

## Strategic Human Resource Management and Financial Performance of Plastic Manufacturing Companies in Caloocan and Valenzuela

Edralin C. Lim  
De La Salle University

— *Review of* —  
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### ABSTRACT

Products made from wood, metal or glass materials are commonly replaced by plastic products. An increase in demand for plastics also increases the need for plastic manufacturing companies to step up with the competition. The study evaluates the contribution of strategic human resource management to the performance of plastic manufacturing companies, based on the perception of the companies' managers in Caloocan and Valenzuela Cities. The researcher applied the resource-based theory of strategic human resource management to validate the said theory. The results of this study showed that training positively affects employee performance. However, SHRM measures and employee performance does not affect the companies' financial performance. This study informs the plastic manufacturing companies that effective SHRM could lead to financial performance. Apart from training, the companies should emphasize other SHRM practices such as staffing, employee participation, performance appraisal, and compensation to maximize their investment in SHRM and to improve their employee and financial performance. This study contributes to the HR literature and recommends areas for future studies.

Keywords: strategic human resource management; financial performance.

### 1. INTRODUCTION

Objects made from wood, metal or glass materials are commonly replaced by consumers using plastic products. In 2016, 335 million metric tons of plastic products were produced by global plastics manufacturers (Statista, nd). An increase in demand for plastics also increases the need for these plastic manufacturing companies to step up with the competition. A total of 160 plastic manufacturing companies operate in Valenzuela City and Caloocan City. The study will evaluate the contribution of strategic human resource management to the firm's performance specifically of plastic manufacturing companies.

Several studies have already shown the relationship between strategic human resource management (SHRM) and firm performance. This topic had been studied in Indonesia (Aryanto, Fontana and Afiff, 2015), China (Fu, Bosak, Flood and Ma, 2019; Ali, Lei and Wei, 2018), Taiwan (Lu, Chan, Huang and Chien, 2015), Jordan (Al-Refaie, 2015), Turkey (Zehir, Gurol, Karaboga and Kole, 2016; Zehir, Yildiz, Kole and Basar, 2016),

Spain (Sanchez, Marin and Morales, 2015), Ireland (Fu, Bosak, Flood and Ma, 2019) and United States (Bendickson and Chandler, 2019).

In the Philippines, however, only limited researches were made to study the SHRM. The study would evaluate the effects of strategic human resource practices on financial performance of plastic manufacturing companies in Valenzuela City and Caloocan City.

### 1.1 Research Problem

What is the effect of strategic human resource practices on firm performance?

What is the effect of staffing, training, employee participation, performance appraisal and compensation on financial performance?

What is the effect of number of employees and capitalization on financial performance?

What is the mediating effect of employee performance on the relationship between human resources practices and financial performance?

### 1.2 Significance of the Study

For the plastic manufacturing companies, this study will inform about specific SHRM practices that could significantly contribute to their financial performance. Maximizing their SHRM investment could result to these companies' better profits and employee performance as indicated by previous studies.

For the colleges and universities, this study will inform them about the importance of SHRM in producing quality HR graduates to fill in key management positions in the future.

For the researchers, this study will inform them about the effects of strategic human resource management on financial performance and recommend areas for future studies.

### 1.3 Scope and Limitation

This study pertains to plastic manufacturing companies. It is in accordance with the perception of 34 companies (30% response rate for online survey). The computed sample size is 114 ( $n=160/(1+160(.05)^2)$ ). The basis of population is the number of companies operating in Caloocan and Valenzuela. In gathering primary data, the researcher adapted the construct items of Sanchez et al. (2015) for staffing, training, employee participation, performance appraisal and compensation questions and of Zehir et al. (2016) for employee performance questions so as to form the 5-point Likert scale questionnaire. The

actual number of employees as well as the real values for capitalization and financial performance were used.

#### 1.4 Strategic Human Resources Practices

Kokkaew and Koopai (2012) stated that investing on human resource management is one method to improve the performance of an industry. Sanchez et al. (2015) used staffing, training, employee participation, performance appraisal and compensation as measures of strategic human resources practices in the study. They used a 5-point Likert scale (1) no implementation; (2) little implementation; (3) some implementation; (4) extensive implementation; (5) high implementation to quantify the staffing by asking these 3 questions:

1. Selectivity in hiring qualified workforce to do the required tasks.
2. Selection of individuals with appropriate skills and attitudes to do the tasks
3. Selection for future potential employees

Sanchez et al. (2015) also used a 5-point Likert scale (1 = no implementation and 5 = high implementation) to gauge the training through the following questions:

1. Availability of internal and external training activities to develop knowledge and expertise of employees
2. Availability of comprehensive training policies and programs
3. Availability of training for new hires to acquire knowledge and skills

To measure the employee participation, Sanchez et al. (2015) used a 5-point Likert scale (1 = no implementation and 5 = high implementation) and asked the following questions:

1. Employees are allowed to make decisions
2. Employees are allowed to suggest improvements into work
3. Employees' voices are valued by the organization

Sanchez et al. (2015) used a 5-point Likert scale (1 = no implementation and 5 = high implementation) to evaluate the performance appraisal via the questions below:

1. Development-focused appraisal (providing feedback to identify the development of knowledge and skills of the employees)
2. Results-based appraisal (providing feedback to draw results and identify employee's contribution to the success of the unit or organization)
3. Behavior-based appraisal (providing feedback to elicit desired behaviors from employees)

To quantify the compensation, Sanchez et al. (2015) used a 5-point Likert scale (1 = no implementation and 5 = high implementation) and asked the following questions:

1. Providing incentive pay to the employees
2. Providing incentives to good performance

### 1.5 Employee Performance

Zehir et al. (2016) used a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree) to gauge the employee performance through the following questions:

1. Employees feel more satisfied with their jobs.
2. Absenteeism rate of employees decreases over the years.

### 1.6 Financial Performance

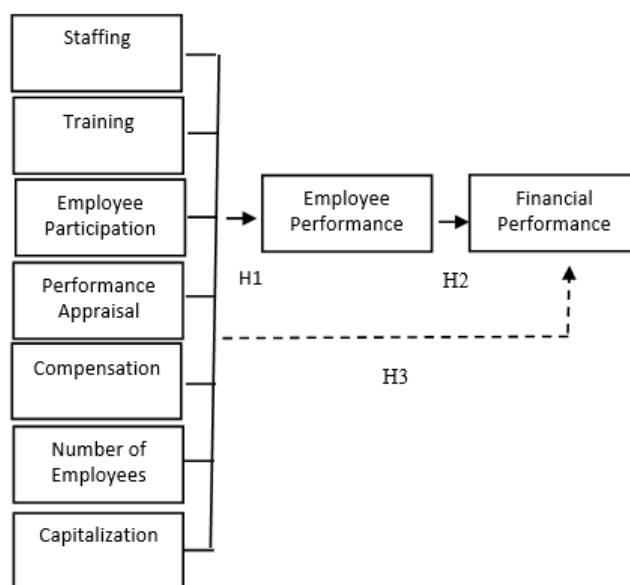
Sanchez et al. (2015) used actual values (average value from 2010 to 2012) to evaluate the financial performance through the following measures:

$$\text{Return on assets (ROA)} = \text{net income} / \text{total assets}$$

## 2. FRAMEWORK

One of foundations of strategic human resource management is resource based theory. Barney (as cited in Zehir et al., 2016) stated this theory as “a resource that can create sustainable competitive advantage only when it is rare, valuable, inimitable and non-substitutable.”

Figure 1. Research Framework



The study adapted the framework of Sanchez et al. (2015) and Zehir et al (2016). The

SHRM dimensions and dependent variable financial performance of Sanchez et al. (2015) were used by the researcher. Moreover, he used the moderating variable employee performance of Zehir et al. (2016). This study intends to analyze the effect of SHRM on financial performance. Figure 1 illustrates the 5 independent variables such as staffing, training, employee participation, performance appraisal and compensation as measures of SHRM. The number of employees and capitalization are the controlling variables. Financial performance is the dependent variable while employee performance is the mediating variable.

### 2.1 Hypothesis of the Study

H1: Staffing, training, employee participation, performance appraisal, compensation, number of employees and capitalization have a significant effect on employee performance.

H2: Employee performance has a significant effect on financial performance.

H3: Staffing, training, employee participation, performance appraisal, compensation, number of employees and capitalization have a significant effect on firm performance.

## 3. METHODOLOGY

### 3.1 Research Locale

The production manager of Techtron Industrial Corporation, Mr. Romualdo Lim, helped in the conduct of an online survey. This was participated in by managers of plastics manufacturing companies in Caloocan and Valenzuela City. The basis of population (160) was the number of plastic manufacturing companies operating in Caloocan and Valenzuela.

### 3.2 Research Design

The study is a descriptive and explanatory research. It describes the profiles of the respondents, as well as the mean and standard deviation of the constructs. Furthermore, it evaluates the effect of SHRM on financial performance of selected plastic manufacturing companies.

### 3.3 Sampling Design

Purposive sampling is used by the study. One hundred-fourteen managers from plastic manufacturing companies in Caloocan and Valenzuela were invited to participate in the online survey. There were 34 companies that responded. There was a response rate of

30%. The computed sample size is 114 ( $n=160/(1+160(.05)^2)$ ). The basis of population (160) is the number of plastic companies operating in Caloocan and Valenzuela.

### 3.4 Research Instrument

Survey questions for staffing, training, employee participation, performance appraisal and compensation questions were adapted from Sanchez et al. (2015). This was done in order to form the 5-point Likert scale: (1) no implementation; (2) little implementation; (3) some implementation; (4) extensive implementation; (5) high implementation. Survey questions were also adapted from Zehir et al. (2016) for employee performance questions so as to form the 5-point Likert scale questionnaire (1 = strongly disagree and 5 = strongly agree).

The actual number of employees, as well as the actual values for capitalization and financial performance, were used.

### 3.5 Statistical Treatment of Data

The researcher computed the average of responses on questions per variable. To describe the means of the variables, the researcher computed the interval of responses per variable and made a table of verbal interpretation (see Table 1).

$$\text{Interval (I)} = (\text{Hi} - \text{Lo})/\# \text{ of categories} = (5-1) / 5 = 0.80$$

**Table 1. Verbal interpretation of strategic human resources variables**

Range	Strategic Human Resources Variables
4.20 – 5.00	highly implemented
3.39 – 4.19	extensively implemented
2.58 – 3.38	implemented
1.77 – 2.57	slightly implemented
.96 – 1.76	not implemented

Cronbach’s alpha is used for testing the construct reliability. In examining the multi-collinearity of the data, variance inflation factor (VIF) is used. Meanwhile, in examining the effects of staffing, training, employee participation, performance appraisal and compensation on employee performance, the study used multiple regression analysis. Equation 1 is the formula for linear regression.

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon_i \text{ (Eq. 1)}$$

where:

- $Y_i$  = employee performance
- $\beta_0$  = constant
- $\beta_1 X_1$  = staffing
- $\beta_2 X_2$  = training
- $\beta_3 X_3$  = employee participation
- $\beta_4 X_4$  = performance appraisal
- $\beta_5 X_5$  = compensation
- $\varepsilon_i$  = error term

Linear analysis was used to check the effect of employee performance on financial performance. Equation 2 is the formula for linear regression.

$$Y_i = \beta_0 + \beta_1 X_1 + \varepsilon_i \text{ (Eq. 2)}$$

where:

- $Y_i$  = financial performance
- $\beta_0$  = constant
- $\beta_1 X_1$  = employee performance
- $\varepsilon_i$  = error term

Lastly, the study used multiple regression analysis in testing the effects of staffing, training, employee participation, performance appraisal and compensation on financial performance. Equation 3 is the formula for linear regression.

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon_i \text{ (Eq. 3)}$$

where:

- $Y_i$  = financial performance
- $\beta_0$  = constant
- $\beta_1 X_1$  = staffing
- $\beta_2 X_2$  = training
- $\beta_3 X_3$  = employee participation
- $\beta_4 X_4$  = performance appraisal
- $\beta_5 X_5$  = compensation
- $\varepsilon_i$  = error term

## 4. RESULTS AND DISCUSSION

### 4.1 Descriptive Analysis

The respondents’ average age was 45.6 years (SD = 13.1). They were 30 men and 4 women aged 25 to 75 years (men: M = 45.4, SD = 13.8; women: M = 47.75, SD = 6.02). The median and mode for age were 49 and 52, respectively.

Of the respondents, 26 were married and 8 were single.

The average number of employees and capitalization of the plastic manufacturing companies were 119.4 and Php 47,760,606.00, respectively.

Staffing score has a mean of 3.39. Based on Table 1, companies extensively implemented the practice of staffing.

Training score has a mean of 3.11. Based on Table 1, companies implemented the practice of training.

Employee participation score has a mean of 3.19. Based on Table 1, companies implemented the practice of employee participation.

Performance appraisal has a mean of 3.42. Based on Table 1, companies extensively implemented the practice of performance appraisal such as results and behavior-based appraisals.

Compensation has a mean of 3.51. Based on Table 1, companies extensively implemented the practice of compensation through inventive pay.

Employee performance has a mean of 3.62. Based on Table 1, employees have very satisfactory performance because of their job satisfaction and decreasing absenteeism rate.

4.2 Test of Construct Reliability

**Table 2. Test of Reliability for Constructs**

Items	Cronbach's Alpha
ST1, ST2, ST3	.78
TR1, TR2, TR3	.95
EP1, EP2, EP3	.86
PA1, PA2, PA3	.77
COM1, COM2	.93
EPE1, EPE2	.77



In testing for the reliability of the constructs, the Cronbach's alpha was used. Based on table 2, the following Cronbach's alpha values indicated an acceptable level of reliability: .78 for staffing, .95 for training, .86 for employee participation, .77 for performance appraisal, .93 for compensation and .77 for employee performance. Note that a reliability coefficient of .70 or higher is considered acceptable.

#### 4.3 Test of Multicollinearity

No multicollinearity exists between variables. Their variance inflation factor (VIF) scores are below 10. The following are their VIF scores: ST = 3.20, TR = 2.93, EP = 1.52, PA = 2.19 and COM = 2.56.

#### 4.4 Regression Analysis

The researcher employed a linear regression analysis to test if staffing, training, employee participation, performance appraisal, compensation, number of employees and capitalization significantly predicted employee performance, as shown in Model 1 of Table 3. The results of the regression indicated that the predictor explained 35.8% of the variance ( $R^2 = .50$ ,  $F(7, 25) = 3.55$ ,  $p < .01$ ). It was found that training ( $B = .39$ ,  $p < .01$ ) and capitalization ( $B = .009$ ,  $p = .067$ ) significantly predicted employee performance.

Table 3. Employee performance as the dependent variable

	Model 1
Constant	2.03*** (0.46)
Staffing (ST)	0.069 (0.177)
Training (TR)	0.39** (0.14)
Employee Participation (EP)	0.12 (0.13)
Performance Appraisal (PA)	0.19 (0.18)
Compensation (COM)	0.075 (0.12)
Number of Employees (NO_EMP)	.000 (0.001)
Capitalization (CAP)	0.009* (0.000)
R-squared	0.50
Adjusted R-squared	0.36
P-value	0.009
No. of observations	34

Standard errors are reported in parentheses.

\*, \*\*, \*\*\* indicates significance at the 90%, 95%, and 99% level, respectively

In order to test if employee performance significantly predicted financial performance as shown in Model 2 of Table 4, a linear regression analysis was used. The results of the regression indicated that the predictor explained -2.5% of the variance ( $R^2 = .006$ ,  $F(1, 32) = .188$ ,  $p = .67$ ). It was revealed that employee performance insignificantly predicted financial performance ( $B = 2.94$ ,  $p = .668$ ).

Table 4. Financial performance as the dependent variable

	Model 2
Constant	16.9 (24.9)
Employee Performance (EPE)	2.94 (6.78)
R-squared	0.006
Adjusted R-squared	-0.025
P-value	0.668
No. of observations	34

Standard errors are reported in parentheses.

\*, \*\*, \*\*\* indicates significance at the 90%, 95%, and 99% level, respectively

The study used a linear regression analysis to test if staffing, training, employee participation, performance appraisal, compensation, number of employees and capitalization significantly predicted financial performance as shown in Model 3 of Table 5. The results of the regression indicated that the predictor explained 6.03% of the variance ( $R^2 = .268$ ,  $F(7, 25) = 1.305$ ,  $p = .289$ ). It was found that only capitalization significantly predicted financial performance ( $B = 0.00$ ,  $p = .018$ ).

Table 5. Financial performance as the dependent variable

	Model 3
Constant	17.7 (20.8)
Staffing (ST)	0.18 (8.09)
Training (TR)	1.40 (6.43)
Employee Participation (EP)	6.29 (5.92)
Performance Appraisal (PA)	7.50 (8.31)
Compensation (COM)	0.79 (5.46)
Number of Employees (NO_EMP)	0.034 (0.031)
Capitalization (CAP)	0.001** (0.000)
R-squared	0.27
Adjusted R-squared	0.06
P-value	0.29
No. of observations	34

Standard errors are reported in parentheses.

\*, \*\*, \*\*\* indicates significance at the 90%, 95%, and 99% level, respectively

#### 4.5 Discussion

Previous studies conducted on the significance of SHRM on the financial performance of companies were not reflected by this study. On the other hand, this study showed quite the contrary. It means that the SHRM practices of plastic manufacturing companies in Caloocan and Valenzuela are not fully maximized. It could mean that these companies pay too much attention to new products and customer service. Only training and capitalization significantly affect employee performance, but not the financial performance. Moreover, employee performance irrelevantly affects financial performance. This could be interpreted by saying that companies should focus their attention more on their employees and on their corporate values in order to achieve a more efficient SHRM. Staffing, training, employee participation, performance appraisal and compensation should be present, and these should be given importance in order to develop the companies' financial performance. The results call for the maximization of the full potential of SHRM by the management of these plastic manufacturing companies. Qualified individuals with the appropriate skills set and attitude should be prioritized in staffing. The acquisition of new knowledge and relevant skills must be the target of employee development in conducting trainings. Employees may be empowered through granting them a measure of autonomy and freedom in decision-making at the workplace. Performance appraisal should be based on development, results and behavior of the employees. Good performance must be compensated through the giving of incentives.

#### 5. CONCLUSIONS

This study examined the effects of SHRM on financial performance. The results showed that SHRM significantly affects employee performance, but not financial performance. The results were in contrast with the findings by prior studies. Training was recognized as the sole determinant that significantly impacts employee performance. The results implied that training is essential for employee performance. However, for a company to increase financial performance and gain profits, strategic staffing, training, employee participation, performance appraisal and compensation must be fully implemented.

This study, which highlights the fact that effective SHRM could lead to employee performance, is now shared with the management of plastic manufacturing companies. These plastic manufacturing companies then apply SHRM. With SHRM, better focus will be given to the staffing, training, employee participation, performance appraisal and compensation, thus creating more productive employees. High employee performance could very well contribute to financial performance, spelling better profit margins.

The study could provide information to colleges and universities about the importance of SHRM as an effective tool in enhancing employee and financial performance.

The study could also contribute to the existing literatures about SHRM and financial performance.

Further researches can focus on specific sectors and other regions in order to show how human resources practices contribute to firm performance. Future researchers can include the entrepreneurial orientation as mediating variable between SHRM and firm performance (Zehir et al., 2016). Knowledge management can also be included as an independent variable of financial performance.

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