$$= \underbrace{\frac{\sum_{i=1}^{n}(LP_i^t - LP_i^{t-1})S_i^{t-1}}{LP_i^{t-1}}}_{(1)-within\ effect} + \underbrace{\frac{\sum_{i=1}^{n}LP_i^{t-1}(S_i^t - S_i^{t-1})}{LP_i^{t-1}}}_{(2)-static\ shift\ effect} + \underbrace{\frac{\sum_{i=1}^{n}(LP_i^t - LP_i^{t-1})(S_i^t - S_i^{t-1})}{LP_i^{t-1}}}_{(3)-dynamic\ shift\ effect}$$

The first component: The sector's internal effect measures total change in labor productivity of the sectors when the sectors retains a constant proportion of labors as in the base year.

The second component: Static shift effect. This effect is calculated by summing the relative change of labor in each sector between year t and year (t - 1) with weights as the initial values of labor productivity (in the base year t - 1) of that sector.

The third component: dynamic shift effect or interactive component, measuring the interaction between changes in labor productivity and changes in labor division of sectors.

RESULTS AND DISCUSSION

Overview of FDI in Vietnam

In the period of 2008 - 2017, there were 16,208 FDI projects licensed for investment registration in Vietnam with a total registered capital of over 274 billion USD. In particular, the capital implemented over 125 billion USD reached 45.85% of the registered capital.

Table 1. FDI in Vietnam (2008-2017)

Year	Number of projects	Registered capital (billion USD)	Realized capital (billion USD)	Realized capital / Registered capital (%)	Average capital per project (million USD)
2008	1,171	71.7	11.5	16.04	61.23
2009	839	23.1	10	43.29	27.53
2010	1,240	19.764	11	55.66	15.94
2011	1,191	15.618	11	70.43	13.11
2012	1,287	16.348	10.46	63.98	12.70
2013	1,530	22.352	11.5	51.45	14.61
2014	1,843	21.922	12.5	57.02	11.89
2015	2,013	22.757	14.5	63.72	11.31
2016	2,503	24.858	15.8	63.56	9.93
2017	2,591	35.884	17.5	48.77	13.85
Total	**16,208**	**274.303**	**125.76**	**45.85**	**16.92**

(Source: Foreign Investment Agency, Ministry of Planning and Investment)

The average scale of a project tends to decrease; In 2008, the average scale was 61.23 million USD/1 project, the implemented capital was only 16.04% of the registered capital; By 2017, the average scale will be reduced to 13.85 million USD / project, but the FDI disbursement rate will increase to 48.77%. Thus, in the past 10 years, although average scale of a project decreased, the implemented capital ratio compared to the registered capital tends to increase greatly.

Regarding investment partners, by the end of 2017, 125 countries and territories have invested in Vietnam, of which Korea is the biggest investor with a total registered capital of up to 57.66 billion USD (accounting for 18.1% of total investment capital); Japan is second with total registered capital of 49.46 billion USD (accounting for 15.5% of total investment capital).

In 2017, there were 115 countries and territories with FDI projects in Vietnam. Japan leads with total investment (newly registered, additional capital and capital contribution, share purchase) is 9.11 billion USD, accounting for 25.4% of total investment capital; Korea ranked second with total investment capital of 8.49 billion USD, accounting for 23.7% of the total investment capital; Singapore ranked 3rd with total investment of 5.3 billion USD, accounting for 14.8% of total investment capital.

Moreover, the proportion of employees created from the FDI sector will continue to increase in the coming years when Vietnam fulfills its commitments in many new trade and investment liberalization agreements such as: FTA with South Korea; Vietnam - Japan Economic Partnership Agreement; FTA Vietnam - Chile; ASEAN Comprehensive Investment Agreement (ACIA); the latestly the Comprehensive and Progressive Trans-Pacific Partnership Agreement (CPTPP); along with promoting equitization for state-owned economic groups and administrative reforms.

Effectiveness of using capital and increasing labor productivity in Vietnam

Efficiency of investment capital use - ICOR coefficient (investment ratio against GDP / GDP growth rate) and labor productivity (GDP / labor).

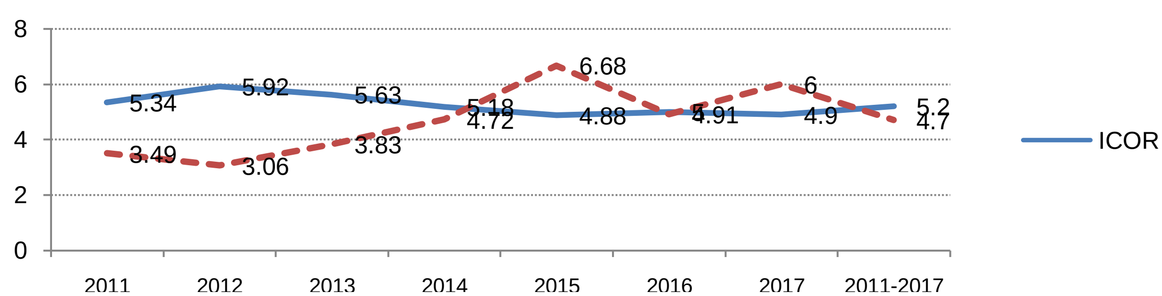

Figure 1: ICOR coefficient and growth rate of labor productivity of Vietnam, 2011-2017

(Source: Calculated according to the General Statistics Office data)

The efficiency of using investment capital (calculated by ICOR coefficient) tends to increase, the ICOR of 2017 is 4.9 equivalent to the last 3 years and lower than the average ICOR in the period of 2011-2017 (5.2). However, considering the efficiency of capital use, compared to the countries in the same period of rapid growth and technological level corresponding to Vietnam, the ICOR of 5.2 (average period 2011-2017) and 4.9 of 2017 is too low (mean that ICOR is too high). Japan (the 1970s), Korea, Taiwan (in the 1980s) also had the target of rapid growth and technological level like Vietnam today, but the ICOR is only 2.5-3 (ie only ½ of Vietnam). Many causes, but the Vietnamese economy mainly depends on investment capital, has not really grown from increasing labor productivity or improving the quality of growth thanks to the increase of TFP index.

Labor productivity in the period of 2011-2017, the annual average has increased (4.7%), in 2017, reached 6%, increased to 25% compared to the average of the whole period. However, according to the General Statistics Office (according to purchasing power equivalent to 2011), Vietnam's labor productivity reached USD 9,894, only 7% of Singapore's; 17.6% of Malaysia; 36.5% of Thailand; 42.3% of Indonesia; 56.7% of the Philippines and 87.4% of the Lao labor productivity. Notably, the gap in labor productivity between Vietnam and other countries continues to increase. Difference in labor productivity of Singapore and Vietnam increased from 115,087 USD in 2006 to 131,333 USD in 2016; Similarly, the difference in labor productivity of Laos and Vietnam increased from $ 220 to $ 1,422. Labor productivity in Vietnam is lower and increasingly different from other countries explained by: (i) Unemployment rate (tangible and disguised) is quite high while workers who have jobs have low qualifications; (ii) Low and medium production technologies account for a high percentage and 90% are small and medium enterprises which are facing many difficulties in production; (iii) Vietnamese workers mainly undertake the production of products and processing stages, not create branded products to supply to the market. FDI sector attracts labor with high labor productivity but job creation in this area accounts for a low percentage, the requirements on labor qualifications and labor use policies of some FDI enterprises reveal many shortcomings , there is no linkage and disruption of barriers to create a mutual motive force between the FDI sector and the rest sectors of the economy.

Current situation of FDI sector with increasing labor productivity of Vietnam's economy

Labor productivity is calculated by the ratio of output (VND billion according to constant 2010 price) and number of employees (1,000 employees). Thus, labor productivity of the whole Vietnamese economy has been continuously improved in the period 2000 - 2017 (see Figure 02).

Unit: Million VND (constant 2010 price)

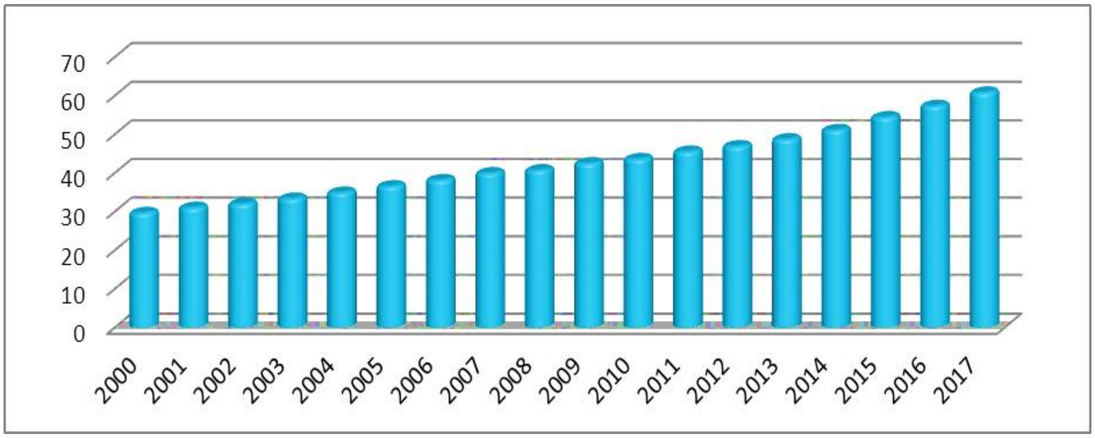

Figure 2: Labor productivity of Vietnam, period 2000 - 2017

(Source: Author's calculations from data of General Statistics Office)

The average level of labor productivity achieved is still low, only higher than the labor productivity of the non-state economic sector and much lower than the productivity level of the state economic sector and the FDI sector. Labor productivity in Vietnam is still low due to many reasons, including the reason that the areas with low labor productivity account for a high proportion of labor and vice versa, the region with high labor productivity (FDI sector) accounts for the low proportion of labor (about 5%). The reason is that the quality of labor is low, the rate of trained workers is still very low (under 20%) and slowly increases. Moreover, even for trained workers, the structure also has many unreasonable points. Low labor productivity is a concern for Vietnam's competitiveness in the context of international economic integration.

The FDI sector always leads in terms of labor productivity, the state economic sector in the second position and the non-state economic sector with the lowest labor productivity level. In the economy, the FDI sector is considered a dynamic region and plays an important role in Vietnam's economic development.

However, labor productivity of FDI sector tends to decrease in the period of 2008-2017. Perhaps due to low social labor productivity, labor costs remain low, which is a key feature to attract FDI enterprises to Vietnam in labor-intensive industries, which do not require much skills. Such as: Textile, footwear, and processing - manufacturing simple products. Thus, after many years of participating in the economy, FDI enterprises still focus on natural resource exploitation and processing and assembly industries, mainly taking advantage of cheap labor, creating low added value. Meanwhile, labor productivity of the state-owned sector tends to increase (although quite slow), so the gap in labor productivity between these two regions is getting smaller. However, the gap in labor productivity between these two economic sectors is still quite large.

In the 2008-2017 period, over 85% of the economy's labors are operating in non-state economic sectors. This means that the majority of jobs are created in non-state economic sectors and most of them are jobs with low labor productivity, making labor productivity of the whole economy low and slowly improving. Moreover, the slow integration of the non-state economic sector with the FDI sector to participate in the global value chain has led to low domestic added value even though Vietnam is considered a gateway of area connecting to the global market.

In the period of 2008 - 2017, FDI sector has high labor productivity but the growth rate of labor productivity is negative in most years. Labor productivity of the non-state sector increased at an average rate of 3.8% / year, higher than 3.2% of the state sector in the same period. Thus, increasing labor productivity of the domestic economic sector has overwhelmed the decline in productivity of the FDI sector and made an important contribution to the growth of overall labor productivity.

The growth rate of labor productivity in Vietnam is relatively high in comparison with ASEAN countries and Asia region. Vietnam's labor productivity increased at an average rate of 5.6% during 2000-2005 (second only to China), 3.8% during 2005-2010, and 4.3% during 2010-2017 (ranked 7th in the Asian labor productivity growth ranking). The average growth rate of labor productivity in Vietnam in the period of 2000 - 2017 is 4.5%, higher than the average of ASEAN, but lower than Laos, then in 2017 Vietnam has lagged behind. This fact raises concerns about FDI attraction into Vietnam market. Labor costs in Vietnam are increasing faster than labor productivity. Therefore, it is possible that FDI inflows will shift to more attractive markets such as Laos and Cambodia, where costs are lower and labor productivity increases faster.

In general, in the period of 2008-2017, the flow of labor shifting from non-state economic sector with low labor productivity to FDI area has higher labor productivity, which is the largest component affirming the contribution of FDI sector for the overall increase in labor productivity in Vietnam. Although this shift is positive and in the right direction, the decline in the labor productivity in the FDI sector makes interaction components and intra-regional effects both contribute negatively for growth.

Challenges of the FDI sector with increasing labor productivity in Vietnam

The period of the golden population of Vietnam lasts about 50 years from 1970 to 2020. The more the end of the period of golden population structure, the lower the rate of population growth in working age. In fact, the growth rate of labor force in the working age of Vietnam in the period of 2001-2010 is about 2.8%, in 2017 only 1.07%. The decline in the rate of labor force growth in the working age is very significant and this rate is expected to continue to decline.

To solve the problem of increasing labor productivity in the process of implementing ambitious goals in 2035, Vietnam needs to rely on the increase in labor productivity of all economic sectors, especially the non-state economic sector linking with with FDI sector. Improving labor productivity in all economic sectors is not enough to increase the rate of labor productivity growth of the economy to the potential level, besides, the movement of labor from low productivity sectors to higher productivity sectors(FDI sector) is also needed to boost labor productivity.

The above analysis results show that the FDI sector is the region with the highest labor productivity, this is also a sector with considerable absorption of workers from the non-state economic sector, but the labor productivity of this region tends to be descending regularly. Therefore, the basic challenge for this area in the coming time is to both improve labor productivity and continue to absorb labor from non-state economic sectors moving to FDI sector.

The FDI sector has contributed significantly to economic development such as GDP growth, capital, budget revenue, job creation and always accounts for a large proportion of the total export turnover (accounting for over 72% in 2017) of Vietnam). However, the quality of FDI is still low, the spillover effect of technology and business knowledge to the Vietnamese economy is still weak, so it has little impact on the restructuring of the economy and increasing labor productivity of the economy. The lack of linkage between FDI enterprises and domestic enterprises has not helped domestic enterprises to become stronger.

From 2008 to 2017, the export proportion of the FDI sector increased rapidly from 57% in 2008 to 72% in 2017 while the share of added value in GDP of this sector increased insignificantly (from 16.2% in 2008 and 17% in 2017). This shows that the FDI sector is gradually dominating the domestic economic sector, but the added value of the FDI sector contributes to the inadequate economy, on the other hand this also shows the production of Domestic areas are struggling.

Thus, the biggest challenge for the FDI sector is the issue of imported technology and technology transfer and dissemination channel between FDI enterprises and domestic enterprises with the condition of ensuring ecological environment. In addition, the situation of domestic workers with low professional and technical qualifications, relatively high labor costs also put significant pressure on the ability to increase labor productivity of this sector.

CONCLUSIONS AND SUGGESTIONS

Research results show that labor restructuring between FDI sector and domestic economic sector has had a strong impact on increasing overall labor productivity in the period before 2008. In the period of 2008-2017, increasing labor productivity of the economy is mainly explained by the increase in labor productivity of economic sectors, including the FDI sector with significant contributions. The FDI sector always maintains the highest level of labor productivity, but creates the lowest employment rate for Vietnamese workers. This shows that in the period 2008-2017, labor mobility from the economic sector in the nation with low labor productivity to FDI with high labor productivity is not much. Thus, in the new context, Vietnam can increase labor productivity by shifting labor from the domestic economic sector to the FDI sector or creating a sustainable link between the FDI sector and the domestic economic sector to increase labor productivity for the whole economy. For further researches, the author will further study the role of the FDI sector in increasing labor productivity by analyzing the impact of FDI on labor productivity through quantitative models, determining the direction of impact as well as their impact level. In addition, the author will study this issue further through a comparative analysis of the role of the FDI sector with other sectors in increasing Vietnam's labor productivity.

Solutions for FDI sector to increase labor productivity in Vietnam

Firstly, Vietnam needs to have a proper strategy to attract FDI to enhance the role of the FDI sector in increasing labor productivity, through strengthening domestic connectivity, especially between small and medium enterprises (SMEs) of Vietnam and FDI enterprises.

Secondly, it is necessary to pay attention to and prioritize FDI attraction in the field of high technology, source technology, select FDI projects to create high labor productivity and spread to the economy. This will create opportunities for the domestic economic sector to participate in the global supply network and increase labor productivity through technology transfer. To this end, it is necessary to have a strategy to improve the capacity of the domestic economic sector to be capable of learning new technologies or being able to supply input to the FDI sector. This strategy should be closely linked to the science and technology development policy, the education and training policy, and entrepreneurship spirit promotion policies.

Thirdly, the research shows that the FDI sector generates over 50% of the industrial production value of the economy, mainly in the FDI sector focusing on light industries and food industry. For a country where the average income level is low, such as Vietnam, industry is the sector with the highest level of labor productivity and also the most potential technology innovation sector.

Fourthly, continuing to transform from processing industry to manufacturing and processing with the policy of continuing to consider FDI as a driving force for growth, but there should be solutions to link domestic economic sectors with FDI. Continue to strengthen FDI attraction policies, improve the quality of FDI inflows, paying special attention to large-scale FDI projects and technology investors. Only receive FDI flows which have plans on technology transfer and plans on the link activities between the domestic economic sector and the FDI sector.

Fifthly, linking the FDI sector with the domestic economic sector, linking domestic enterprises with FDI enterprises, aiming at technology transfer, strengthening the role of domestic enterprises in economic growth. On the other hand, develop and implement a roadmap in which with Vietnam enterprises associate with FDI enterprises along the value chain globally with the mainstream view that is to promote the development of domestic support industries around FDI enterprises. Develop plans to implement the support of FDI enterprises to improve the capacity of domestic enterprises, especially human resources, which can take on high-tech activities, high technology absorption capacity. The State creates a favorable mechanism to develop supporting industries for manufacturing and processing industries. This is the key to participating in the global value chain for domestic and business links. Develop incentive policies for the FDI sector to process and supply components for the domestic sector.

Sixthly, the labor productivity of FDI sector is high but the attraction of labor in this area is the lowest, the effect of connecting and spreading among FDI sector with the other two economic sectors is very weak, due to many barriers. Accordingly, it is necessary to minimize barriers to connecting Vietnam's private economy with the FDI sector. The cause of low connectivity indicates are inadequate awareness of the potential and strengths of the FDI sector and domestic economic sectors; not investing adequately in overcoming barriers and not making full use of preferential policies, the Government's companion as well as domestic and international experiences in this aspect.

Seventhly, improve qualify of Vietnam's labor to be able to actively participate in the FDI sector, ensuring legal rights and obligations for workers Vietnam joining the FDI sector.

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