

EFFECTS OF HUMAN RESOURCE MANAGEMENT ON BUSINESS PERFORMANCE OF SMALL AND MEDIUM SIZE MANUFACTURERS IN HANOI – VIETNAM

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ABSTRACT

This research examines the relationships between HRM practices and performance of manufacturing SMEs in Ha Noi. Questionnaires were sent to CEOs, business owners, or human resource managers at 300 manufacturing SMEs in Ha Noi, 245 responses were collected and 200 qualified responses were left after screening. The findings indicate positive relationships between training, performance appraisal, incentive compensation and performance of manufacturing SMEs in Hanoi. This study partly clarifies the conflicting results of the previous studies on the relationships between training, performance appraisal, incentive compensation and firm performances.

Keywords: *training, performance appraisal, incentive compensation, business performance, SME, Vietnam*

1. INTRODUCTION

Human resources are considered as a crucial factor that decides the success of entirely operation system and development of organizations (Huselid, 1995; Kaufman, 1992; Boothby et al, 2010; Buller and McEvoy, 2012). According to Boothby et al, (2010) and Buller and McEvoy (2012), human resource management is an important determinant of organization effectiveness.

Unlike other resources, superior human resources tend to be very difficult for competitors to duplicate (Flanagan 1996). As many of the traditional sources of competitive advantage (technology, economies of scale, patent) have diminished in value, a skilled, motivated and flexible workforce has become more and more important (Huselid and Becker, 1997).

The impacts of several components of HRM were controversial in studies. Most research found positive relationship between HRM and performance, however, some other authors found no or negative relationship among these variables. Marshal (1995) and Westhead and Storey (1996) found no relationship between training and firm performance. Martell and Carroll (1995) found no positive link between strategic business unit (SBU) performance and frequency of formal performance appraisals, and performance appraisal based on actual outcomes. Byson (1999) found that financial participation schemes had no significant effect on small firm performance.

SMEs are independent businesses/firms registered under the existing laws and regulation with total capital not more than 100 billion VND or less than 300 employees (Decree 56/2009/NĐ-CP, dated June 30, 2009). SMEs are playing an increasingly important role in Vietnamese economy in general and Hanoi in particular (GSO; Nguyen The Nghia, 2007; Ebashi, 2007; Ruderman, 2005). According to GSO (2010), by 31/12/2010, there were 22,441 joint stock companies registered nationwide. There are 1,597 State owned JSC (7.5%) and 20,684 Non State Owned JSC 92.5%). However, most of these enterprises are small and medium enterprises (SMEs).

Since small enterprises tend to be more labor intensive than large firms do, building competitive advantage through human resources may be particularly important to small enterprises (Flanagan and Deshpande, 1996).

However, no studies on the relationships between human resource managements (training, performance appraisal, and incentive compensation) and firm performance of SMEs in Vietnam and in Hanoi in particular has been conducted.

The above arguments and evidences indicate the importance of examining the relationships between human resource managements (training, performance appraisal, and incentive compensation) and firm performance of SMEs in Vietnam.

2. LITERATURE REVIEW

2.1. Firm Performance

Performance of firms is reflected in profitability (McMahon, 1995), sales (Merikas, Bruton and Vozikis, 1993), return on investment, growth in turnover, volume, profit and employment (Jennings and Beaver, 1997). Achieving high performance is one of the most important objectives of organizations. Poor performance indicates potential failure that, if not corrected, could put the firm out of business (Dubin et al, 1993). Superior performance in small companies is invariably equated with successful business development reflected in return on investment and growth in turnover, volume, profit and employment (Jennings and Beaver, 1997).

2.2 Training

Training is any organizationally initiated procedures, which intended to foster learning among organizational members in a direction contributing to organizational effectiveness (Hunrichs, 1995). Training comprises informal on-the-job training, formal in-house training and external training (Sadler-Smith et al, 1998). When on-the-job training involves courses conducted at the firm, it is defined as "formal" on-the-job training. When training is provided in conjunction with normal firm operations, it is defined as "informal" on the-job training. Off-the-job training is defined attending training outside the location of the firm with support from the firm. Support includes time-off work, payment of course fees or other form of financial assistance (Fuller and Hastings, 1993).

There have been a number of studies concerning effects of training on firm performance; however, the findings have been inconclusive. Wynarczyk (1993) study of fast-growth SMEs in the United Kingdom was unable to find a link between firm performance and the provision of training. Evidence that management training for either owner/managers or non-owner/managers enhanced SME performance was rather sparse (Hewitt, 1993; Kinsella, 1994). Westhead and Storey (1996) argued that the reasons for an absence of positive impact of training on firm performance might be the poor quality of the training provided.

A study by Holzer (1993) indicated that increases in formal training significantly reduced the scraps. Kalleberg and Moody (1994) concluded that training appeared to enhance all dimensions of firm performance (quality of product, development of products, employees, relations, growth in sales, profitability and market share). Huselid (1995) indicated that training was positively related to productivity and firm financial performance. Boothby et al (2010) found provision of related training has a positive impact on productivity performance.

Millar and Stevens (2012) found that organizational performance would increase following training. Specifically, organizational performance increased significantly immediately after training and remained higher than the pre-training scores at the 3 month time measure.

Although it is still controversial, theoretically training improves skills, abilities and positive behavior of employees, and motivates them to work more effectively and efficiently, thus enhancing firm performance. It is therefore hypothesized that

H1: There is a positive relationship between training and SME performance.

2.3 Performance appraisal

Performance appraisal is defined as a process by which a SME evaluates how well an individual has performed (Werther et al, 1996). Martell and Carroll (1995) found that there was no positive link between strategic business unit (SBU) performance and frequency of formal performance appraisals, and performance appraisal based on actual outcomes. However, there is a number of studies support the positive effects of performance appraisal on firm performances.

In their study, Martell, Gupta, and Carroll (1996) reported that four appraisal variables studied (frequency of informal appraisals, use of objective criteria, use of subjective criteria, and utilization of appraisal results) were

positively correlated with firm performance. Use of performance appraisals and linking such appraisals with compensation, have been consistently connected with increased in profitability (Gerhart and Milkovich, 1992). Roberts (1995) investigated how human resource strategies affected profits in 3000 enterprises throughout the world. The study showed that a well-run, professional appraisal system could significantly improve performance of individuals, and therefore profitability of firms. Cho, Woods, Jang, and Erdem (2006) also found positive relationship between employee appraisal and profitability.

Theoretically, performance appraisals provide employees with motivation and constructive feedbacks that help to improve their performance, thus increasing business performance. It is therefore hypothesized that
H.2: There is a positive relationship between performance appraisal and SME performance.

2.4 Incentive compensation

There are various kinds of incentives. The more common incentives are piecework payments, production bonuses, commissions, maturity curves, merit raises, pay-for-knowledge or pay-for-skills compensation, nonmonetary incentives, executive incentives, international incentives (Werther et al, 1996).

Martell and Carroll (1995) found no relationship between executive compensation and SBU performance, except for competitiveness of compensation packages. Byson (1999) indicated that financial participation schemes had no significant effect on small firm performance, but more effective for larger firm. However, most of study found positive relationships between incentive compensation and firm performance.

Leonard (1990) investigated effects of executive compensation policy and organization structure on performance of 439 larger US corporations. The author found that companies with long-term incentive plans enjoyed significantly greater increases in return on equity than did companies without such plans.

Murphy (1985) examined relationships between firm performance and incentive compensation of 461 executives in 72 firms over an 18-year period and found that executive compensation, including salary and bonus, and stock options, stock holdings, and deferred compensation positively and strongly related to both shareholder returns and sales growth. Kaufman (1992) reported that implementation of gain sharing led to a significant increase in productivity. Kruse (1993) examined relationship between profit sharing and productivity of 250 firms and showed that profit sharing was associated with 3 to 5% increase in productivity.

Kalleberg and Moody (1994) studied impacts of HRM practices on perceived measurement of firm performance. The author found that gain sharing, profit sharing, and having compensation tied to performance positively related to all types of performance (product, employee, customer satisfaction, relations, and market). Yao (1997) studied profit sharing, bonus payment, and productivity based on a survey of 400 state-owned manufacturing enterprises in China. The author concluded that the impact of retained profits and bonus payments was so strong that the incentive system explained much of productivity growth.

Cho, Woods, Jang, and Erdem (2006) found positive relationship between incentive and profitability. Mitsudome, Weintrop, and Hwang (2008) found a significantly positive relation between the changes in CEO compensation and the lagged performance measures. Specifically, CEOs are rewarded for firm performance for more than one period.

Even though the findings were mixed, theoretically incentive compensation provided motivation to employees to work effectively and efficiently, thus improving firm performance. It is therefore hypothesized that:

H3: There is a positive relationship between incentive compensation and SME performance.

3. RESEARCH METHODS

3.1 Measurements

Firm performance. This study applied the composite measurement scales developed by Chandler and Hanks (1993). Respondents were asked to indicate degree of importance and degree of satisfaction with eight indicators of firm performance. Then the composite measurement scale was calculated by using the formula adopted from Martell, Gupta and Carroll (1996):

$$FP = \frac{\sum_{i=1}^8 CI_i \times CPI_i}{TI}$$

- FP = Firm performance
 CI = Degree of importance attached to dimension i
 CP = Perceived performance of dimension i
 TI = Total scores of degree of importance of 8 dimensions

Training. Training was measured via five items, percentage of the employees receiving formal training; percentage of the employees receiving informal training; number of formal training hours per employee / total working hours per employees (%); number of informal training hours per employee / total working hours per employees (%). (Becker, 1998).

Performance appraisal. Multi-indicators were adapted to measure appraisal practices of SMES. Specifically, performance appraisal was measured via four items, percentage of the employees receiving formal performance appraisal; percentage of the employees having job performance appraised based on objective criteria; percentage of the employees having job performance appraised based; percentage of the employees having performance appraisal used in determining incentive compensation (Huselid & Becker, 1997; Becker, 1998).

Incentive compensation. Multiple item measurement scales were employed to assess incentive compensation practices of SMEs. These items include percentage of the employees receiving incentive compensation; percentage of the employee's total compensation accounted for by bonuses; importance of job performance in determining the employee's earnings (response score / maximum values of 7, (%); importance of firm performance in determining the employee's earnings (response score / maximum values of 7, (%)) (Delaney, 1996; Becker, 1998).

3.2 Sample and Data Collection

The target population of this study is CEOs, business owners, or human resource managers at Manufacturing SMEs in Ha Noi. The sample was randomly selected from the list of manufacturing enterprises in Hanoi Business Directory. From 300 selected respondents, 245 responses were collected and 200 qualified responses were left after screening.

The majority (76.5%) of the respondents was male, and female accounted for 23.5 %. Regarding age, the largest group (32.5%) of the respondents was those between 31 and 40 years. The second largest group (24.5%) consisted of respondents who were not more than 30 years old. These two groups together accounted for 57% of the respondents. Moreover, 21% of the respondents fell within the age of 41 - 50 years, while 16 % were within the age group of 51 – 60 years. Respondents with more than 60 years old accounted for only 6% of the sample. Regarding education, surveyed data indicates that 11% of respondents were post graduates. 46.5 % of respondents were undergraduates. 28.0% of respondents have associated degree. 179.5% of respondents were business owners; remaining 20.5% was HRM Managers.

The data was collected via questionnaire survey. Questionnaires were sent out to respective respondents in the selected companies via 8 interviewers. The interviewers participated in half-day training on data collection methods. The interviewers had to follow the instructed procedures. First, they make initial contact with respondents and explain the objectives of the research and benefits to SMEs. Then they asked and assisted respondents filled out the questionnaires.

4. RESEARCH FINDINGS

4.1 Exploratory Factor Analysis

Exploratory factor analyses (EFAs) on the collected data showed that 5 training items, 4 Performance appraisal items, 4 Incentive compensation items remained in the three respective factors (variables) (table 1).

Training: all of five original items were retained after EFA. These items had factor loadings that varied from 0.753 to 0.881 and the training factor has a Cronbach's Alpha coefficient of 0.87. These figures show that the items used to measure training were reliable and valid.

Performance appraisal: all four original items were retained after EFA. These items had factor loadings that varied from 0.740 to 0.866 and the performance appraisal factor had a Cronbach's Alpha coefficient of 0.84. These figures confirm that the items used to measure reliability were reliable and valid.

Incentive compensation: all three items selected from previous studies were retained after EFA. These items had factor loadings that varied from 0.845 to 0.892 and the incentive compensation factor had a Cronbach's Alpha coefficient of 0.88. These figures prove that the items used to measure incentive compensation were reliable and valid.

All remaining items had factor loadings and all factors had a Cronbach's Alpha greater than 0.7; therefore, the measurement scales were reliable and valid.

Table 1:
Factor Analysis

Variables / items	Factor loading	Cronbach's Alpha
Training		0.87
Percentage of the employees receiving formal training	.881	
Percentage of the employees receiving informal training	.753	
Number of formal training hours per employee / total working hours per employees (%)	.832	
Number of informal training hours per employee / total working hours per employees (%)	.860	
Average training expenditure per employee / average salary (%)	.858	
Performance appraisal		0.84
Percentage of the employees receiving formal performance appraisal	.854	
Percentage of the employees having job performance appraised based on objective criteria	.866	
Percentage of the employees having job performance appraised based	.740	
Percentage of the employees having performance appraisal used in determining incentive compensation	.860	
Incentive compensation		0.88
Percentage of the employees receiving incentive compensation.	.845	
Percentage of the employee's total compensation accounted for by bonuses	.892	
Importance of job performance in determining the employee's earnings (response score / maximum values of 7, (%))	.888	
Importance of firm performance in determining the employee's earnings (response score / maximum values of 7, (%))	.871	

4.2 Regression Analysis

As shown in Table 2, R Square was equal to 0.452. This means that 45 % of the variance in the dependent variable could be attributed to changes in three independent variables.

Table 2:
Model Summary

Model	R.	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672	.452	.423	.5179

As demonstrated in Table 30, F- statistics of the model was 16.0, significant at $p < 0.000$. Therefore, it is concluded that the set of independent variables (training, T; performance appraisal, PA; and incentive compensation, IC) as a whole have effects on the dependent variable (performance, FP).

Table 3:
ANOVA

Model	Sum of Squares	Difference (df)	Mean Square	F	summary (Sig.)
1 Regression	38.632	9	4.292	16.006	.000
Residual	46.930	175	.268		
Total	85.562	184			

As shown in Table 4, significant coefficients of T and IC were 0.000, and that of PA was 0.007. Therefore, training (T), performance appraisal (PA), incentive compensation (IC) have positive and significant effects on SME performance (FP).

Table 3:
Regression Coefficients

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	Beta		
I (Constant)	4.959	.093		53.362	.000 ^e
T	.171	.042	.249	4.111	.000 ^e
PA	.114	.042	.169	2.714	.007
IC	.301	.041	.443	7.387	.000 ^e

The results of regression analysis support three theoretical hypotheses. Particularly:

Hypothesis 1: There is a positive relationship between training and SME performance was supported with $\beta = 0.171$ (p at $< 0.000^e$).

Hypothesis 2: There is a positive relationship between performance appraisal and SME performance was supported with $\beta = 0.114$ (p at < 0.007).

Hypothesis 3: There is a positive relationship between incentive compensation and SME performance was supported with $\beta = 0.301$ (p at $< 0.000^e$).

5. CONCLUSIONS, IMPLICATIONS

5.1 Conclusions

Conclusion 1, there is a positive relationship between training and firm performance of manufacturing SMEs in Hanoi. The reason is that training affects labor quality, while labor quality is an important factor responsible for firm performance. This finding is consistent with the results done by Bartel, 1994; Kalleberg and Moody, 1994; and Huselid, 1995.

Conclusion 2, there is a positive relationship between performance appraisal and SME performance in Ha Noi. This finding is consistent with the results reported by Martell, Gupta and Carroll (1996), and Roberts (1995).

Conclusion 3, there is a positive relationship between incentive compensation and SME performance in Ha Noi. This finding is consistent with results of previous research by Yao, 1997; Kruse, 1993; Kallerberg and Moody, 1994; Bryson, 1999.

Conclusion 4, among three factors, incentive compensation has the strongest effect on firm performances, followed by training and then by performance appraisal. The findings indicate that investment in training, performance appraisal, and incentive compensation are likely to improve firm performance.

5.2 Implications

Theoretically, this study partly clarifies the conflicting results of the previous studies on the relationships between training, performance appraisal, and incentive compensation on firm performances.

Second, the study confirms the important roles of HRM in improving firm performance and that traditional sources of competitive advantage (technology, economies of scale, patent) have diminished in value, the role of a skilled, motivated and flexible workforce has become more important (Huselid and Becker, 1997).

Third, the study suggests that enhancing training, appraisal performance, and incentive compensation is the right strategy to improve firm performance of SMEs in manufacturing sector in Ha Noi, Vietnam.

5.3 Limitations and Further Research

Firstly, the conclusions of this study were limited by the geographical representation and the selected business sector. This suggests that future research should replicate this study using other samples of manufacturers in various cities and provinces, and of enterprises operating in other industry sectors.

Secondly, this study examined relationships between three major aspects of human resource management and SME performance, while effects of other HRM activities, such as staffing, selection and recruitment, and motivation on firm performance have not been investigated. Future research may therefore examine relationships between such HRM activities and firm performance as above mentioned.

Thirdly, this study was limited to SMES in Ha Noi. This suggests that future research should be conducted in other provinces/cities or elsewhere to add more empirical evidence of the impact of HRM practices on business performance.

Finally, this study focused on effects of HRM practices on firm-level performance rather than on employee-level performance. Future research may also address relationships between HRM activities and employee performance.

REFERENCES

1. Baldwin, J., W. Chandler, C. Le, and T. Papailiadis (1994). *Strategies for success: A profile of growing small- and medium-sized enterprises (GSMJs) in Canada*, Statistics Canada, Ottawa.
2. Beal, R. M. (2000). Competing effectively: Environmental scanning, competitive strategy, and organizational performance in small manufacturing firms, *Journal of Small Business Management*, 38(1), 27-47.
3. Boothby, D. Dufour, A, and Tang, J (2010). Technology adoption, training and productivity performance, *Research Policy* 39, 650–661
4. Buller ,P.F., McEvoy , G.M. (2012). Strategy, human resource management and performance: Sharpening line of sight, *Human Resource Management Review* 22, 43–56
5. Cable, J., and N. Wilson (1989). Profit sharing and productivity: An analysis of UK engineering firms, *Economic Journal*, 100(396), 366-375.
6. Cooke, W. N. (1994). Employee participation, group-based incentives, and company performance: A union-nonunion comparison, *Industrial and Labor Relations Review*, 47(4), 594-609.
7. Delaney, J. T., and M. A. Huselid (1996). The impact of human resource management practices on perceptions of organizational performance, *Academy of Management Journal*, 39(4), 949-969.
8. Esbashi, M., H. Sakai, and N. Takada (1997). *Development policy on SMEs and supporting industries in Vietnam*, the Ministry of Planning and Investment, Hanoi.
9. Flanagan, D. J., and S. P. Deshpande (1996). Top management's perceptions of changes in HRM practices after union elections in small firms, *Journal of Small Business Management*, 34(4), 23-34.
10. Fuller, D E., and D M. Forsaith (1994). Training and competitiveness in the small enterprise sector: Evidence from the plastics industry, *Institute of Industrial Economics*, 75-97.

11. Holzer, H. J., R. N. Block, M. Cheatham, and J. H. Knott (1993). Are training subsidies for firms effective? The Michigan experience, *Industrial and Labor Relations Review*, 46(4), 625-636.
12. Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance, *Academy of Management Journal*, 38(3), 635-672.
13. Huselid, M. A., and B. E. Becker (1996). Methodological issues in cross-sectional and panel estimates of the human resource-firm performance link, *Industrial Relations*, 35(3), 400-422.
14. Huselid, M. A., and B. E. Becker (1997). *The impact of high performance work systems, implementation effectiveness, and alignment with strategy on shareholder wealth*, Paper presented at the 1997 Academy of Management
15. Kalleberg, A. L., and J. W. Moody (1994). Human resource management and organizational performance, *American Behavioral Scientist*, 37(7), 948-962.
16. Kaufman, R. T. (1992). The effect of IMPROSHARE on productivity, *Industrial and Labor Relations Review*, 45(2), 311-322.
17. Kruze, D. L. (1993). Profit sharing. Does it make a difference? The productivity and stability effects of employee profit sharing plans, *Upjohn Institute for Employment Research*, Kalamazoo, MI.
18. Leonard, J. S. (1990). Executive pay and firm performance, *Industrial and Labor Relations Review*, 43(3), 13-29.
19. Martell, K., A. Gupta, and S. J. Carroll (1996). Human resource management practices, business strategic, and firm performance: A test of strategy implementation theory, *IBAR - Irish Business and Administrative Research*, 17(1), 18-35.
20. Millar, P. and Stevens, J. (2012). Management training and national sport organization managers: Examining the impact of training on individual and organizational performances, *Sport Management Review* 15, 288-303
21. Mitsudome, T., Weintrop, J. Hwang, L.S (2008). The relation between changes in CEO compensation and firm performance: A Japanese/American comparison J. *Japanese Int. Economies* 22, 605-619
22. Murphy, A. J. (1980). Appraisal and the small company, *Personnel Review*, 9(4), 15-20.
23. Sadler-Smith, E., A. Sargeant, and A. Dawson (1998). Higher level skills training and SMEs, *International Small Business Journal*, 16(2), 84-94.
24. Sapienza, H. J., K. G. Smith, and M. J. Gannon (1988). Using subjective evaluations of organizational performance in small business research, *American Journal of Small Business*, 12(2), 45-53.
25. Westhead, P., and D. Storey (1997). Training provision and the development of small and medium-sized enterprises, *International Small Business Journal*, 17(2), 101-104.
26. Yao, S. (1997). Profit sharing, bonus payment, and productivity: A case study of Chinese state-owned enterprises, *Journal of Comparative Economics*, 24, 281- 296.
27. Zikmund, W. G. (1997). *Business research methods*, 5th ed., Dryden Press, New York.