

WILL MINIMUM WAGE TRANSLATE INTO HIGHER PRODUCTIVITY? A CASE ANALYSIS OF MANUFACTURING FIRMS IN MALAYSIA

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Abstract

Minimum wage often used as a mechanism to enhance workers' welfare, specially the unskilled workers. The purpose of this study is to investigate the impact of minimum wage legislation to the selected SMEs. Does this policy lead to higher productivity? Will firms undertake cost passing measure? Other aspects include workers commitment, errors in the workplace and hidden costs involved. The results reveal that whether minimum wage enhance productivity is relies on the type of production method. For capital intensive firms, minimum wage does not have positive impact on the productivity. The total production are based on the demand and the full capacity of the machines. As for firms producing quality products, minimum wage has less impact on productivity as skills are crucial, therefore, training and development will be the key factor in determining productivity. Overall, minimum wage does contribute to higher commitment of workers and reduce over reliance on foreign low-skilled workers.

Keywords:

Minimum wage, productivity, manufacturing firms, costs, workers' commitment

1.0 Introduction

Policies on minimum wage is not something new, it has been implemented in many countries for decades. Minimum wage is the minimum amount of pay an employee should receive, according to the governmental legislation. Most of the time, it serves as an anti-poverty device. It fulfills the basic physiological needs of workers, as highlighted in the Maslow's hierarchy of needs.

The country which first introduced minimum wage was United States (US). The U.S. Congress took the first move to set a minimum wage in the Fair Labor Standard Act of 1938, guaranteed the unskilled labors to meet the minimum subsistence needs. In 2007, more than 1000 business owners and executives in US signed a 'Business for a Fair Minimum Wage Statement', in order to increase the minimum wage from \$5.15 to \$7.25 (Raise the minimum wage, 2007). It was succeed in the year of 2009, U.S. minimum wage was \$7.25 per hour according to the federal law.

Today, there are 192 countries which implement minimum wage, mostly with a single pay rate; whereas, some have more complicated pay rates, for example, India has 1200 wage rates within the country herself.

Due to the different laws and enforcement mechanism, it is not an easy task to compare minimum wage of different countries, some setting are based on regions, while others do it by industry. Also, some countries have different minimum wages based on age differences. Nevertheless, minimum wages can still be used to compare workers' welfare and living standards in different countries. According to the list of *The Richest* (2013), the top 10 countries with the highest minimum wages (per annum) are: Netherland, Luxembourg, Ireland, Belgium, United Kingdom, France, Canada, New Zealand, San Marino and Switzerland. In Netherland, workers with at least 23 years old will have a minimum of €66.77 per day. Those between the ages of 15 to 22 will have a much lower rate but, they are complemented with a number of mandatory bonuses and benefits.

Although labor productivity in the developed countries had increased more than twice as much as the average wage, there is a smaller piece of pie for workers across the world, due to technological progress, trade globalization, the expansion of financial market and decline of union density (International Labor Organization, 2013).

1.1 Minimum wage in Malaysia

Minimum wage in Malaysia was introduced in 2013, with minimum of RM900 per month of wage for West Malaysia and RM800 for East Malaysia. This minimum wage brings benefit to 3.2 million of workers in the private sector (CIMB, 2012). When this policy was first introduced, it triggered huge controversy among small and medium enterprises (SMEs). Employers through SMEs Associations reflected strong opposition, as they argued that the production costs would increase due to this policy (Joyce, 2013). Indeed, production costs will increase for firms, however, it is time for employers to ponder on their direction in the future, should they continue to rely on unskilled workers and low cost products?

Labor market in Malaysia has two main characteristics: high percentage of low skilled worker (70% of the labor force); over-reliance on low cost, unskilled foreign workers (CIMB, 2012). These two characteristics are definitely not good signs for Malaysia, as they do not encourage employers to improve the quality of products and services. In addition, employers over-rely on foreign workers to maintain low operational costs.

1.2 The purposes of minimum wage

There are various purposes of implementing minimum wage, one of them is to materialize a decent income for workers. In Malaysia, approximately 34% of workers are receiving the salary below RM700 per month (CIMB, 2012). Thus, minimum wage is definitely a good news to the low income workers. For example, 43% of the low-paid workers in the agriculture sector will have a pay raise due to this minimum wage policy (Bank Negara Malaysia, 2012). In addition, it prevents workers from exploitation.

Also, this is part of the social justice in the society. It is not just a wage floor for workers, but, as an instrument to increase the welfare and standard of living for workers. With a better pay rate, workers' purchasing power will be enhanced, they can spend on education or better health care, which promotes better living standard.

With this minimum wage, it is expected that the over-reliance on unskilled foreign workers will be reduced by 0.4-0.6% (CIMB, 2012). Currently, there are about 1.6 million of foreign workers in Malaysia, which come from Indonesia, Nepal, Myanmar and Bangladesh. The reasons of using foreign workers can be summed up to two: low cost and they can cope with 3D (dirty, dangerous, difficult) jobs (Yeo & Joyce, 2014). However, recruitment of unskilled migrant workers do not contribute to skill formation, they thwart the wider use of impair productivity growth and,

produce shoddy outputs (Nayarana & Lai, 2005). Therefore, it is time for employers to create new value added to their products by offering quality goods and services.

Furthermore, with this minimum wage, employers can recruit more semi-skilled workers, improve their quality and efficiencies in order to sustain in the long run.

Apart from that, with minimum wage, there is greater incentive to work, the quality of work and productivity can be improved. With a higher pay, it is generally expected workers to do their jobs well and improve their efficiencies. Through better work ethics, efficiencies and less errors, the outcome will be quality work and higher productivity.

Better wages aimed to boost productivity growth, which show a positive effect for employers. However, there are pros and cons of this policy. Those who are against this policy dispute that it intervene the labor market wage setting, rise in business cost and brings about some inflationary impact, as firms will undertake the cost-passing measures.

While some firms invested in new technologies to reduce the impact of raising costs due to minimum wage, some passed along the labor cost to customers by raised prices. For the labor-intensive firms, the immediate respond is cost-passing measures (Bank Negara Malaysia, 2012). Thus, the government needs more strategies to assist these firms, in order for their businesses to transform into quality oriented, rather than low cost oriented.

1.3 The significant of productivity

Productivity is the average measure of the efficiency of production. It is critical for the competitiveness and profitability of organizations in the long run. A firm with productivity and competitive advantage is assured of its sustainability in the future.

Productivity indicators measure the effectiveness and efficiency of a given input in generating output (Spring Singapore, 2011). Labor productivity is the value added per worker. According to Spring Singapore (2011), value added does not raise as a result of paying out of wages and other expenses, in fact, an increase in wages alone will not increase valued added, as expenses have increased.

Having said this, lowering wages to increase profit is always not the first option of employers, as this tends to create industrial disputes with workers, or causing lower morale among workers. On the other hand, the employers can't reduce the investment in capital in order to reduce operational costs, as this often have negative impact on the efficiency of operation and eventually profit of the firm will be affected.

One constructive way to get a balance between the needs for profit, wage rate and capital investment, is to increase value added through productivity. This is achieved through cooperation from workers and optimal use of capital (Spring Singapore, 2011).

1.4 Objective of this research

Majority of the studies related to wage and productivity are looking at the macro aspect, especially secondary data, which was collected from the relevant statistic department. Rarely there is analysis done based on primary data from the manufacturers, through face to face interview with manufacturers. Hence, this research is to examine the impact of minimum wage to individual firms, particularly firms which focus on low costs products using unskilled workers.

This research proposes to answer the questions below:

1. To examine the impact of the minimum wage on utilization of labor usage.
2. To investigate the impact minimum wage on workers' productivity in these firms.

3. To study the cost-passing measures undertaken by the firms due to higher operating cost by the implementation of minimum wage policy.
4. To determine the impact minimum wage legislation on workers commitment, errors and hidden costs involved.

2.0 Literature Review

2.1 Minimum wage and productivity

There are various studies related to productivity, which measure based on single factor or multi-factors. Labor productivity and capital productivity are two common factors used as single factor productivity measures. Labor productivity usually measure output per worker; or output per working hour (Organization for Economic Co-operation and Development, 2001). As for capital productivity, it measures the output (or return) on capital invest based on gross output or value added output (Organization for Economic Co-operation and Development, 2001). Kampelmann & Rycx (2012) match employer-employee panel data to examine occupational productivity-wage gaps. They conclude that occupations play distinct roles for remuneration and productivity. Whereas, the research of Fuss & Wintr (2012) evaluate the elasticity of firms employment and real average labor compensation to total factor productivity. The results reveal that, short run elasticity of labor compensation and total factor productivity are positive but relatively low. The results also support centralized wage bargaining at the sector level, in order to adjust wage rate according to aggregates changes.

In contrast, Frick et al. (2013) find that performance based pay will have negative impact on productivity as well. The authors argue that, when performance based pay is combined with team work, absences increase; hence, performance based pay can create hidden costs for manufacturing, and do not necessary increase productivity. This conclusion is partially supported by another research done by Gomez et al. (2007), which show that the linkage between wages and productivity varies over time. Firms with slower productivity growth exhibit a high short run wage productivity elasticity in Spain.

2.2 Wage and productivity in Malaysia

Various studies had done on this topic. Majority of the studies are quantitative, focusing on manufacturing sector. A research of Chia et al. (2012) investigate the productivity in the construction industry, using added value per worker and output per worker as measurement. Another research done by Ahmed (2009) studies the production function using capital, labor, raw materials and time as inputs. It is analyzed using the nonparametric translog-divisia index approach. The results reveal that the contribution of capital input and labor input to the output of annual productivity growth are positive.

Kim & Shafii (2009) also investigate factors determinants of total factor productivity growth manufacturing firms using decomposition analysis. Four variables are selected, namely: training cost, skill level, education level and, pay scale for skilled workers. Their findings show that the quality of employees (these include job training; share of skilled workers; workers with university degree and wage for skilled workers) is the most significant determinants of growth.

Wu & Ho (2003) compare the competitive advantage of Singapore with China and Malaysia. The authors compare labor productivity gap between Singapore and China; as for Malaysia, is to evaluate the technology intensive segments with Singapore. Dogan et al. (2013) have also done a research on the productivity in manufacturing firms with different operation scales. It is found that large firms tend to be more productive, compared to medium or small firms.

In brief, most studies show a positive correlation between wage and productivity, although each study added in different inputs as determination of productivity growth. These findings are aligned with research of International Labor Organization (2013), which show that countries do experience higher productivity with better pay.

2.3 Wage and morale

Besides productivity, wage and reward system will also influence the morale of workers. Many empirical studies had proven that workers with better performance are differ from their co-workers in terms of their structure of their orientation and motivations. The study of Selart et al. (2008) examine the effects of rewards on self-regulations, intrinsic motivation and creativity, the respondents consist of 31 women and 11 men. The results provide little support for the negative effects of performance rewards on motivational component. Another research by Rerbov (2012) indicates other factors, which will influence performance, namely: job position, career stage, working environment and characteristics of enterprise.

According to Forbes (2013), recruiting minimum must be present in order for workers to be motivated, these factors include: working environment, job security etc. Apart from that, the nature of work itself will influence the level of motivation, for example, challenging and achievable jobs are more attractive than routine jobs. In addition, low compensation often create vengeful employees, whom put too much focus on the unfairness rather than their jobs.

There are many theories which had touched on this issue of rewards and employees motivation, include Herzberg's two factor theory; which classified two motivational factors into hygiene factor and motivation factor. Hygiene factors cover the extrinsic rewards, whereas, the motivation factors are the intrinsic rewards. Other related theories include Maslow's hierarchy of needs, expectancy theories, etc. All these theories are to examine factors, which influence employees' behavior, motivation and their performances.

2.4 Wage and hidden costs

Minimum wage, not only has the potential to yield greater productivity, it could encourage greater loyalty of consumers who prefer to shop at firms where workers are fairly treated. Firms need awareness about the high cost of low wages. Wayne (2006) compares the pay scale in Wal-Mart, Sam's Club and Costco, which compete on low price merchandise. Comparatively, Costco is more generous in terms of wages and benefits, as a result, Costco has loyal and productive workforces in all of the retailing. Costco manages to generate more sales with 38% lesser number of employees, compared to its competitor, Sam's club (Wayne, 2006). Costco's turnover is 17%, which is much lower than Wal-Mart at 44%. Therefore, low wage may not translate into low costs in the long run.

Apart from turnover rate, other hidden cost which might occur are like theft, breach of trust, bad working attitudes, not able to retain skilled workers, etc.

3.0 Methodology

This study is a descriptive and exploratory study. Most studies are to look for relationship between productivity and wage using secondary data at a macro level, analysis these data using econometric or other quantitative method. Hence, this research explores various in-depth aspects of minimum wage, directly from the manufacturers. Respondents in this study include manufacturers from sawmill (firm A), food ingredients (firm B), electrical appliances (firm C) and furniture (firm D). All these firms are small scale manufacturers with less than 100 workers. These firms are selected, as they have decades of experiences in manufacturing sector, with the oldest of 45 years

and the youngest 20 over years of experiences. Although the findings can't generalize the manufacturing sector, they do somehow reflect the situation of small scale manufacturing in Malaysia.

4.0 Findings and discussions

4.1 Minimum wage and the utilization of labour usage in the production

Out of these firms, only firm A utilizes the labour usage after the implementation of minimum wage. Previously, it employed more unskilled labours and now it restructures the workforce due to increment in labour cost.

Firm B adopts a significant number of professionals in the production line, less unskilled workers are used. Thus, increment in labour cost results from the minimum wages has lesser impact to the company. Utilization of labour usage is not applicable, as the restructuring does not exist. Similarly, firm D needs to use more trained workers in their production, this minimum wage policy does not affect the firm.

On the other hand, workers in company C are mostly foreign labours with lesser skills. They comprised approximately 70% of the total workforce. It is difficult to replace the least skilled workers with skilled workers immediately, as the skilled workers are not willing to work in SME industry with lower paid.

Therefore, we can make a statement that, firms who rely more on foreign workers or low skilled workers will be affected, as the costs of operation had increased. In order to overcome this problem, firms can recruitment more semi-skilled workers, as they need to give higher wage, hence, the over-reliance on foreign workers can be reduced.

As for firms which already using skilled workers as the key workforce, minimum wage will not affect much as workers' pay are equivalent to minimum wage or higher than minimum wage. Research of Wu & Ho (2013) state that ASEAN countries, including Malaysia might lose the price competitiveness in light manufacturing, as China has more potential in developing into a high labor productivity and low wage manufacturing sector. Thus, it is timely for local manufacturers to focus on skilled workforce in order to differentiate their products through quality, and not low cost. Minimum wage policy will further strengthen their effort into this direction by using more semi-skilled workers.

From the findings, firms have indicated that minimum wage policy encourages them to invest in energy efficient technologies. This will definitely reduce the reliance on foreign workers.

4.2 Minimum wage and productivity of workers

The charts below indicate the total output and average output of firms after the implementation of minimum wage.

Firm A

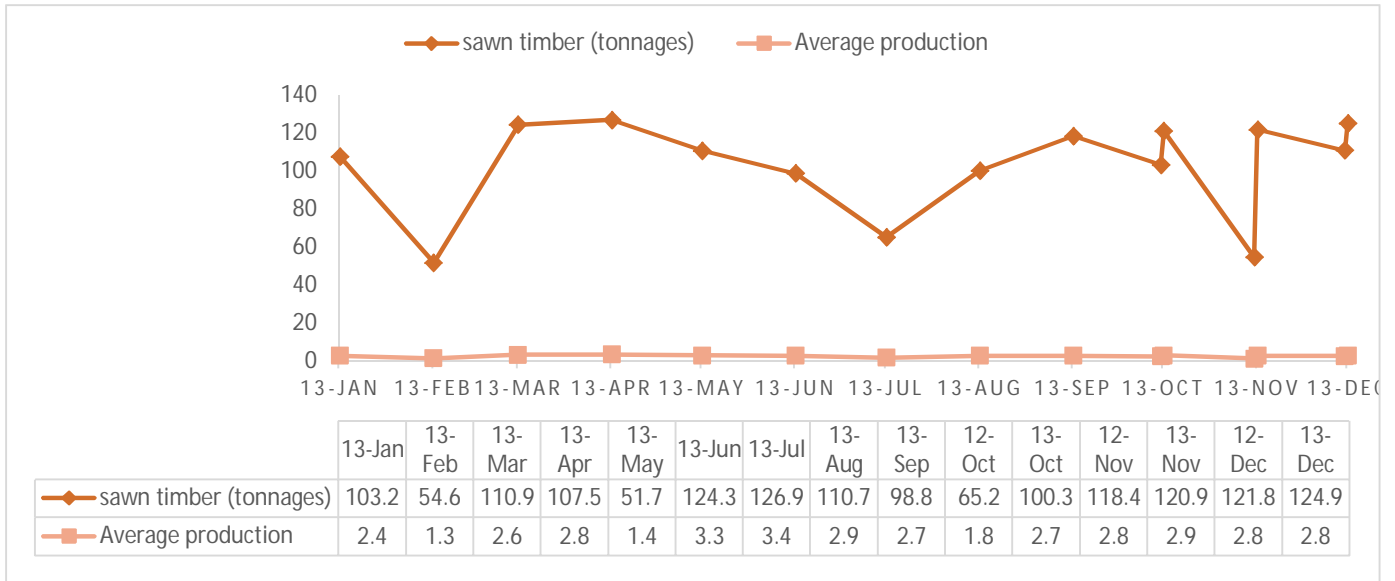


Figure 4.2.1 Total production of sawn timber (tonnages) and average production of sawn timber (tonnages) in Firm A

Firm B

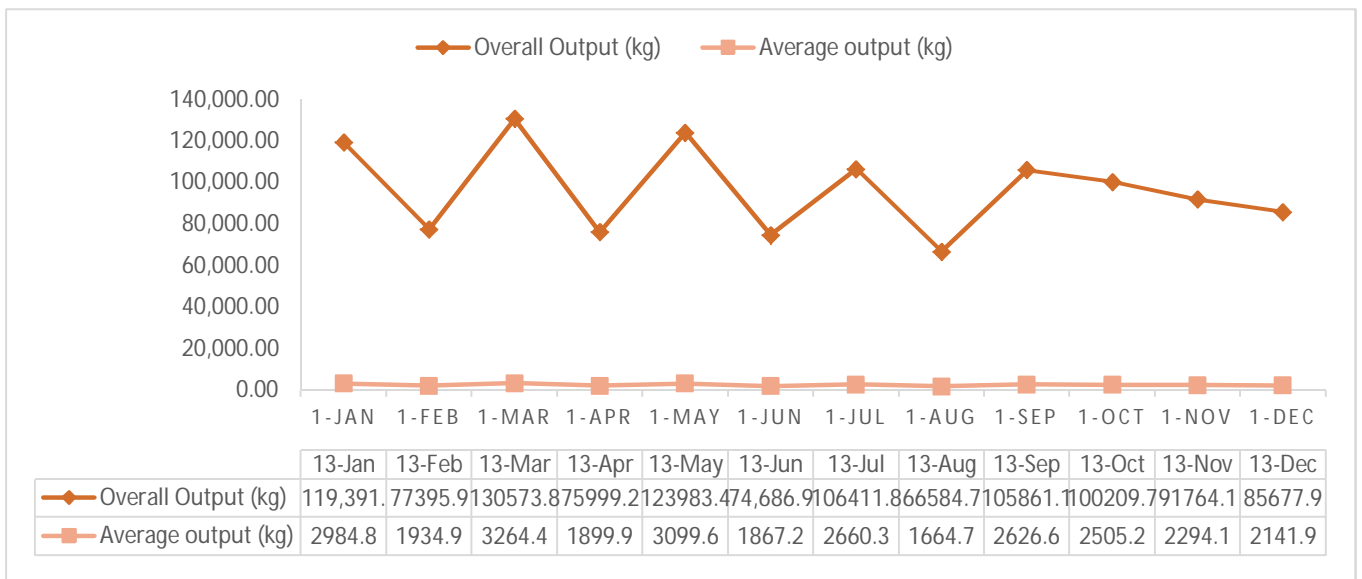


Figure 4.2.2 Total output of food ingredients (kg) and average output of food ingredients (kg) in Firm B

Firm C

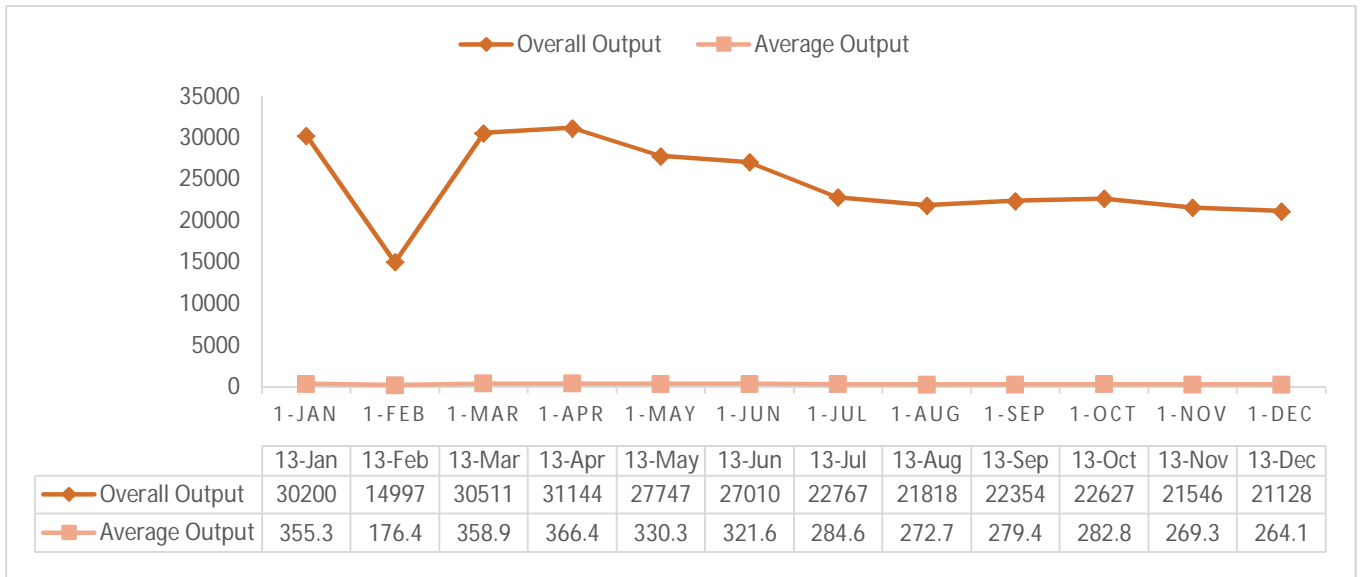


Figure 4.2.3 Total output of electrical appliances (unit) and average output of electrical appliance (unit) in Firm C

Firm D

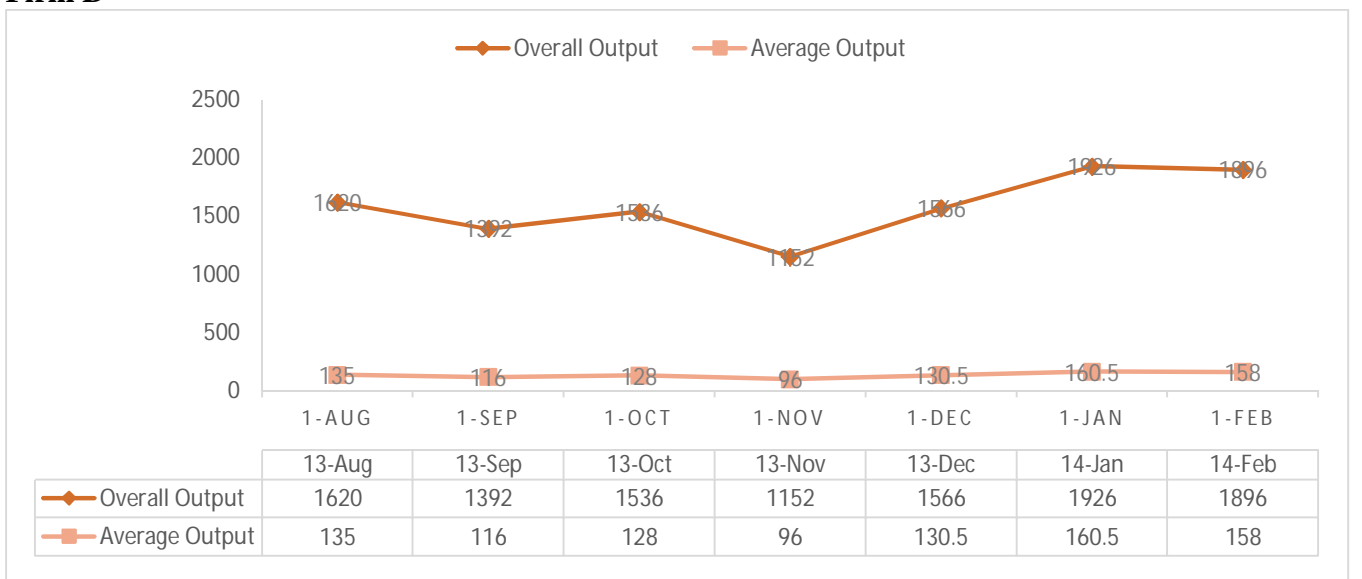


Figure 4.2.4 Total output of chairs (unit) and average output of chairs (unit) in Firm D from August 2013-Feb 2014

Findings for all firms reveal that there aren't stable unit of production for all months. Some of the months, the total product are high and, otherwise in other time. Average output (mean output) indicates the basic measurement of productivity by measuring the average product for each workers. Overall, minimum wage in these firms do not affect the firms' productivity. The total production of these firms are basically rely on the demand of the product. If the demand is high, they will produce

more production. This result is contradict with the studies of Ahmad (2009); Kampelmann & Rycx (2012), etc, which conclude that productivity and wage has a strong link within one another. However, this result is supported by Spring Singapore (2011), which highlights that wage alone is not able to increase productivity.

Having said this, all firms agree that minimum wage will motivate workers with better working attitudes, more co-operative and efficient. This situation applies to workers who are benefitted from the minimum wage. For firms which produce more quality product or required complex production, training and development will be the key factor in determining quality of work. Increase in pay alone is not enough to produce desirable organizational outcomes. This result is aligned with the study of Kim & Shafii (2009), which talks about the importance of training.

Apart from that, the total production is also rely on the capacity of the machines, so long as the demand of product is below the capacity of the machine, the firm will produce more units. Another reasons which affect their productivity is season. Malaysia is a multi-racial country, demand for certain products can increase in certain seasons or festive seasons, specially products of food & beverages. Hence, the production will increase if the demand for product increase during that festive season. In most cases, production will increase in advance of about 2 months before the festive season, in order to fulfill the market demand. However, it is rare to have studies which discuss the relationship between productivity and festive season.

Further from that, days of vacation for certain festive seasons will also affect productivity. If the firm celebrates certain festive seasons, the production for that particular week/month will decline as firm will be closing for longer holidays. These trends are indicated in the production line of the respondents, most of them have low productivity in February, as majority of them take leave for the celebration of Chinese New Year. Again, very few researchers highlight total productivity with workers preferred vocation period in Malaysia.

4.3 Minimum wage and the cost passing measure

Some people claim that minimum wage hike is maximum stupidity, as firms tend to pass the costs to consumer. Moreover, it might cause the problem of unemployment. For example, minimum pay raise to USD10.10 is not helpful to 3.37 million of American who are jobless (French, 2014). However, in the case of this research, firms clarify that they will not passing the costs to consumer, as this will cause the demand for products to decline and, further damage the organizational performance.

4.4 Minimum wage and the workers' commitment on work

All respondents have the same perceptions that the minimum wages can improve the workers level of commitment on work. Company D is the latest firm among the others to implement minimum wages. It is yet to witness any decline in workers commitment. Indeed, the implementation of minimum wages inspire the workers to put more efforts on their tasks. This result confirms the statements of Selart et al. (2008) & Rerbov (2012). However, firms shouldn't be content with minimum wage alone, as Forbes (2013) suggests the presence of other factors to motivate workers, these include: working environment, job security, job task, etc. Therefore, firms need to ensure the presence of other motivational factors in order to maintain long term workers' commitment.

4.5 Minimum wages and errors of workers on work

Firms A and C agree that better wage helps to reduce workers' errors, in contrast, firm B & D do not agree with it. Firm A and C agree that minimum wage have somehow increase their

morale, hence, they are more focus in their work and reduce errors made in work. Firm B & D find that training and development are the solutions to reduce error. These different conclusions are adequate in their own contexts, as firm A & C heavily rely on machinery, workers only required to monitor the production process, very minimum skills are needed. Whereas, for firm B & D, production required some level of skills from workers in completing the job, therefore, merely extrinsic rewards are not able to reduce errors, instead, training and development play an important role in enhancing the performance of workers. This result is similar with the conclusion of Kim & Shafii (2009), that the key factor for workers' performance is training. They find that quality of employees (which include job training) is the most significant determinants of productivity growth

4.6 Minimum Wage and Hidden Cost

Although the results in these case studies reveal that their organizational performance is not directly affect by minimum wage. Nevertheless, there are many local manufacturers who recruit foreign workers to maintain low operational cost. Manufacturers need to aware of the hidden costs of low wage, as stated by Wayne (2006), through comparing the case of Wal-Mart and Costco. Wal-Mart, not only suffers from high turnover rate, it also encounter frequent strikes from workers, the most recent strike happened in 20th November, workers in Wal-Mart claim that many can't feed their families due to low wage (Cleveland, 2014). Currently, 600,000 workers in Wal-Mart are forced to transfer to part time jobs (Tabuchi, 2014). Decrease in pay and compensation will surely reduce the morale and work performance of workers. These types of hidden costs can happen in Wal-Mart and any other firms.

Not only that, low wage could have other potential hidden costs in the long run, e.g. job withdrawal when workers are not fully focus on their jobs. Workers may keep a distant physically or psychological, as they feel they are not having equitable pay. In more serious case, workers may have some forms of misconducts, such as problem of theft or reveal of firm's policies to competitors. Firms can't afford to bear these hidden costs, as these bring great damages to firms. Therefore, among all pros and cons of minimum wage, apparently, positive impacts of minimum wage are more prominent.

5.0 Conclusion

Does minimum wage increase productivity? It rely on the types of production the firm is involved. For capital intensive firms which heavily rely on machinery using low skilled workers, minimum wage may not have positive impact on the productivity, as the total product is merely depend on the demand of the product and the capacity of the machines.

For firms which produces more quality product, required the use of skilled workers, minimum wage has less impact on productivity as skills are crucial. Therefore, training and development will be the key factor in determining the productivity. Minimum wage alone is not sufficient in bringing positive changes.

Minimum wage policy will affect the level productivity in the context of firms using low skilled workers in labor intensive industries, such as food and beverage, construction work, agriculture, etc. In essence, SMEs in Malaysia have the urgency to focus more on high quality products using skilled workers and, not relying on low cost products, as other developing countries are offering much more attractive low costs products, such as China, Thailand, Laos, etc. It is crucial for SMEs to maintain their competitive advantages before they lost their global market share. Therefore, minimum wage policy serves as a transformation point, by offering higher wage to attract more semi-skilled local workers. With better labor workforce and appropriate training, SMEs will be able to sustain in the long run through improving the quality of their products. Apart from

that, minimum wage policy is able to reduce the problems of over reliance on foreign low skilled workers.

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