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THE DOUBLED-EDGE SWORD OF RAISING THE MINIMUM WAGE: THE CASE OF INDONESIA

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ABSTRACT

This study examines the impact of minimum wage on labor productivity, financial performance and foreign direct investment (FDI). The data was collected from the quarterly financial statements of listed firms from 2010 to 2018. The manufacturing sector was selected, which comprises 175 firms from 619 listed firms in 2018. The variables are salary expenditure, change in salary expenditure, productivity, financial performance, FDI and minimum wage. A random effect generalized least squares was employed and the results revealed that the minimum wage has a negative impact on labor productivity and financial performance but is not significant. The negative results indicate that an increase in minimum wage is slower than inflation rate, thus it can only cover the cost of living. Furthermore, an increase in minimum wage affects the higher cost of production thereby reducing company profits. It appears that changes in the minimum wage have a negative and significant impact on FDI in Indonesia.

Contribution/Originality: This study is considered as novel since there has been little research conducted to date to investigate the impact of an increase in the regional minimum wage on labor productivity, firms' financial performance and FDI in the context of Indonesia using considerable data from firms in the manufacturing sector that are listed on the Indonesia Stock Exchange.

1. INTRODUCTION

In 2015, Indonesia opened its gates when the Association of Southeast Asian Nations (ASEAN) Economic Community established ASEAN Economic Community (AEC) in which it is built on four interrelated characteristics: (a) a single market and production base, (b) a highly competitive economic region, (c) a region of equitable economic development, and (d) a region fully integrated into the global economy (ASEAN, 2016). The AEC is a major milestone in the regional economic integration agenda in ASEAN in which the integration was aimed at creating a competitive market of over 600 million people in ASEAN countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam) and goods, services, investment capital, and skilled labor can be transferred freely. Due to this development, many businesses have begun preparing themselves three years ahead of time to meet the challenges and opportunities. However, the readiness of each ASEAN country varies widely among the members. Indonesia, as one of ASEAN members, has to meet challenges such as the quality of hard and soft infrastructure, the quality of human resources, and the quality of procedures and regulations.

To meet the ASEAN Economic Community (AEC) standard in 2015, every aspect has to be conducted effectively and efficiently, therefore, creating competitive advantage. However, the minimum wage has become one of the main issues in Indonesia as workers demand an increase to the minimum wage, and this demand occurs annually. This creates major impacts on employment and workers' welfare in the medium and long terms—productivity on the worker side and financial performance and FDI on the company side. First, the minimum wage will grow faster than inflation and productivity. Second, government intervention in wage-setting may hinder the process of collective bargaining between employers and labor unions. Third, the demand for raising the minimum wage every year has substantially affected foreign direct investment in Indonesia and a large number of foreign direct investors have withdrawn their investment due to the high cost of labor (Tambunan, 2006). Companies have been postponing minimum wage increases due to higher electricity tariffs, and early in 2013, workers in Indonesia demanded that the government cancel these increases because of the negative impact on workers. In 2013, a 44% rise in minimum wage was approved for workers in Jakarta to 2.2 million rupiahs per month (approximately 228.81 USD per month). As a result of a drastic increase in the minimum wage, divestments occurred in the subsequent year. This study investigates the impact of an increase in the regional minimum wage on workers, firms and investors. From the perspective of workers, this study analyzes whether an increase in regional minimum wage affects their productivity using labor index productivity. From the perspective of firms and investors, the study analyzes the impact of an increase in regional minimum wage on firms' financial performance and FDI.

The minimum wage is a popular policy instrument to fight income inequality. According to the International Labor Organization (ILO), minimum wages were applied in 92% of their 186 member countries in 2015. While there is a large amount of controversial literature on the implications of minimum wage for employment and income distribution (Brown, 1999; Card & Krueger, 1995; Neumark & Wascher, 2008), most studies examined whether minimum wage increases have positive or negative effects on employment. Very little is known about the cross-regional consequences. Furthermore, it is expected that wage rates will affect underdeveloped countries compared to developed countries as there is a greater labor force available to work for a lower minimum wage. A substantial difference in minimum wage among locations will create migration waves. In addition, an increase in minimum wage will affect productivity growth (Atkinson, 2019a).

Labor productivity estimates can be used to develop labor market policies and to monitor their effects as high labor productivity is often associated with high levels of human capital. Moreover, an understanding of the effects of wage settlements on rates of inflation can be derived from labor productivity estimates. An increase in the minimum wage should stimulate an increase in productivity leading to lower employee turnover, and companies are more likely to provide more training opportunities for employees (Levine, 1992; Raff & Summers, 1987). Generally, the quality of human resources is directly related to the quality of income through wages/salary. It is expected that an increase in wages affects productivity later, which may contribute to a sufficient standard of living in a nation. Labor productivity is one of the indicators of economic growth, competitiveness and living standards within an economy. Productivity is a measure of how efficiently inputs (capital and labor) are used to produce outputs (goods and services). A higher productivity rate means a nation can produce more, or the same amount, using less. This indicator measures the ratio of economic output to labor input, and the output is measured by gross domestic product (GDP). Unit labor cost represents a direct link between productivity and the cost of labor in generating output. A rise in an economy's unit labor cost represents an increased reward for labor's contribution to output. However, a rise in labor costs that is higher than the rise in labor productivity may be a threat to an economy's competitiveness if other costs are not adjusted to compensate. As a competitiveness indicator, unit labor cost is particularly relevant for the manufacturing industry, which produces many internationally tradable products. Figure 1 below shows the labor productivity growth rate of Indonesia for the last two decades.

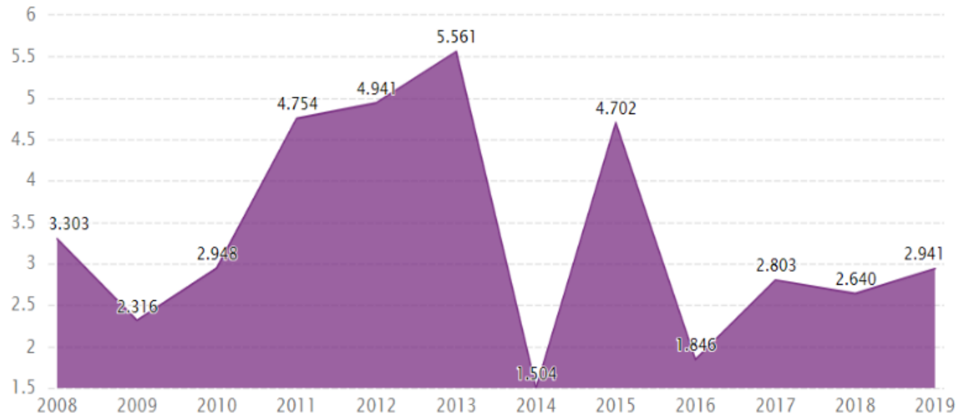


Figure 1. Indonesia Labor Productivity Growth.

Since 1999, the average national minimum wage has been increasing at an average of 13% annually. As can be seen in Figure 1, labor productivity in Indonesia fluctuates significantly. In 2019 labor productivity grew at a rate of 2.941%, and the relatively high increases in minimum wage in certain years have caused uncertainty for businesses. However, the increase of the provincial minimum wage since 2007 is no longer consistent with the increase due to inflation, basic living requirements and the scale of the wage change itself.

Indonesia has a dualistic labor market structure indicated by a high number of informal workers and a small number of formal workers; therefore, minimum wage setting must consider factors such as average wage level, workers' living requirements, inflation, productivity, economic growth, availability of jobs and capacity of business entities. The minimum wage should be used as a floor wage, but not for all workers, and should differ between various industries and types of firms. According to Indonesian law, local governments have the authority to set minimum wages resulting in varied minimum wage rates from region to region. Minimum wages across all provinces, however, increased by an average of 18% in 2013, whilst increases in 2012 averaged at 20%. Minimum wages currently range from IDR 2,200,000 (US$226.50) per month in Jakarta to IDR 830,000 (US$85.45) per month in Central Java. To combat inflation and prevent any outbreaks of labor unrest, ASEAN countries have increasingly been following China's strategy of pushing for higher minimum wage levels and enacting new labor laws that better protect workers' rights. Many countries also see minimum wage increases as an opportunistic method of raising the productivity of their labor force in preparation for the opening of the ASEAN Economic Community in 2015 (source: http://www.aseanbriefing.com/news/2013/04/16/minimum-wage-levels-across-asean.html), however, this may contradict the investment decision considered by the investor, as minimum wage is also one factor considered by investors when deciding on the best country to site a manufacturing facility. Comparative wages in ASEAN countries in 2020 is shown below.

Table 1. Comparative Monthly Minimum Wages 2020 and GDP 2019 in ASEAN Countries.

No	Country	Monthly Minimum Wage (USD) January 2020	GDP Nominal per Capita (USD) 2019
1	Singapore	Negotiated	65233
2	Brunei Darussalam	Negotiated	28022
3	Thailand	301-74 - 323.91	7808
4	Philippines	294.42 - 316.21	3485*
5	Malaysia	269.22	11415
6	Cambodia	170	1620*
7	Vietnam	160.82 - 181.20	2715*
8	Laos	126.34	2535*
9	Indonesia	114.92 - 288.29	4136
10	Myanmar	99.59	1408*

Note: *Country that has a smaller GDP than Indonesia.

As can be seen in Table 1, Indonesia is ranked seventh as the lowest minimum wage among the eight ASEAN countries except for Singapore and Brunei Darussalam which do not apply minimum wage. If we compare this with the GDP nominal per capita in 2019, Indonesia has a higher GDP than the Philippines, Cambodia, Vietnam and Laos, but has a lower minimum wage.

Sulistiawati (2012) examined the impact of minimum wage on employment rate and public welfare in the province of Indonesia. The results revealed that the minimum wage has a negative and significant impact on the employment rate. However, the employment rate had no effect on the improvement of public welfare in the province of Indonesia as the minimum wage received by workers was lower than the minimum standard cost of living and the tax income level. Thus far, the main concern in determining the minimum wage in Indonesia is solely based on "decent living needs" (Kebutuhan Hidup Layak or KHL), but there are some other factors that should also be considered, such as economic growth, productivity and marginal effort (Izzaty & Sari, 2013).

In conclusion, while the effect of minimum wages on income inequality and poverty has been widely investigated (Brown, 1999; Card & Krueger, 1995; Dolado et al., 1996; Jayanthakumaran, Sangkaew, & O'Brien, 2013; Machin & Manning, 1997; Neumark & Wascher, 2008; Saget, 2001), only a few studies have examined the impact of minimum wage on productivity. This study is considered as novel since there has been little research conducted to investigate the impact of an increase in regional minimum wage on labor productivity, firms' financial performance and FDI in the context of Indonesia, therefore, this study provides some perspective regarding the relationship between an increase in the regional minimum wage on labor productivity, firms' financial performance and FDI.

2. LITERATURE REVIEW

The relationship between minimum wage and poverty alleviation has been investigated by many researchers; however, few studies have investigated the impact of an increase in the minimum wage on workers and firms or investors in the context of Indonesia. This study attempts to fill the gap by examining the relationship between an increase in minimum wage and labor productivity, firms' financial performance and investment choice by investors (investment destination). A large body of literature has shown that countries that implement a minimum wage tend to see a positive wage effect and a small negative employment effect among workers covered by minimum wage legislation. The latest studies on the experiences of the USA and the UK found no evidence of negative effects on youth employment (Bazen, 2000) and there is no consensus on the direction and size of the effect on employment (Lemos, 2004). However, some studies found employment effects to be absent or positive and others found significant negative effects (Stewart, 2002).

Neumark, Mark, and William (2004) asserted that a minimum wage that is too high or above the market-clearing level would lead to employment reduction and an increase in unemployment. Furthermore, earned incomes of low-wage workers decline in response to minimum wage increases and poverty increases. Arguably, a net positive impact on the economy will release pent-up consumption, albeit with some inflationary impact, and any potential small loss of jobs will be more than covered by the multiplier effect as it puts more money in the hands of workers if a higher wage is applied. As a rule of thumb, the national minimum wage in developing countries should be less than 40% of the average wage and not more than approximately one-third of the average wage. Inflation, productivity and employment growth should be considered carefully when an increase in the minimum wage is set. However, there is no universal answer as minimum wage effects depend on a number of country-specific factors, such as labor market conditions and variations in worker productivity across regions, industries and occupations (Pereira, 2003). Furthermore, setting a wage floor above the equilibrium level will lead to a fall in employment (Card, Katz, & Krueger, 1993), and there are sharp unemployment effects for those constrained by the minimum wage (Curric & Fallick, 1996; Neumark et al., 2004; Neumark & Wascher, 2002). Abowd, Kramarz, Lemieux, and Margolis (1999) found strong negative impacts on employment for workers who earn close to the minimum wage.

In addition, Suttiwichienchot and Sampattavanija (2019) investigated the effect of minimum wage policies on the economy and employment in Thailand and found a negative correlation with minimum wage where an increase of minimum wage led to a decrease in GDP, investment and employment in Thailand.

The goal of the minimum wage legislation is to redistribute earnings to low paid workers and thus lift the working poor out of poverty (Freeman, 1996). However, there are considerable variations in the number of different minimum wages set. Most countries have variations by age and some have variations across regions, occupations, industries, job tenure, size of firms and number of dependents. However, the Indonesian government sets minimum wages based on basic requirements of a decent quality of living by taking productivity and economic growth into account according to Article 88 of Labor Law No. 13/2003. Negative wage policies can be offset with an increase in labor productivity (Suttiwichienchot & Sampattavanija, 2019), and Manning and Purnagunawan (2011) stated that labor market conditions in Indonesia have improved significantly in the last decade. Unemployment has declined steadily by almost one percentage point per annum, from 11.2% in November 2005 to 7.1% in August 2010; and growth in total employment growth has been high at 2.7% per annum on average, outpacing the growth of the working-age population. Over the past two decades, labor productivity improvements accounted for more than 60% of economic growth with the remainder coming from increased labor input due to an expanding working-age population. Surprisingly, the majority of Indonesia's productivity gain has come from productivity improvements within sectors rather than a shift of workers from lower-productivity agriculture into more productive sectors. The three sectors making the largest contribution to this productivity improvement are wholesale and retail trade, transport equipment and manufacturing, and transport and telecommunications.

Cowgill and Huynh (2016) found that compliance with minimum wages in Asia was still weak, especially in the garment, textile and footwear sectors, and concluded that most workers in the garment sector in a number of countries in Asia were paid below the minimum wage. Out of seven selected countries observed in Asia, namely Vietnam, Cambodia, Pakistan, Thailand, Indonesia, India and the Philippines, Indonesia's non-compliance level is ranked third after the Philippines and India. In terms of gender, Indonesia ranks fourth in the level of non-compliance where female workers tend to be paid below the minimum wage compared to male workers. Rachmawati, Isharyanto, and Winarno (2017) investigated the implementation of a minimum wage in Boyolali Regency in the garment, textile and footwear sector and found that there were still employers who had not paid wages in accordance with the minimum wage provisions, which resulted in a low level of welfare among the workforce.

Furthermore, Sungkar, Nazamuddin, and Nasir (2015) examined the effect of minimum wage on income inequality in Indonesia from 1999 to 2013. The result revealed that the minimum wage has a positive effect on income inequality and there was a relatively small change to the Gini ratio. This indicates that the gap in income inequality has become larger in Indonesia. A negative effect of a minimum wage increase is that brings fewer benefits and is seen an inefficient tool to lower income inequality. In addition, Nangarumba (2015) found a negative effect of economic structure, minimum wage, capital expenditure and investment on income inequality in Indonesia from 2005 to 2014. Moreover, Susanti (2017) examined the effectiveness of a minimum wage in Bandung Regency. The results revealed that an increase in minimum wage cannot be used as an effective tool to secure a minimum wage. In fact, as an increase in minimum wage affects most firms, they attempt to avoid paying the minimum wage using various strategies. One of the strategies undertaken by a company was to make wage payments below the minimum wage standard through an underhand agreement, not through deferment. The company stated that they could only pay wages in accordance with the stipulation of the minimum wage by the government, but the company had to apply workers' efficiency as much as 40%, so there will be a reduction in the number of workers. In terms of compliance, company realization of the minimum wage set by the government is relatively low.

Minimum wage aims to increase the standard of living and it is expected to reduce poverty (Kapelyuk, 2015). Wages should not only be seen from the perspective of the company but also needs to be seen from the workers' side. Wages received by workers represent their prosperity level, which can also indicate higher work motivation that results in higher productivity for their employers (Katz, 1980; Rees, 1973). Furthermore, a consistent increase in the minimum wage every two years has an impact on workers' motivation and business productivity (Kim & Jang, 2019). Moreover, an increase in minimum wage may affect other aspects for firms, such as labor productivity, financial performance, competitive advantage and foreign direct investment. Sugiharto and Kurnia (2014) investigated the impact of minimum wage on foreign direct investment from 2004 to 2012. The result revealed that an increase in minimum wage had a negative and significant impact on foreign direct investment in the short run and a positive and significant impact in the long run. This is likely indicating that in the long run an increase in wage is expected to be followed by higher productivity, even though in the short run higher wages increase the cost of production, which will undermine investment. Foreign direct investment (FDI) which has long been the driver of growth in Southeast Asia, may be affected by the rise of minimum wages. A shift of focus back to multinational corporations (MNCs) in South East Asia is growing rapidly as they have been focused on China and India for the past decade due to both their immense populations and low costs of production, and in this situation the Indonesian government may also attract inbound investment through numerous incentives.

It is known that workers in the informal sector have significantly lower average wages than workers in the formal sector. This is mainly because jobs in the informal sector are low quality as enterprises in the informal sector generally do not have linkages with large businesses and mainly serve low-income segments. Aswicahyono and Hill (2010) analyzed various labor market outcomes in Indonesia from 1992 to 2012, specifically differences in labor market indicators among individuals from different socio-economic classes and regions and the evolution and trends in indicators before and after the Asian financial crisis. They found that there was a slow adjustment and recovery of the formal sector after the financial crises and employment in manufacturing, specifically, experienced a jobless growth during this period.

3. RESEARCH METHOD

This paper examines the impact of minimum wage on productivity, firm financial performance and foreign direct investment; thus, the data was collected from the quarterly financial statements of listed firms from 2010 to 2018, the FDI reports from 1992 to 2018 from the Indonesian Bank website and minimum wage reports from Statistics Indonesia (Badan Pusat Statistik). There were 619 firms listed on the Indonesian Stock Exchange in 2018 and this study selected the manufacturing sector, which consists of three sub-sectors, namely the basic industry & chemicals, the consumer goods industry and the miscellaneous industry; the sample used contains 175 listed manufacturing firms. The reason for the selection of the manufacturing industry is because it mostly comprises labor-intensive sectors. Due to an incomplete financial report, this paper utilized 167 companies for the final sample.

The variables in this study are salary expenditure, change in salary expenditure, productivity, financial performance, foreign direct investment (FDI) and minimum wage. Productivity is calculated by dividing a total direct salary by the total sales of the company. A direct salary paid by the company is used for the salary expenditure variable. A change in salary expenditure (Δ Salary Exp) is calculated from quarter to quarter of salary expenditure paid by the company. Return on assets (ROA) and return on equity (ROE) were used as firm financial proxies. ROA is calculated as the total net income divided by total assets and ROE is calculated as the total net income divided by total equity. The annual total value of FDI in Indonesia is used as the FDI variable. The annual minimum wage value is used as the minimum wage variable.

A quantitative analysis and a random effect generalized least squares (RE-GLS) were employed according to the data characteristics. To specify the model analysis, this study analyzes the impact of salary expenditure changes (Δ Salary Exp) on productivity (1), the impact of salary expenditure, change of salary expenditure and productivity on financial performance (ROA and ROE) (2), and the impact of minimum wage changes on foreign direct investment (3). Thus, there are three equations as follows:

$$Productivity_{it} = a + b_{it}\Delta SalaryExp_{it} + e_{it} \quad (1)$$

$$FinancialPerformance_{it} = a + b_{1it}SalaryExp_{1it} + b_{2it}\Delta SalaryExp_{2it} + b_{3it}Productivity_{3it} + e_{it} \quad (2)$$

$$FDI_t = a + b_t\Delta MinimumWage_t + e_t \quad (3)$$

This study also employed a survey method that included interviews and questionnaires to obtain thorough information. Due to the interaction with human subjects to collect the primary data used in this study, ethics approval was sought before the commencement of that phase of the research from local authorities and all subjects involved in the process of data acquisition. The industrial location in Indonesia is divided into four zones. The first zone is the industrial location of the capital city of Indonesia, Jakarta; the second zone is the industrial location of Semarang City; the third zone is the industrial location of Surabaya City; the fourth zone is the industrial location of Batam City. The interviews were conducted in Jakarta and Batam, and the respondents included business owners, managers, government officials, labor union representatives and workers; a total of 30 respondents are interviewed.

4. FINDINGS AND DISCUSSION

4.1. Minimum Wage and Labor Productivity

An increase in minimum wage is frequently determined annually in November and is applied in January the following year. The average minimum wage increment ranges from 8% to 9%, as depicted in Figure 2. This issue is discussed by various parties including the workers' union and firms' representatives. If there is a dispute between the two parties then a third party will be included for further discussion. The third party is represented by the wage agency and the government through the labor department. If an agreement is not reached in the final discussion, the workers take to the streets for a demonstration until their demands are met.

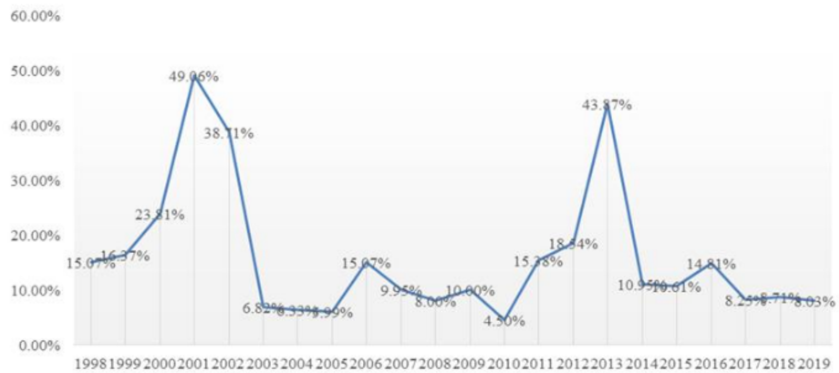
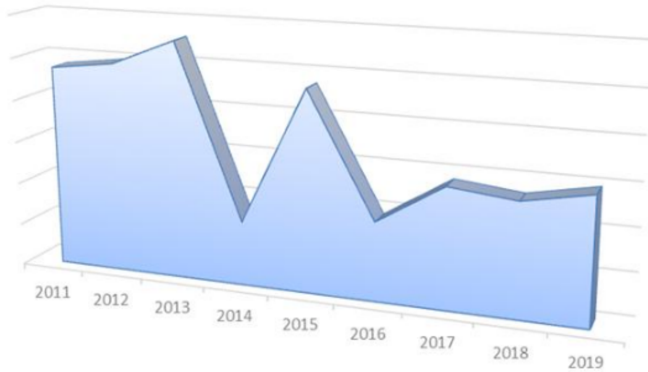


Figure 2. The Growth of Indonesian Minimum Wage (in percentage).

Regarding the rise of the minimum wage, the government has issued a mechanism regulating the minimum wage, which is outlined in the Government Regulation No.78/2015. This regulation states that an incremental minimum wage should be based on the inflation rate and the gross domestic product (GDP) in Indonesia. The formula used to calculate the increase in minimum wage is the previous year's minimum wage + [previous year's minimum wage x (current year inflation rate + applicable year GDP)]. The formula does not apply to provinces where the minimum wage is still below the standard minimum wage set by the government, thus a 5% increase will be added to those provinces annually for the next four years.



	2011	2012	2013	2014	2015	2016	2017	2018	2019
Labour Productivity	4,754	4,941	5,561	1,504	4,702	1,846	2,803	2,640	2,941

Figure 3. Labor Productivity Growth of Indonesia (YoY).

From Figure 2 (minimum wage growth) and Figure 3 (labor productivity growth), it can be seen that an increase in the minimum wage in Indonesia is not followed by an increase in labor productivity. This is in line with Sulistiawati (2012), who stated that the minimum wage has a negative and significant impact on the employment rate and it further reduces the employment of low productivity labor.

The minimum wage is a safety net and an increase in minimum wage is determined in accordance with various components that change annually and need to be adjusted accordingly. The increase in the minimum wage set by the government is a general minimum wage where sectoral minimum wages will be adjusted according to the needs of each sector. For example, the metal and chemical industries have higher sectoral minimum wages than other sectors because this sector has a higher risk of danger and accidents in the workplace. Apparently, the workers believed that the minimum wage only contained a basic salary; in fact, it includes the basic salary (75%) and the fixed allowance (25%) that is paid regularly and is not related to attendance.

In general, workers demand a standard wage, so if the government intervenes the question is whether the company can afford to pay. Companies, as providers of employment, have budget plans in place before an increase in minimum wage demand and is usually set at about 10% annually. If a company faces financial difficulty, they will delay paying the increase in wages with a note that wages will be paid as soon as the company overcomes its financial issues. Furthermore, if the cost of an employee ranges from 15% to 18%, the company is still in a solid financial position.

Based on the statistical results in Table 2, changes in labor wages (Δ wages) negatively affect productivity, but not significantly, which is not consistent with the theory that wage increases should increase productivity. This result is in line with Sulistiawati (2012); Izzaty and Sari (2013); Sungkar et al. (2015) and Nangarumba (2015). First, the minimum wage that applies in Indonesia only meets the minimum living standard needs, so an increase in minimum wage for workers is not an incentive to increase work productivity. Second, the increase in minimum wage does not only affect direct labor, but also affects indirect labor up to the managerial level, although the rate of increase in wages of indirect workers is not as high as the increase in the minimum wage set, but the value is greater than that of the increase in the minimum wage, and as a result it affects a company's overall cost. Third, the level of company compliance in applying the set minimum wage is still not optimal, because there are still some companies that bargain power with workers not to raise the minimum wage in accordance with the provisions on the grounds that the company's finances are not yet stable.

Table 2. Regression Results from Equation 1.

Variable		Productivity
Δ Salary Exp	coefficient	-0.0000301
	t-value	-0.39
	p-value	0.700

4.2. Minimum Wage and Financial Performance

Furthermore, as can be seen in Table 3, there is a negative impact of salary expenditure and changes of salary expenditure on firms' financial performance for both ROA and ROE but is not significant. In other words, this study found no strong evidence to confirm the existence of a negative impact. In contrast, labor productivity has a positive impact on financial performance, but not significant, and this finding is in line with the marginal productivity theory, which states that productivity improvements should theoretically improve company performance where the additional production costs paid are equivalent to the additional sales gained as a result. The increase in minimum wage not only raises the cost of production but also raises expenses, thereby reducing company profits. Increased productivity is not due to an increase in minimum wages, but rather due to changes in production processes, such as improved technology and the use of more efficient raw materials, so that productivity ultimately has a positive impact on financial performance (ROA and ROE)

Table 3. Regression Results from Equation 2.

Independent Var		Dependent Var: Financial Performance	
		ROA	ROE
Salary Exp	coefficient	-0.0000635	-0.0000126
	t-value	-0.15	-0.00
	p-value	0.878	0.999
Δ Salary Exp	coefficient	-1.37e-08	-1.86e-07
	t-value	-0.11	-0.07
	p-value	0.915	0.941
Productivity	coefficient	0.0000242	0.0005785
	t-value	1.08	1.31
	p-value	0.282	0.189

4.3. Minimum Wage and FDI

Regarding foreign direct investment (FDI), as seen in Table 4, it appears that the changes in the minimum wage have had a negative and significant impact on foreign direct investment in Indonesia, where an incremental increase of Rp 500,000 in the minimum wage will decrease as many as 3,497 projects in foreign direct investment. This result is in line with Sugiharto and Kurnia (2014) who found that an increase in minimum wage has a negative and significant impact on foreign direct investment in the short run and a positive and significant impact in the long run. Moreover, an increase in the minimum wage every year results in high labor costs, which causes an increase in a company's production costs. If the selling price of the company is inelastic, it will result in a profit decline or even a loss. This may lead to investment withdrawal from Indonesia by existing investors and may even cause a decrease in interest to invest in Indonesia, especially in -intensive industries. Indonesia is now no longer regarded as a country with cheap labor costs as the wages of Indonesian workers are 50% above those in Vietnam.

Table 4. Regression Results from Equation 3.

Variable		Productivity
FDI	Constant	-11195.74
	Coefficient	0.0153972
	T-Value	7.62
	P-Value	0.000

Based on the results of interviews conducted by several business owners, managers of manufacturing companies, government officials, labor union and workers, it can be concluded that an increase in minimum wage results in a multiplier effect that has an impact on several aspects, including company aspects, economic aspects, social aspects, and other aspects as discussed below.

From the aspect of a company, an increase in minimum wage results in an increase in the cost of employees who increase the company's production costs and the company's operating expenses due to the guidance of SNI certification, halal certification, eco-labeling/environmental certification. Increased production costs have an impact on rising product prices. The increase in product selling prices that are not accompanied by purchasing power and consumer loyalty will cause a decrease in a company's sales revenue. This happened to one manufacturer in Semarang where the company was declared bankrupt as of June 18, 2019. If the company does not raise the selling price of the product, it will be difficult for the company to achieve the target profit needed for survival. Not only in Semarang, in several other industrial cities, such as Batam, 27 companies, including PT Unisem Batam and PT Foster Electronic Indonesia had gone out of business as per August 2019 where the company had at least 1000 workers. It can be concluded that an increase in minimum wage harms manufacturing companies due to price competition.

An increase in minimum wage also causes an increase of value-added tax (VAT) and several other taxes that must be paid by the company and increases in other areas such as electricity and water tariffs. Not only that, but an increase in minimum wage also has an impact on the payment of health insurance (BPJS) expenses paid by the company. Furthermore, the increase is not accompanied by an increase in employee competence. There are still many prospective workers who are not ready for employment because of their lack of skills, and the government is actively issuing various regulations to improve employee competency through the Professional Certification National Agency (BNSP). As a result, the company must cover competency certification costs to comply with the imposed regulations.

As a result of an increase in the minimum wage, some firms attempt to outsmart the minimum wage rule by using contract workers. This practice contradicts Ministerial Regulation Number 19, 2012, concerning the requirements of partial outsourcing of production to other firms. It states that the main task of production is not permitted to be outsourced to other firms, and if the nature of the company's business is continual, then the company must utilize permanent workers instead of contract workers. However, for some companies that produce goods based on seasonal orders, this policy is considered financially burdensome. The middle ground that can be taken is that contract workers are still allowed to be utilized by firms, but there must be clarity regarding the length of the contract. Due to the absence of sanctions for companies that do not comply with the rules for contract workers, the regulations relating to contract workers are ambiguous.

From an economic aspect, an increase in minimum wage will certainly increase production costs, which leads to an increase in the selling prices of products. Indirectly, an increase in minimum wage will cause inflation, which will ultimately reduce people's purchasing power. As a result, a minimum wage increase is an economic stimulator for an increase in inflation, which is a component in determining the increase in the minimum wage. Thus, the increase received by workers is not to increase welfare but to cover higher prices caused by the increase in selling prices. Furthermore, the increase in minimum wage not only affects a company itself with rising production costs but also indirectly impacts the bankruptcy of companies that are unable to accommodate increases in labor costs. Bankruptcy adds to the unemployment problem and the increase in cash outflows as a result of foreign manufacturing companies moving their businesses from Indonesia into neighboring countries that have low labor costs, such as Vietnam, Cambodia, Bangladesh, and Thailand.

From a social aspect, an increase in minimum wage results in labor market imbalances and workers will tend to move to areas that have higher minimum wages. For example, there are areas where the majority of the population is looking for work where the minimum wage is higher, resulting in a small proportion of the population relying solely on tourism to keep the local economy stable. However, tourism activities provided by residents are also limited to their ability to provide these services, so investment is needed to help areas become well-managed and professional.

From a regulatory aspect (institutional and dispute of industrial relations and labor offices), there is no impact of minimum wage increases on living standards as the minimum wage increases along with the rate of inflation. Minimum wages do not increase but merely adjust to the cost of living. Minimum wage adjustments are necessary because market prices are not controlled. Therefore, the role of the government is crucial to balance the cost of basic needs. The related government departments, such as the ministry of trade, ministry of agriculture and other related ministries, have to jointly exercise control over market prices of basic needs. The problem is the government does not have specific regulations regarding market prices, and as a result, it is difficult to exercise consistent and strict control.

There are two categories of opinions resulting from the interviews – that wage increases have a positive impact on labor productivity, and that increases in labor productivity will have an impact on wage increases. The opinion that wage increases have a positive impact on productivity is based on the reason that with increasing financial compensation, employees will be dedicated and loyal to a company. While the underlying opinion that productivity will increase wages if a person can reach, or even exceed, the target set by the company, then the company will automatically reward employees financially.

If the workforce is not ready for employment or is of low quality, then the human capital contribution of the workforce to the company will be low. For this reason, we need leadership, motivation and commitment to developing human resources. If a company considers that the policy for increasing minimum wages is not matched by policies to increase labor productivity, then wage increases will not be a stimulator for increased productivity. If a company is aware that labor is an intellectual asset but policies do not encourage an increase in productivity, then human resources eventually become a burden for the company. Therefore, a balanced policy is needed to benefit all economic actors.

Finally, according to the results, it is suggested that the government should impose strict regulations and compliance on minimum wage policy, should regulate the time duration for raising the minimum wage periodically, for example, every two years, should provide an exception for companies that have incurred a financial loss within the previous two years to apply the minimum wage rise, and should implement synchronized policies among related departments, such as the ministry of trade, the ministry of agriculture and other related ministries in conjunction with the minimum wage policy, to jointly exercise control over the market prices of basic needs.

5. CONCLUSION

In conclusion, except for FDI, productivity and firm performance are affected negatively but not significant by the changes in labor wages. The result from this study indicates that raising the minimum wage has both positive and negative impacts, thus before considering a rise, all parties involved in determining the minimum wage should conduct a proper survey from all parties involved. Additionally, the government, in particular, should consider to apply a regular rise but not annually. The rise could be set every two or three years according to the economic and business conditions. Increased the current skills constraints of low wage workers and changing the mindset slacking of a worker after being conferred as full-time workers are necessary to offset the rise in the minimum wage thus it can support the firm in increasing the firm profitability.

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