

## **FACTORS AFFECTING LABOR PRODUCTIVITY IN MALAYSIA: AN OVERVIEW**

**Razak, Mohamad Idham Md** 

Faculty of Business management, Universiti Teknologi MARA, Melaka, Malaysia  
iedham@melaka.uitm.edu.my

**Osman, Idris**

Faculty of Business management, Universiti Teknologi MARA, Melaka, Malaysia

**Yusof, Mohd Azmil Mohd**

Faculty of Business management, Universiti Teknologi MARA, Melaka, Malaysia

**Naseri, Roszi Naszariah Nasni**

Faculty of Business management, Universiti Teknologi MARA, Melaka, Malaysia

**Ali, Mohammad Nazri**

Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA, Johor, Malaysia

### **Abstract**

*The purpose of this study was to determine the factor that affecting labor productivity in Malaysia. The variables consists motivation, management support, supervision and technological are stated as independent variables for this study. The finding showed that only three variables have significant relationship which are motivation, supervision and technological. Thus, these variables consider the factors that affecting labor productivity in Malaysia. Meanwhile, one variable that showed negative relationship is management support which considers not the factors that affecting labor productivity in Malaysia. 150 sets of questionnaires were distributed randomly. The result of the study presented in this research agrees that motivation, supervision and technological are the factors that affecting labor productivity. This study can be seen as a foreword to a more detailed study to be carrying by future research on the issue of labor productivity in Malaysia.*

*Keywords: Motivation, Management Support, Supervision, Technology*

## INTRODUCTION

Time passed by and we become more globalize. Globalization is linked with labour productivity through various ways including trade liberalization or open economy, exposure to new technology and FDI (Rahmah Ismail et al., 2011). Many nations nowadays have integrated across national boundaries, societies grew larger and more complex and labor became more specialized. The country has a high level of labor productivity benefiting from capability to face global trade barriers compared to other less efficient countries (Rahmah Ismail et al., 2011). Furthermore, expertises are born and great at producing something. Workers became more productive and expert at doing few things or even just one thing and gain profit regards to what they had produce.

In addition, according to Mahamid (2013), any improvement in labor productivity will contribute a high deal to the project outcomes improvements because they plays a core role in determining the financial success of construction projects. In order to survive in the global market and stay competitive labor should keeping their productivity high. Furthermore, labor productivity is not only important at micro level but also one of the key drivers for economic performance and directly affects the welfare of societies as a whole (OECD, 2011). The effects of good productivity is not only affects a company performance as a whole, it is also influence standard of living of society through increase in income per capita. There are three ways that a nation can gain in rising in living standard per capita consumption which are a bigger proportion of the population can go to work, a country can borrow from abroad or sell assets to foreigners to pay for extra imports and nation can boost productivity either by finding new ways to increase efficiency or invest in a bigger share of national income in plant and equipment (Norashikin, 2007).

However, many of labor nowadays do not concern about their productivity as long as they get payment on time but some of the labor become unproductive because of salary problems such as delay in payment, cut down of overtime payment and gain small salary by overloaded of work. Superior management should analyze this problems and give support to their workers by motivate them. Some of the worker become low productivity is because of their attitudes such as come late to work and going back early. The reason why they are not afraid to bring these bad attitudes to work is because of lack of supervision. Company shall have efficient labor productivity in order to become competitive and globalize. It is important for companies to maintain its competitiveness while producing good productivity labor for them to sustain in the industry. Norashikin (2007) among of the industry's key performance measures includes of labor, productivity, efficiency and employee turnovers. Most of the past research focused on

calculating productivity in construction industry, but, this paper focus on the factors that affect the labor productivity as a whole.

The competitiveness of an industry is often linked to its productivity (Drucker, 1974, Porter, 1990, Helmut Hergeth, 2008). Globalization is important for firm to have greater integration between economies through trade and investment which will bring opportunities to outsource production into global scale. Many research have been done and produce the factors that affect productivity, however, there are still plenty of unknown problems that need to be further investigate even in developed countries (Makulsawatudom & Emsley 2002, A. Soekiman et al., 2011). Policies to increase productivity is not necessarily the same in every country and Polat and Arditi (2005) have showed that the critical factors in developed countries differs from that in developing countries (A. Soekiman et al., 2011).

Many studies have identified factors that affect labor productivity, but, those studies are mostly focuses on construction industry. We will implement these factors into general industry as a whole. Attar on his study stated that factors that affect general all are lack of skill, supervision delay, poor instructions, poor quality of labor, supervision factor, labor shortages, working time factor, organization factors and improper training. According to research done by Thomas U Japanese products are often high in quality and most of Western manufactures products such as automobiles and electronics that manufactures in Japan have lost their market shares because Japanese industries are more productive compared to Western. It shows that labor productivity is important in order to be more competitive.

Furthermore, study have shown productivity is important for an organization to be more competitive, maintain strategic and financial health, achieve set goal and meet stakeholder value propositions (Bui Trung Kien 2012). Thus, he concluded that understanding important factors that affect the fluctuation of labor productivity is very necessary to improve the efficiency. Every firm has different structure which should be concern when facing an economy problem as a whole. Thus, many factors should be concerned in determine declining or rising in labor productivity. According to Arnar Ingason (2013) firm size, what industry are in, the innovation model they follow and output generation need to be examined are factors that should be examine effectively. Gundecha (2012) stated that it is necessary to understand the effects of different factors on labor productivity compared to other project cost components labor is more variable and unpredictable. Increasing productivity can reducing labor cost in a direct proportion (Gundecha 2012). Hanna et al. (2005) cited by Gundecha (2012) said that it will also either reduce a project's profits or give more benefit.

According to Goran Askeljung, staffs is frustrated due to too much work given and unable to manage it well and therefore they often complain about being overloaded with tasks

and seems too busy to reply or act on most of the e-mails they get but important e-mails with requests for a reply are ignored. However, managers complain that assigned tasks are not getting done. So, it been concluded that knowledge worker productivity in large companies is low. Anuradha Rangan (1986) stated that in Indian government sectors management have problems on top managers or administrators pay much attention to procedural aspects and hence productivity becomes the least priority. The objectives of the public organization are most related to accomplishment of activities compare to achieving good results and they also put limited effort to create competitive environment. Therefore, problems in low labor productivity started to arise.

United States now faces two productivity problems which is since 1973 its productivity growth has slowed sharply and although in 1990 U.S. productivity is still the highest in the world by a wide margin—\$45,918 of GNP per worker, 25 percent ahead of Japan and 35 percent ahead of Germany—its productivity growth trailed that of other nations in most years since World War II. Labor is now becoming more important than any valuable asset due to rising in labor cost (Norashikin 2007). There are several problems that dampen workers morale as well as affect their productivity such as low salaries, irregular promotional structure and lack of recognition of workers achievements (Joyce Essel 2012). While, in construction projects poor labor productivity will affect cost and time overruns in the projects (Mahamid 2013). Thus, this paper want to identify what are the most important factors that affect labor productivity.

## LITERATURE REVIEW

Productivity can be a ratio to measures how well an individual, organization, industry and country converts input resources such as labor, materials, machines into goods and services (Amina Hameed, 2009). Gundecha (2013) defined the productivity as an average direct labor hours that required installing per unit material. Referring to Eng. Zeyad Ahmed Abo Mustafa (2003) defines productivity as human and financial resources key measurements of utilization because it indicate an efficient use of available resources as well as converts it into noticeable results. International Labor office (1996) (cited by Eng. Zeyad Ahmed Abo Mustafa,2003) explained the productivity as a comparison between the result you get out of the project on how much you have put into the projects in terms of material, machinery, manpower or tools. According to Bui Trung Kien (2012), stated that “productivity defined as the ratio of outputs to inputs. Productivity = Outputs / Inputs

Where, the examples of outputs are revenue generated or value added, units or dollar value of product or service. The examples of input are units or dollar value relating to equipment, labor, materials and capital. Thus, it is important to specify the inputs and outputs to

be measured when calculating productivity.” According to Merriam-Webster (cited by Casey Jo Kuykendall) productivity defines as the quality or state of being productive. Main causes that affects cost and time overruns in construction projects is poor labor productivity (Ibrahim Mahamid, A. Al-Ghonamy & M. Aichouni, 2013). Serafeim polyzos and Garyfallos Arabatzis (2005), determined the term labor productivity by comparing labor cost with the total efficiency of labor, which represent amount of produced products. According to Liu and Ballard (2008), by Ibrahim Mahamid (2013), stated that labor productivity is important in determining financial success of a project. According to Freeman (2008) cited by Bui Trung Kien (2012) “Labor productivity is equal to the ratio between a measure of input use (total number of hours worked or total employment) and a volume measure of output (gross domestic product or gross value added).” Labor productivity = volume measure of output / measure of input use.

Motivation is one of the important factors that company should concentrate in order to increase their labor productivity. Motivation defined as why people tend to react or behave in a certain situation (Joyce Essel, 2012). Unmotivated labor will cause a high turnover of employees, absenteeism, tardiness and disciplinary problems (Bui Trung Kien, 2012). Thus, workers will be motivated if their needs are addressed as project goals are reached (Joyce Essel, 2012). Level of motivation and the effectiveness of the workforce will also affect the performance of the labor productivity (Joyce Essel, 2012). According to Fiouz Fallahi et. al (2011) there is two models of wage-efficiency known as Shirking Model and Give Exchange Model that being studied to determined labor productivity. Shirking Model determine that increase in wage level therefore will make labor force more motivated to keep their jobs and thus will try to increase level of their productivity as to avoid being deported and the give exchange model determine that high wages change the relationship between employer and employee. Studied shown that for the industrial sector in China, the productivity change is affected by wage more than human capital (Fiouz Fallahi et al., 2011). Setting priorities for improvements, promote a supportive labor-management relationship, provide cost efficient and easy to use methods and cut costs while increasing profits (Alfred, 1988; Mahesh, 2012) are examples of good management skills which is also include of adopting a performance based management viewpoint (Mahesh, 2012). Furthermore, in order to maximize productivity management must value its important asset, namely people. Enshasi et al (2007), Homyun Jang et al (2009), Ailabouni et al (2006), Bui Trung Kien (2012) stated that the important elements effect to Labor Productivity in management including bad leadership skill, poor relations between labor and superintendents, and lack of labor surveillance. Thomas U in his research indentified that declining in productivity cause by ineffectiveness of management. Through his study on Japanese cultures also indicated that top management must realize and

accept the improvement of productivity via people is a long-term investment with the associated entrepreneurial risks.

According to Sinan Aral et al. in order to conduct due diligence and aid decision making, databases, document repositories and intranets that contained information is used. Task-technology fit depends not only on the match between technology and its application, but also on the skills of the individuals using the technology (Goodhue & Thompson 1995). A strong empirical relationship between IT use and skill at the worker (Kreuger 1993), firm (Dunne, Haltiwanger & Troske 1997), and industry (Autor, Katz & Kreuger 1998) levels, demonstrates that firms with significant amounts of IT capital tend to hire more skilled workers (Sinan Aral et al.). Information and Communication Technologies (ICTs) is a key enabler for accelerating and achieving economic and social development in the country as it is believe that technology also has its own culture and use of technological products leads to cultural change in society by itself (Naser Ali and Motiee Reza, 2012). Furthermore, ICT has been a must and an important tool for improving delivery of public services, broadening public participation, making government more transparent and accountable, integrating marginalized groups and deprived regions and facilitating the sharing of information and knowledge among the people (Naser Ali and Motiee Reza, 2012).

## **METHODOLOGY**

The design for data analysis explains the techniques that have been used to analyze data that is obtained from the questionnaire. The Statistical Packages for Social Science (SPSS) Version 20.0 was used to analyze the data. Descriptive data such as mean, median, mode, frequencies and percentages were used to analyze data. The data analysis is constructed from research objectives, concept/construct, measurement and scale. This software provided a powerful statistical analysis and data management system in a graphical environment, using descriptive menu and simple dialog boxes in order to complete the data. It will also allow the researchers to set and get the accurate data (Ong, 2011).

Furthermore, Cronbach's Alpha is been used to test the reliability coefficient all dependent variable and independent variables. For instance, to measure the factors that influence unemployment among graduates, it will be measured through the five point Likert Scales. Moreover, coding will be made before keying in the data into SPSS. This software is very important in data processing especially to link the data with the finding. This is because the data will be analyzed and presented in readable and interpretable form. The results of the findings were presented in the table showing the frequency and percentage.

## ANALYSIS & RESULTS

In order to know the frequency of respondent profile, the researchers use the frequency distribution. Respondent profile, also known as the demographic factor is used to explain the frequency characteristics of the respondents. In this study, we used the table to describe the data frequency. It is because, it is easier and much convenience to look at different value of variables and easy to understand. The items measured include the gender, marital status, age, race, religion, job position as well as the working experience.

Table 4.1: Frequency and Percentage of Respondent Profile

Respondent Profile		Frequency	Percentage (%)
Gender	Male	113	75.3
	Female	37	24.7
	Total	150	100
Marital status	Single	68	45.3
	Married	77	51.3
	Divorced	5	3.3
	Total	150	100
Age	20 years old & below	2	1.3
	21 – 30 years old	76	50.7
	31 – 40 years old	39	26.0
	41 – 50 years old	10	6.7
	51 years old and above	23	15.3
	Total	150	100
Race	Malay	104	69.3
	Chinese	12	8.0
	Indian	22	14.7
	Others	12	8.0
	Total	150	100

Religion	Muslim	106	70.7
	Buddhist	10	6.7
	Hindu	12	8.0
	Christian	12	8.0
	Others	10	6.7
	Total	150	100
Job position	Head of Department	4	2.7
	Manager	9	6.0
	Senior Executive	13	8.7
	Executive	20	13.3
	Engineer	31	20.7
	Technician	22	14.7
	Junior Technician	19	12.7
	Others	32	21.3
	Total	150	100
	Working experience	1 – 10 years	92
11 – 20 years		25	16.7
21 – 30 years		7	4.7
31 – 40 years		23	15.3
40 years and above		3	2.0
Total		150	100

Table 1 shows the frequency and percentage of the background of the respondents consist of gender, marital status, age, race, religion, job position and working experience. The number of respondents in this study is 150. Most of them are male with 113 respondents which comprise of 75.3%. Meanwhile, the rest are female which are 24.7% of the total respondents, comprise of 37 respondents. On the other hand, the frequency and percentage of marital status of the



respondents' shows that majority of the respondents are married with 77 people which comprise of 51.3%. It is then followed by 68 people whom are single that equals to 45.3%. Furthermore, only 5 people are divorced which comprised of 3.3%.

Moreover, the above table indicates that by referring the age, majority of the respondents are at the age of 21 to 30 years old which the respondents are 76 people with the percentage of 50.7%. It is followed by the respondents with the age of 31 to 40 years old with 39 people which equals to 26%. Besides that, 23 respondents are at the age of 51 years old and above which comprise of 15.3%. Furthermore, the respondents with the age of 41 to 50 years old are 10 people and the rest of 2 respondents are the people with the age of 20 years old and below. It comprise of the percentage of 6.7% and 1.3% respectively.

Furthermore, table 1 also shows the frequency and percentage of the respondents profile by race and religion. Referring the calculated race, it is dominated by the Malay by 104 people at the percentage of 69.3%. It is followed by the Indian with 22 people with the percentage of 14.7%. On the other hand, Chinese and other race share the same number of 12 people each which comprised of 8.0%. Meanwhile, the religion is dominated by 70.7% of Muslim consist of 106 people. It is followed by 6.7% of Hindu and Christian which each comprised by 10 people. The rest are Buddhist and other religions which each of them consists of 10 people at the percentage 6.7% each.

Table 2: Correlation Analysis

		Section E: Labor Productivity
	Pearson Correlation	0.886**
Section B: Motivation	Sig. (2-tailed)	0.000
	N	150
	Pearson Correlation	0.856**
Section C: Management Support	Sig. (2-tailed)	0.000
	N	150
Section D: Supervision	Pearson Correlation	0.788**
	Sig. (2-tailed)	0.000
	N	150
Section E: Technological	Pearson Correlation	0.987**
	Sig. (2-tailed)	0.000
	N	150

Table 2 indicates that all of the independent variables which are motivation, management support, supervision and technological are significant at the interval of 0.01 (2-tailed) which 0.000 is. Furthermore, technological scores the highest correlation with Pearson Correlation value of 0.987 as to dependent variable compare to other variables. Meanwhile, motivation scores the second highest Pearson Correlation value at 0.886. It is followed by management support with the Pearson Correlation of 0.856 and supervision at 0.788 of Pearson Correlation.

Table 3: R Square ( $R^2$ ) Value

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.990 <sup>a</sup>	0.981	0.980	0.07243

Based on the above Table 3, it explains that 98.1% of labor productivity is explained by the independent variables which are motivation, management support, supervision and technological. Thus, the remaining 1.9% of labor productivity is explained by other existing factors. For instance, Casey Jo Kuykendall (2007) in her previous research entitled “Key Factors Affecting Labor Productivity in the Construction Industry” has listed that safety and degree of bilateral communication are factors affecting labor productivity.

Table 4: Hypotheses Testing

	Beta	t	sig
H1: There is significant relationship between motivation and labor productivity towards company performance	0.126	2.286	0.024
H2: There is significant relationship between management support and labor productivity towards company performance	-0.077	-1.389	0.167
H3: There is significant relationship between supervision and labor productivity towards company performance	0.110	4.686	0.000
H4: There is significant relationship between technology and labor productivity towards company performance	0.859	37.276	0.000

Table 4 indicates that motivation, supervision and technological are significant at the value below 5% and having a positive relationship with labor productivity. This means that the three hypotheses which are H<sub>1</sub>, H<sub>3</sub> and H<sub>4</sub> are accepted. However, management support as the second independent variable in this research is not significant as the significant value is at 16.7%. It also shows that management support has a negative relationship with labor productivity. Thus, the H<sub>2</sub> is rejected and Null Hypothesis must be accepted. On the other hand,

the most influential factors that can enhance labor productivity towards company performance is technological since the Beta value is the highest. It is followed by motivation and supervision. Therefore, technological is essential as the determinant of labor productivity towards company performance in Malaysia.

## CONCLUSION

In this study, there are five research questions and objective that has been analysed. For the first objective and hypothesis is to determine motivation as a factor that affects the labor productivity in Malaysia, it's showed that there is strong correlation. Besides that, there is a significant relationship in motivation which the significant (2-tailed) is at 0.00. Sherif M. Hafez et al. (2014) proved that motivation does affect the labor productivity in Malaysia. Thus, accept  $H_1$ . It can be concluded that motivation has significant relationship in affecting labor productivity.

The second objective and hypothesis is proven as there is no significant relationship between management support and labor productivity. The significant value must be lower than 0.05, in this study the significant value is 0.167, thus it shows that there is no significant value between management support and labor productivity. Ibrahim Mahamid (2013) proved that management support has no significant in affecting labor productivity in Malaysia. So, the  $H_2$  cannot be accepted. It can be concluded that management support has no significant relationship towards labor productivity.

In addition, for the third objectives and hypothesis is to determine the relationship of supervision that affects the labor productivity in Malaysia. It's showed that there is a good correlation in supervision. Besides that, there has a significant relationship between supervision and labor productivity which the significant (2-tailed) is 0.00 level. Sherif M. Hafez et al. (2014) proved that supervision does affect the labor productivity in Malaysia. Thus, accept  $H_3$ . It can be concluded that supervision has significant relationship in affecting labor productivity.

Moreover, for the fourth objectives and hypothesis is to determine the relationship of technological that affects the labor productivity in Malaysia. It's showed that there is an excellent correlation in technological. Besides that, there has a significant relationship between technological and labor productivity which the significant (2-tailed) is 0.00 level. In addition, the fourth objective is achieved as technological is the most significant factor that affects the labor productivity in Malaysia based on the highest value of Beta in regression analysis which is 0.859. Naser Ali et al. (2012) proved that technological does affect the labor productivity in Malaysia. Thus, accept  $H_4$ . It can be concluded that technological has the most significant relationship in affecting labor productivity.

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