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THE IMPACT OF COMPENSATION MANAGEMENT ON INDUSTRIAL BUSINESS PRODUCTIVITY OF AUTOMOTIVE AND COMPONENTS IN THAILAND

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ABSTRACT

The objective of this research was to study the impact of compensation management on the productivity of the industrial business productivity of automotive and components in Thailand. The research sample group consisted of 350 business executives in the industrial business of automotive and components in Thailand. The stratified sampling method was conducted and the data was collected data from the questionnaires for statistical analysis including the mean, standard deviation, regression coefficient correlation analysis, composition analysis, and causal relationship analysis on structural equation model. The results showed that the business executives had the opinions on the compensation management and productivity at the high level. The results of the regression coefficient correlation analysis revealed that the compensation management had positive impact on overall business productivity at the statistical significance of 0.05 levels. The research model was consistent with the evidence data with statistical significance at the 0.05 level. Besides, the causal relationship of the structural equation model was in harmony with the empirical data. Therefore, in order to preserve the valuable human resources of an organization, motivational compensation should be managed. These will lead to the sustainable productivity of the industrial business in the future.

Keywords: Basic Compensation, Variable Compensation, Capital Productivity, Labor Productivity, Manufacturing Productivity

INTRODUCTION

Having been upgraded by the World Health Organization (WHO) to “Pandemic”, the coronavirus disease 2019 (COVID-19) situation affects the global economy through supply chains from labor and raw material shortages (Razzaq, Sharif, Aziz, Irfan & Jermisittiparsert, 2020). Since each country has an industrial production base to export goods to other countries, production of goods has been disrupted from this crisis. It has a rather severe impact on production in different countries depending on the dependency on raw materials and fundamentals. Thailand has been affected by this situation as same as many other countries. However, at the same time, Thailand has a goal to increase the production potential of the industry in order to achieve the stabilization of the country’s economy along with the stabilization of human capital in the industrial sector. The impacts on the current Thai industrial business operations stimulate the need to continuously adjust and expand business opportunities with foreign countries in terms of rules and regulations, international politics and importantly, government policies. It has been adjusted to focus on promoting the quality of life of industrial workers who are affected by the current situation. This makes all sectors aware of the importance of labor in the industrial sector known as “Human Capital”. The key issue is compensation management to achieve a balance between the industrial business and the workforce in the industrial system that may be affected (Wyatt & Frick, 2010; Kalyanamitra,

Saengchai & Jermsittiparsert, 2020). Especially the automotive and component industry, the number of employees in the industry is quite large (Bank of Thailand, 2020). The impact is passed on to the workforce through the industry's efforts to cut costs. It is correspondent with the reduced earning capacity. The industrial sector therefore tends to adjust the pay differently according to the impact of each industry. However, the success of the industry is influenced by labor efficiency in terms of incentive pay. This broadly affects the productivity potential of business operation (Chrisman et al., 2017). In particular, most industrial businesses try to maintain employment levels by supporting the business and Thailand to survive in the future.

Problems in Education

The concept of compensation management has become an important issue drawing a lot of attention of industrial business operators and executives. Especially during the past year of 2020, due to the epidemic situation of the coronavirus 2019 (COVID-19), from this crisis, the impact on productivity may differ from country to country depending on dependency on raw materials and fundamentals. This includes the industrial differences especially in the industry of automotive and components. Most of them have inventory-based production systems. This is because the standard of living and the distribution of income between labor and capital depend on the compensation and productivity of the industry. Most industries therefore incentivize an employee to do work that affects productivity (Tamasauskiene & Stankaityle, 2013). The compensation and productivity growth are clearly positively correlated with workforce performance (Fritoli, 2021). From exploring the factors in determining productivity of the manufacturing sector at the industrial level, the compensation is an important factor affecting industrial productivity (Tang, 2012). There is a positive correlation between productivity and compensation (Heshmati & Su, 2013). In addition, the corporate profit and average compensation have positive effect on the overall productivity of the industry. Thus, industrial businesses need to create productivity across the organization. The industry should apply the principle of compensation appropriately. However, investments in human capital are different and are of long-term importance to the persistence and productivity of industries contributing to further national economic development.

RESEARCH OBJECTIVES

The basic objective of this research was to study the human resource management in relation to the compensation management that affects the overall productivity of industrial businesses. The important issues are:

1. To study the level of opinions on the management of compensation and productivity of business executives in the industry of automotive and components.
2. To study the causal relationship between compensation management affecting the productivity of the automotive and component business.

Reasons of Study

The importance and necessity of compensation management is adapting to the latest trends in human resource management which is an important aspect of the automotive and component industrial business. The impact of compensation management on productivity will make the business of the automotive industry and components have stability and performance that can achieve operational efficiency as well as the development of human resource management systems in terms of compensation and economic development of advanced countries. This includes the knowledge and practices in order to achieve management that recognizes the importance of "Human Resources" that have a clear impact on the organization. This study took into account the interests of employees and industrial business organizations for preparing to plan formulate strategies and support changes that will occur in the future.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

In order for the operations of the industrial business to be managed to meet the needs of the established industrial business productivity goals and to meet the objectives and goals of the industrial business directly, every business has to improve work processes by increasing stability. At the same time, good relations are maintained between industrial businesses and employees or operators in accordance with the principles of good management by adhering to the principles of management of compensation that is as fair to the employees as possible. This has been confirmed in the study by the results of several researchers which will be partly discussed.

Synthesis of Variables

Human capital is the factor affecting the development of automotive and component industry. The industry should recognize the importance of creating incentives for compensation as it is the core of labor in the industrial sector. Various rewards of labor to be received for the performance of work may be monetary or non-monetary. The important factor is the basic compensation which is the compensation for working as agreed in the employment contract between the employer and the employee. Variable compensation is specially provided by the industry in order to incentivize better performance such as special rewards for performance, promotion, learning promotion, increasing work skills, competence, and techniques for more efficient operations (DeCenzo, 2010; Bohlander & Snell, 2009). For the industries in Thailand and around the world now, it is necessary to understand the current situation. The impacts of manufacturing and exporting industries of the automotive industry and components cause problems with employment or compensation management. In addition, the industry's adaptation for survival from this crisis must take into account the preservation of competent people in the industry (Hewitt, 2013). The industrial workforce is one of the determinants of the success or failure of an industry. It has a significant impact on productivity (Hunter et al., 2010). The management that focuses on people or labor must have knowledge and universal ability. This is why compensation has to be managed. However, investing in human capital is different and is of long-term importance to the persistence and productivity of the industry.

The industry will grow and be heavily influenced by the increase in labor productivity. This is because it is a factor that must be developed and scaling directly related to compensation management. The demand for industrial labor force will increase if productivity per unit of labor increases (Das et al., 2017). The industrial business whose performance indicator is Productivity is a measure of performance in order to be able to calculate the total production rate and output. The measure of efficiency and effectiveness of industrial businesses should take into account the most important factors, including: Capital Productivity which is the amount of productivity per unit of inputs for capital in order to achieve the highest quality. Investing in human capital is essential to labor productivity and internationalization (Onkelinx et al., 2016). Effective investment is capital productivity investment to make a difference in industry (Gamtessa & Olani, 2018). Labor Productivity is the product that occurs per unit of input for employees to work for the highest quality. Labor productivity has a huge impact especially on the competitive environment of the industry. The need for value addition to labor productivity can maintain stability in the industry (Kazaz et al., 2016). It can be concluded that labor productivity is a factor for the success of the industry (Elmawazini et al., 2018). Manufacturing Productivity is the produce per unit of inputs for production to be of the highest quality. Being able to identify the determinants of performance, the industry will have clear operating pattern (Selvam et al., 2016; Sergio et al., 2017) and productivity to meet the performance of the industry and completely meet the needs of consumers (Taouab & Issor, 2019).

RESEARCH HYPOTHESIS DEVELOPMENT

H1: The compensation management affects the productivity of the industrial business of automotive and components.

H2: The compensation management has a causal relationship to the productivity of the industrial business of automotive and components.

Creation of the Research Conceptual Framework

The above research variable synthesis of this paper presents a model of the impact of compensation management on the productivity of the industrial business of automotive and components. The independent variable is the compensation management while the dependent variable is productivity as shown in Figure 1.

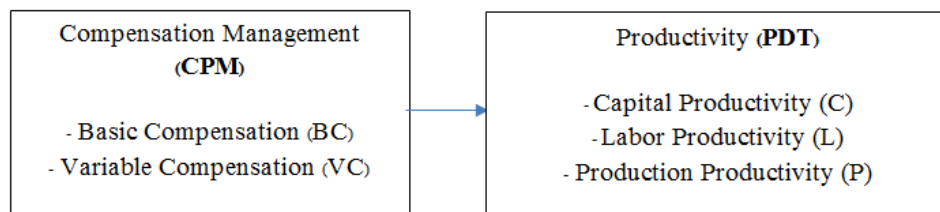


FIGURE 1
RESEARCH MODEL

RESEARCH METHODOLOGY

Data Collection

In this study, the researcher used quantitative research. The population used in the research consists of the executives, managing directors, general managers or equivalent of the industrial business of automotive and components in Thailand for a total of 2,190 industries (Automotive Information Center, 2017). The sample was determined using probability by sampling method. The confidence level was 95% and the error tolerance was $\pm 5\%$ ($e=0.05$). In the data collection of 350 samples, the instrument used for data collection was a questionnaire. The questions were in the checklist and Rating Scale forms. The quality of the instrument was checked by testing for reliability and accuracy to find the Discriminate Power using Item-total Correlation technique. The Discrimination Index (r) to find the Reliability used the Alpha Coefficient according to Cronbach's method. Then, the data was collected by sending the questionnaires, checking the accuracy and completeness of the questionnaires. The data was analyzed using the analysis of correlation models and hypothesis testing by structural equation analysis. The investigation was conducted between the hypothesized model based on the visual data from the sample by analyzing the Structure Equation Model (SEM) using statistical analysis such as Chi-square, df, P. -value, GFI, CFI, NFI, AGFI, and RMSEA.

Research findings

The executives in the industrial business of automotive and components in Thailand had the opinion with regard to compensation management at a high level ($\bar{x}=3.76$) with compensation management in each aspect at a high level including basic compensation and variable compensation as shown in Table 1. The executives in the industrial business of automotive and components in Thailand had the opinion with regard to the overall productivity

at a high level ($\bar{X}=4.14$) with a high level of productivity in all aspects including the production productivity, labor productivity, and capital productivity, respectively as shown in Table 2.

Compensation management	\bar{X}	S.D.	Level of agreement
1. Basic compensation	3.84	0.69	High
2. Variable compensation	3.67	0.80	High
Total	3.76	0.65	High

Productivity	\bar{X}	S.D.	Level of agreement
1. Labor productivity	4.11	0.59	High
2. Capital productivity	4.01	0.60	High
3. Production productivity	4.30	0.60	High
Total	4.14	0.52	High

The correlation coefficient analysis revealed that the correlation coefficient was between 0.358-0.525. The correlation test between variables must have the correlation value or absolute value of not more than 0.80 causing Multicollinearity to be suitable for the Structural Equation Model Analysis (SEM). Multicollinearity or the phenomenon that the variables have high positive correlation in the high negative correlation will be more accurate on the coefficient used to estimate. If such condition occurs, it is necessary to exclude independent variables that are not highly correlated from the analysis as in Table 3.

The results of the Confirmatory Factor Analysis can examine the single component of the overall compensation management model. When considering the Compensation Management and Productivity of the industrial business of automotive and components in Thailand individually, Compensation Management (CPM) is between 0.64-0.82. For the Productivity (PDT), the weights are between 0.69-0.89. They both have Validity as the Factor Loading with the value from 0.30 or more (absolute values) as shown in Table 4.

Variables	Basic Compensation (BC)	Variable Compensation (VC)	Labor productivity (L)	Capital productivity (C)	Production productivity (P)
Basic Compensation (BC)	1.000				
Variable Compensation (VC)	0.525	1.000			
Labor productivity (L)	0.385	0.256	1.000		
Capital productivity (C)	0.453	0.349	0.610	1.000	
Production productivity (P)	0.358	0.321	0.672	0.669	1.000

Latent Variables	Observed Variables	Factor Loading (λ)	R²
Compensation Management (CPM)	Basic Compensation (BC)	0.82	0.67
	Variable Compensation (VC)	0.64	0.41
Productivity (PDT)	Labor (L)	0.69	0.48
	Capital (C)	0.89	0.79
	Production (P)	0.75	0.56

According to the results of analysis of structural equations, causal relationship models, the model was consistent with the empirical data well. Considering the test results, the chi-square statistic was 6.01, the organizational level of independence (df) was 3, the chi-square ratio/level of independence (χ^2/df) or CMM/DF index was 2.00, not more than 2 according to the criteria with a statistical significance (p) of 0.111. Based on the harmonization index analysis, GFI was 0.984, CFI was 0.984, and NFI was 0.987. AGFI was 0.940 and the RMSRA was 0.377 which was higher than all of the criteria considered. The results of the multiple regression analysis and the overall productivity forecasting equations were established. Appearing on compensation management, the Basic Compensation (BC) and the Variable Compensation (VC) had statistically significant correlation and positive impact on overall productivity (PDT) at the 0.05 level. Thus, it agrees with the Hypothesis 1. It was found that the Basic Compensation (BC) and the Variable Compensation (VC) had the correlation coefficient of the dependent variable with the independent variable F equaling to 50.510. P was 0.000 and Adj R² was 0.221 as shown in the equation $PDT=2.685+0.283 BC+0.102 VC$ as in Table 5.

Statistical values	Criteria for consideration of Kline, 2011; Hair et al., 2010	Statistical values in the model
χ^2	Not Significant	$\chi^2 =6.01, df 3, P=0.111$
χ^2/df	<2.00	2.00
GFI	>0.90	0.984
CFI	>0.90	0.984
NFI	>0.90	0.987
AGFI	>0.90	0.940
RMSEA	<0.05	0.377

Compensation Management	Overall productivity		t	p-value
	Regression Coefficient	Standard Tolerance		
Constant (a)	2.685	0.148	18.150	0.000*
Basic Compensation	0.283	0.042	6.732	0.000*
Variable Compensation	0.102	0.036	2.814	0.005*
F=50.510 p=0.000 Adj R ² =0.221 *p<0.05				

DISCUSSION OF RESULTS

The research objective was to study the impact of compensation management on the productivity of the industrial business of automotive and components. In terms of compensation management, both basic compensation and variable compensation were positive correlation with impact on overall productivity. From the importance of compensation management as part of Human Capital Management today, it is a very important factor of industrial business in the production of goods and services. Motivation for working in key industries requires the minimum compensation policy to be established in accordance with the government's regulations. It still needs to consider the ability to keep "talented people" with the industry (Pearnpitak, 2018). On the other hand, the industry must recognize the importance of analyzing the components of compensation management. The models are consistent with empirical data to demonstrate the importance of compensation management components influencing industry productivity. Therefore, the executives must have the vision and policy framework for compensation management by stipulating it as the industry's rules and regulations in order to operate the industrial business in a systematic manner. There must be the standard for payment of compensation. Of course, compensation management alone is not the mean to the success of the industry. It is the survival and growth of the industry and its labor force that contributes to the country's continual productivity.

The research findings were consistent with the research of Howell (2003). It was found that the ultimate goal of all industrial sectors in the country was to increase productivity as well as improving the productivity. Bai & Wang (2003) research found that the automotive and accessories business had very high productivity because there was potential in the production process in terms of capital operations and labor potential resulting in the efficient production. The research of Pasimeni (2018) found that policies aiming at overall productivity were necessary condition between productivity and compensation. As it affected the workforce of the industry, it was important to implement the economic policy of the industry. The that well-guided compensation management gives workers confidence in their work. Resulting in efficient performance and a greater sense of security at work. Fallahi, et al., (2010) found that oversight of compensation was the deserving benefit for workers and compensation could affect how they worked together to create an incentive strategy. Research by Assaad & El-Adaway (2020) found that industry health required consideration of the relationship between overall industry productivity to move forward with the development of the concept of productivity related to the indicators used to measure industry performance. The research of Harvey & Moeller (2009) found that the compensation management was the key component of job performance for maximum efficiency and effectiveness.

REFERENCES

- Assaad, R., & El-Adaway, I.H. (2020). Impact of dynamic workforce and workplace variables on the productivity of the construction industry: New gross construction productivity indicator. *Journal of Management Engineering*, 37(1).
- Automotive Information Center. (2017). Thailand Automotive Institute. Searched on 10th June, 2017.
- Bai, C.E., & Wang, Y. (2003). Uncertainty in labor productivity and specific human capital investment. *Journal of Labor Economics*, 21(3), 651-675.
- Bank of Thailand (2020). Impact of the COVID-19 crisis on the global economy: This time is different searched.
- Bohlander, G. W., & Snell, S. (2009). *Administração de Recursos Humanos*, (14th edition).
- Chrisman, J.J., Devaraj, S., & Patel, P.C. (2017). The impact of incentive compensation on labor productivity in family and nonfamily firms. *Family Business Review*, 30(7), 119-136.
- Das, P., Basu, R., & Halder, A. (2017). Employment, wage and productivity: Analysis of trend and causality in Indian manufacturing industries. *The Journal of Industrial Statistics*, 6(1), 41 – 56.
- Decenzo, D. A., Robbins, S. P., & Verhulst, S. I. (2010). *Fundamentals of HRM USA*. John Wiley and Sons Inc.
- Elmawazini, K., Saleeby, E.G., & Ibn el Farouk, A. (2018). Tripartite decomposition of labor productivity growth, fdi and human development: Evidence from transition economies. *Economic Change and Restructuring: Dordrecht*, (51), 53-171.

- Fallahi, F., Sojoodi, S., & Aslaninia, M.N. (2010). Determinants of labor productivity in Iran's manufacturing firms: with emphasis on labor education and training. *International Conference on Applied Economics – ICOAE Italy*, 169-178
- Fritoli, M., Laffin, N., Bonacim, A.C., Gaio, E. L., & Gatsios, R. (2021). Efficiency wage and work effort: case study of a Brazilian multinational company. *African Journal of Business Management*, 15(1), 13-25.
- Gamtesa, S., & Olani, A.B. (2018). Energy price, energy efficiency, and capital productivity: empirical investigations and policy implications. *Energy Economics*, 72, 650–666.
- Harvey, M., & Moeller, M. (2009). Expatriate managers: A historical review. *International Journal of Management Reviews*, 11, 275-296
- Heshmati, A., & Su, B. (2013). Development and sources of labor productivity in Chinese provinces. *China Economic Policy Review*, 2(2), 1-30.
- Hewitt A (2013) Trends in global employee engagement. Consulting performance reward and talent. England
- Howell, C.R. (2003). Mechanisms employed by trichoderma species in the biological control of plant diseases: The history and evolution of current concepts. *Plant disease*, 87(1), 4 -10.
- Hunter, L., Webster, E., & Wvatt, A. (2010). Identifying corporate expenditures on intangibles using gaap. working paper no. 07/09, intellectual property research institute of Australia, *The University of Melbourne, Melbourne*.
- Kalyanamitra, P., Saengchai, S., & Jermittiparsert, K. (2020). Impact of training facilities, benefits and compensation, and performance appraisal on the employees' retention: a mediating effect of employees' job satisfaction. *Systematic reviews in pharmacy*, 11(3), 166-175.
- Kazaz, A., Ulubeyli, S., Acikara, T., & Er, B. (2016). Factors affecting labor productivity: Perspective of craft workers. *Procedia Eng*, 164, 28–34.
- Onkelinx, J., Manolova, T.S., & Edelman, L.F. (2016). The human factor: Investments in employee human capital, productivity, and SME internationalization. *Journal of International Management*, 22(4), 351-364.
- Pasimeni P. (2018) The relation between productivity and compensation in Europe, European Economy Discussion Paper 079, Luxembourg, Publications Office of the European Union.
- Pearnpitak, K. (2018). Creative talent management in the 21st Century. *PSAKU International Journal of Interdisciplinary Research*, 7(2), 131-138.
- Razzaq, A., Sharif, A., Aziz, N., Irfan, M., & Jermittiparsert, K. (2020). Asymmetric link between environmental pollution and covid-19 in the top ten affected states of US: A novel estimations from quantile-on-quantile approach. *Environmental Research*, 191, 110189.
- Selvam, M., Gayathri, J., Vasanth, V., Lingaraja, K., & Sigo, M.O. (2016). Determinants of firm performance: A subjective model. *International Journal of Social Science Studies*, 4(7), 90-100.
- Sergio, R. P., Moyalan, L. J., Al-Ali, H. R., & Al Bannai, M. M. (2017). Human resource management practices: A case of telecommunication company in the United Arab Emirates. In *Leadership, Innovation and Entrepreneurship as Driving Forces of the Global Economy*, Springer, Cham, (437- 444).
- Tamasauskiene, Z., & Stankaityte, A. (2013). Evaluating of the relationship between wages and labor productivity in Lithuania. *Socialiniai tyrimai/Social Research*, 1(30), 24-35
- Tang, F.C. (2012). The non-monotonic effect of real wages on labor productivity: New evidence from the manufacturing sector in Malaysia. *International Journal of Social Economics*, 39(6), 391-399.
- Taouab, O., & Issor, Z. (2019). Firm performance: Definition and measurement models. *European Scientific Journal*, 15(1), 93-106
- Wyatt, A., & Frick, H. (2010). Accounting for investments in human capital: A review. *Australian Accounting Review*, 20(3), 199-220.