EFFECTS OF THE PROVISION OF TRAINING AND FRINGE BENEFITS TO WORKERS ON PERFORMANCE OF MANUFACUTURING SMES

Vu Hoang Nam[*]

Abstract:

There are few rigorous empirical studies about the roles of human resource management practices (HRM) in performance of SMEs in transition economies. Based on a dataset from surveys of manufacturing SMEs in Vietnam, the study finds that SMEs' owners/managers educational background has direct and indirect effects on HRM outcomes and SMEs performance and that HRM practices including provision of training and fringe benefits to workers raise labor productivity and improve performance of SMEs.

Keywords: *Human resource management, performance, SME, Vietnam*

1. INTRODUCTION

In the economic development of transition and developing countries, SMEs play a key role. According to OECD (2004), SMEs typically account for more than 90% of non-farm enterprises and generate a great number of job opportunities that help reduce poverty. In developing countries in the Asia-Pacific region, SMEs play a central role in promoting economic dynamism, innovation and job creation (UN 2012). SMEs, however, face various constraints including limited access to human resources, finance, and infrastructure. SMEs also encounter complicated procedures in setting up, operating, and growing their businesses.

Among various policies to promote the development of SMEs, tackling the shortage of high-quality human resources is considered as the most effective one. There is a large body of literature on the effects of promoting high-quality human resources on performance of SMEs. In a series of studies conducted in industrial clusters in Asia and Africa, it is found that multifaceted innovation in products, production organization, and marketing is crucial to the improved performance of the enterprises. These studies also show that enterprises with highly educated entrepreneurs

[*] PhD, Foreign Trade University. E-mail: hoangnamftu@yahoo.com

and workers tend to carry out more innovation (Akoten and Otsuka 2007; Cawthorne 1995; Gereffi 2001; Giuliani, Pietrobelli, and Rabellotti 2005; Nadvi 1999; Rabellotti 1995; Schmitz 1999; Sonobe, Akoten, and Otsuka 2007).

Regarding human resource management (HRM) of enterprises, it is theoretically found that better HRM may lead to better HRM outcomes and performance of enterprises (Beer et al. 1984; Guest 1987; Schuler 1988). Results of the empirical studies on the effects of HRM on performance of enterprises are, however, mixed. HRM is found to enhance firm performance in some studies (Huselid 1995 and Youndt et al. 1996). In other studies, HRM has weak or insignificant effects on firm performance (Dunphy and Stace 1992; Purcell 1995; Lee and Chee 1996; Wong et al. 1997). Moreover, there have been few rigorous studies about the link between HRM and firm performance of SMEs in transition economies. One exception is Zheng (2013), in which HRM concentrating on incentive management is the the best way for the Chinese SMEs to gain better enterprise performance. This study was, however, based on a small number of observations and did not effectively analyze the cause and effect relationship between HRM and enterprise performance.

There are a number of studies about SMEs in Vietnam, which often focus on exploring the effects of innovations and human capital on performance (Hansen, Rand, and Tarp 2004; CIEM 2012; Nguyen et al. 2008; Vu, Sonobe, and Otsuka 2009). The only study that mentions about HRM in SMEs in Vietnam is Rand and Tarp (2011). However, in this study they only show that female entrepreneurs tend to provide more fringe benefits such as annual leave, social benefits, and health insurance to their employees. Other than that, there is no rigours study about the relationship between HRM and performance of SMEs in Vietnam.

This study fills the gap in literature by empirically analyzing the effects of HRM practices on performance of SMEs in a transition economy by using data from surveys of SMEs conducted by the Central Institute of Economic Management (CIEM), the Institue of Labor, Science and Social Affairs (ILSSA), the University of Copenhagen, UNU-WIDER, and the Embassy of Denmark in Vietnam from 2005 to 2011. It is found that better HRM practices, which is measured by SMEs' better provision of training and finge benefits to workers, is positively associated with higher labor productivity and better enterprise performance. The study further reveals that human capital of the owner/manager and being located in industrial zone/park are two important determinants of HRM outcomes and performance of SMEs.

The rest of the paper is organized as follows. Part 2 provides an overview of SMEs in Vietnam. Part 3 presents data analysis and advances testable hypotheses followed by regression analysis presented in Part 4. Part 5 concludes the paper with some policy implications.

2. OVERVIEW OF SMES IN VIETNAM

In Vietnam, SMEs are defined as independent enterprises with registered capital of no more than 20 billion VND or employing fewer than 300 workers on average over a year (Chinh Phu, 2009). SMEs in Vietnam include state-owned enterprises, non-state enterprises, and foreign invested enterprises,

the majority of which are non-state enterprises. A large number of the SMEs are in trade, manufacturing, and service industries.

About 97% of the enterprises in Vietnam are small enterprises (Table 1) but they contribute greatly to the economy. According to CIEM (2012), about 70% of the number of SMEs had micro size, of which many were household enterprises, and only about 6% had medium size.[1] Nevertheless, during the last several decades, SMEs have emerged as a dynamic force for economic development in Vietnam (Hansen, Rand, and Tarp 2004). SMEs account for half of total employment among all types of enterprises. A fair proportion of total capital was invested by SMEs and SMEs generate about half of total revenue of all enterprises in Vietnam.

Table 1: SMEs in the economy of Vietnam

	2005	2006	2007	2008	2009	2010
Total number of enterprises (1000)	112	129	156	206	249	286
Percentage of number of SMEs	97	97	97	98	98	98
Average number of workers per SME	23	22	21	19	18	17
Percentage of employment by SMEs	41	44	43	47	50	50
Percentage of capital of SMEs	32	50	36	38	42	47
Percentage of revenue of SMEs	48	54	53	57	59	54

Source: author's calculation from data collected from General Statistics Office of Vietnam

Due to impacts of the global financial crisis during the last few years, the SME sector has faced great difficulties. According to a report of CIEM (2012), 60% of the surveyed SMEs reported that the crisis negatively affected their businesses and they have reduced new investment and innovation in 2011 compared to 2009. Out of more than 2,500 SMEs that participated in the survey in 2009, about 20% have closed by 2011 for reasons including increasing difficulty in accessing credit, increasing inventories, and difficulties in employing skilled labor. During the first nine months of 2012, about 42,000 SMEs were closed and 60% of the SMEs surveyed have reduced their number of employees.

3. DATA ANALYSIS AND TESTABLE HYPOTHESES

Data

This study is based on a dataset from four surveys of manufacturing SMEs conducted in Vietnam in 2005, 2007, 2009, and 2011. These surveys were jointly conducted by the Central Institute of Economic Management (CIEM), the Institue of Labor, Science and Social Affairs (ILSSA), the University of Copenhagen, UNU-WIDER, and the Embassy of Denmark in Vietnam. The total number of observations in these four surveys is 10,667. Each year, a number of new SMEs were added to the survey to replace SMEs that have exited. Due to missing values, 80

1 SMEs include micro, small, and medium enterprises. Micro enterprises have 1-9 workers. Small enterprises have 10-49 workers. Medium enterprises have 50-299 workers.

observations were dropped and, thus, a total of 10,587 observations remain for the analysis in this study. The dataset contains data on characteristics of the owners/managers of the SMEs and data on cost, revenue, activities on human resource management, and other related information in the year 2004, 2006, 2008, and 2010, respectively.

General characteristics of the owners/ managers and the sampled SMEs

Table 2 presents basic characteristics of the owners/managers and the sampled SMEs**.** According to this table, most of the owners/ managers of SMEs in Vietnam have their ages of around 45. Most of them are male and belong to the group of Kinh ethnicity. Regarding formal general education, the percentage of the owners/managers who have completed university degree increased substantially from 2.1% in 2004 to 24% in 2010, suggesting that the owners/managers of SMEs in Vietnam have become more educated overtime. The majority of the owners/ managers have knowledge about at least one out of many laws including enterprise law, cooperative law, labor code, customs law, insurance law, tax law, environmental law, land law, investment law, social insurance law, gender equality law.

In the literature, knowledge and skills of entrepreneurs are important determinants of labor productivity and performance of enterprises, which can be measured by gross profit, in various industrial clusters of manufacturing enteprirses in African countries (Akoten, Sawada, and Otsuka 2006; Akoten and Otsuka 2007; Iddrisu and Sonobe 2006; Mengiste 2006; Nichter and Goldmark 2009). Sonobe et al. (2007) show that in a footwear cluster in Ethiopia the highly-educated entrepreneurs perform better than other. Sonobe and Otsuka (2006) indicate that in both countries in Asia and in Africa enterprises of more educated

Table 2: Characteristics of the owners/managers and the sampled SMEs

	2004	2006	2008	2010
Owners/managers				
Average age of the owners/managers	43.7	44.3	44.7	44.8
Percentage of male owners/managers	69.2	66.8	65.6	62.7
Percentage of owners/managers who are Kinh ethnicity	93.4	93.6	93.3	92.9
% Owners/managers who completed college/university	2.1	1.3	20.7	24.0
% Owners/managers who know at least one law	80.6	81.4	84.0	83.9
Number of persons in owners/managers' household	4.9	4.8	4.7	4.5
Sampled SMEs				
Years of operation	10.6	12.4	13.5	12.4
% Being located in industrial zone/park	2.9	6.1	5.1	4.8
Number of enterprises	2,803	2,621	2,653	2,510

Source: author's calculation from the dataset

managers tend to have better performance. In addition, Vu et al. (2010) confirm that the proprietors of knitwear enterprises in Vietnam who are more educated and more experienced in production and marketing export more and have larger value added. Given the fact in Table 2 about the increase in educational levels of the owners/managers and empirical results in the literature, the following hypothesis is advanced:

H1: *Highly-educated owners/managers achieve higher labor productivity and better performance.*

Table 2 also presents some characteristics of the sampled enterprises. The average years of operation of the sampled enterprises were from around 10 to 13 years. Not many of the sampled SMEs were located in industrial zone/park. Nevertheless, more and more SMEs were located in industrial zone/park in the years 2006, 2008, and 2010 compared to the year 2004.

HRM practices and outcomes of the sampled SMEs

Table 3 presents HRM practices of the sampled SMEs in different years. The HRM practices of the sampled SMEs are devided into four groups: training workers including new and exisiting workers, job rotation system, trade union, and fringe benefits paid to the workers. Generally, a small percentage of the sampled SMEs offered training, job rotation systems, trade unions and fringe benefits to their workers. Nevertheless, more SMEs paid basic fringe benefits including social insurance, accident compensation, sick leave, maternal leave with payment and without payment, and annual leave to their workers. This finding suggests that SMEs in Vietnam could not afford to pay more than basic fringe benefits to their workers. This is understandable due to weak financial capacity of SMEs and due to other reasons.

Table 3: HRM practices of the sampled SMEs

	2004	2006	2008	2010
% that trained new workers	13.3	18.0	6.4	6.9
% that trained existing workers	5.6	5.8	3.1	6.1
% that had automatic rotation system	27.7	9.3	7.6	5.8
% that had trade union	9.6	10.1	8.8	8.7
% that offered severance pay due to worker incompetence	5.8	6.4	4.9	4.7
% that offered severance pay due to general cutback in firm	19.5	8.7	8.1	17.3
% that paid social insurance	15.4	16.2	19.4	20.4
% that paid accident compensation	42.4	29.3	24.4	31.5
% that paid sick leave	30.5	26.7	28.3	24.0
% that paid maternal leave	18.1	17.7	19.5	21.8
% that offered maternal leave without pay	19.6	23.4	29.3	30.1
% that paid anual leave	22.0	18.6	21.4	22.5
Number of enterprises	2,803	2,621	2,653	2,510

Source: author's calculation from the dataset

This finding has two possible implications. First, basic fringe benefits are very important for workers and, thus, SMEs tried their best to offer them. Second, workers of SMEs were not given much of other benefits such as training and severance pay so that SMEs that offered these additional benefits might have had their workers working much harder.

Table 4 presents differences in HRM outcomes between SMEs that carried out HRM practices and those that did not in 2010. As indicated in the studies by Beer et al. (1984) and Guest (1987), there are many indicators that can be used to measure HRM outcomes, of which labor productivity is most commonly used. Therefore, in this study we

Table 4: Labor productivity of the sampled SMEs in 2010

	Yes or No	Labor productivity (billion VND)	Number of enterprises
Trained new workers	Y	9.1***	173
	N	3.1	2,349
Trained existing workers	Y	8.6***	154
	N	3.2	2,356
Had automatic rotation system	Y	7.2***	147
	N	3.3	2,363
Had trade union	Y	10.7***	218
	N	2.9	2,292
Offered severance pay due to worker incompetence	Y	8.5***	118
	N	3.3	2,392
Offered severance pay due to general cutback in firm	Y	7.2***	434
	N	2.8	2,076
Paid social insurance	Y	10.1***	512
	N	1.9	1,998
Paid accident compensation	Y	7.0***	790
	N	1.9	1,720
Paid sick leave	Y	9.1***	603
	N	1.8	1,907
Paid maternal leave	Y	9.7***	548
	N	1.8	1,962
Offered maternal leave without pay	Y	4.4***	756
	N	3.2	1,754
Paid anual leave	Y	9.6***	565
	N	1.8	1,945
Number of enterprises			2,510

Source: author's calculation from the dataset

Table 5: Performance of the sampled SMEs

	2004	2006	2008	2010
Average number of regular full-time workers	18.53	17.73	14.80	14.11
Real gross profit	0.21	0.23	0.25	0.25
Number of enterprises	2,803	2,621	2,653	2,510

Source: author's calculation from the dataset

Table 6. HRM practices and performance the sampled SMEs in 2010

	Yes or No	Real gross profit (billion VND)	Number of enterprises
Trained new workers	Y	1.3***	173
	N	0.2	2,349
Trained existing workers	Y	0.4	154
	N	0.2	2,356
Had automatic rotation system	Y	0.7***	147
	N	0.2	2,363
Had trade union	Y	1.2***	218
	N	0.2	2,292
Offered severance pay due to worker incompetence	Y	0.7***	118
	N	0.2	2,392
Offered severance pay due to general cutback in firm	Y	0.8***	434
	N	0.1	2,076
Paid social insurance	Y	0.9***	512
	N	0.1	1,998
Paid accident compensation	Y	0.6***	790
	N	0.1	1,720
Paid sick leave	Y	0.8***	603
	N	0.1	1,907
Paid maternal leave	Y	0.9***	548
	N	0.1	1,962
Offered maternal leave without pay	Y	0.3	756
	N	0.2	1,754
Paid anual leave	Y	0.9***	565
	N	0.1	1,945
Number of enterprises			2,510

Source: author's calculation from the dataset

use labor productivity, which is calculated by value added over number of regular full-time workers, to measure HRM outcome of SMEs. For all types of HRM practices, the SMEs that carried them out had higher labor productivity than others. The differences in labor productivity are from 1.4 times to 5.4 times and are all statistically significant at 1% significant level. This finding indicates that HRM practices have significant effects on HRM outcomes of SMEs. This finding is also in line with other studies by Beer et al. (1984), Guest (1987) and Schuler (1988) showing that better HRM practices improve HRM outcomes, which include labor productivity of enterprises. It is, therefore, reasonable to postulate the following hypothesis:

H2: *The SMEs that offer training and fringe benefits to workers tend to have higher labor productivity than others.*

Performance of the sampled SMEs

Operation size, which is measured by number of full-time workers, and performance of the sampled SMEs, which is measured by gross profit, is presented in Table 5. There was gradual contraction in operation size of SMEs during the study period. There was a decrease, which is statistically significant at 1% level, in the average operation size of the SMEs between 2004 and 2010. Real gross profit of SMEs, which is calculated by deviding gross profit by GDP deflators of respective years, increased slightly. Nevertheless, the increase was not statistically significant.

Table 6 compares performance measured by real gross profit of the SMEs that practiced HRM and those that did not in 2010. Real gross profit of the SMEs that practiced HRM was higher than the SMEs that did not. Except the two differences in gross profit between the SMEs that trained existing workers and the SMEs that did not and between the SMEs that paid maternal leave to workers and the SMEs that did not, all of the other differences were highly significant. In other studies, it is found that HRM decisions are likely to have important and positive effects on performance of enterprises (Guest, 1987; Youndt et al., 1996; Becker and Gerhart, 1996; Boxall, 1996; Bowen and Ostroff, 2004). As a result, it is reasonable to postulate the following hypothesis:

H3: *The SMEs that provide workers with training and fringe benefits have larger gross profit than others.*

4. REGRESSION ANALYSIS

Regression strategy

This study intends to show that HRM practices affect HRM outcomes and HRM outcomes affect performance of SMEs. To show these effects, two-stage regressions are ideally suitable. In the first-stage, both HRM outcomes and performance of SMEs are regressed on the same set of independent variables including human capital and other characteristics of the owners/managers, characteristics of SMEs and HRM practices. In the second stage, performance will be regressed on HRM outcomes of SMEs.

Specifically, in the first stage, the following regression model is used:

$$FP = \beta_0 + \beta_1 X + \beta_2 HRM + \beta_3 HRM + \varepsilon \quad (1)$$

where FP is either HRM outcomes, which are measured by labor productivity, or performance of SMEs, which is measured by real gross profit, X is a vector which includes variables for characteristics of the owners/

managers including dummy variables for age, gender, ethnicity, a variable for number of people in the owner/manager's household, a variable for years of establishment of SMEs and a dummy variable for the locations of SMEs indicating whether they are located in industrial zone/park, *HK* is a vector for human capital of the owners/managers including dummy variables for their university level and knowledge about laws, *HRM* is a vector of dummy variables for HRM practices including provision of training to new workers, provision of training to existing workers, setting up a job rotation system, offering severance pay due to worker incompetence, offering severance pay due to general cutback in SMEs, establishing trade unions in SMEs, offering social insurance, offering accident compensation, offering sick leave payment, offereing maternal leave payment, offereing maternal leave without payment, and offereing annual leave payment. These first-stage regressions will reveal effects of two main interested factors, i.e. human capital of the owners/managers and HRM practices, on HRM outcomes and performance of SMEs. In the first-stage regressions, Fixed Effect models are used.

In the second stage, the following regression model is used:

$$P = \beta_0 + \beta_1 X + \beta_2 HRMO + \varepsilon \quad (2)$$

where *P* is performance of SMEs measured by real gross profit, *X* is the same vector as in the first-stage regressions, *HRMO* is a vector for HRM outcomes, which are measured by labor productivity of SMEs. The relationship between *HRMO* and *P* is potentially endogenous. The endogeneity problem arises not only from the fact that HRM outcomes are endogenous variables but also that HRM practices are also affected by factors such as characteristics of SMEs and characteristics of the owners/managers. As a result, direct estimation of equation (2) by using an OLS model without taking the endogeneity into account will lead to a biased estimate of the effects of HRM outcomes on performance of SMEs. This is because *HRMO* may be correlated with the error term. An ideal solution to deal with the endogeneity problem is the instrumental variable approach (IV) model. Application of the IV model amounts to finding of an instrumental variable that affects *HRMO* but does not affect *P* directly. Unfortunately, we have not been able to find such an instrumental variable. Thus, we decided to apply the Fixed Effect model for the second-stage regressions. The Fixed Effect model cannot solve the endogeneity problem completely but help to remove the effects of unobserved time-invariant variables and neutralize the impact of the endogenous variable.

Regression results

The regression results are presented in Table 7 and Table 8. In all of the regression functions, FE models are applied. Regressions in Table 7 are first-stage and correspond to equation (1) mentioned above. Regressions in Table 8 are second-stage and corrpesond to equation (2) metioned above.

In Table 7, labor productivity, which is used to measure HRM outcomes, is regressed on two set of independent variables. The first set includes variables that reflect characteristics of the owners/managers of SMEs and characteristics of SMEs. The second set includes HRM practice variables. In the two

regressions in Table 7, university education and knowledge about laws of the owners/ managers have positive and significant effects on labor productivity. This finding is similar to many other studies about SMEs in Vietnam, suggesting that human capital of the owners/ managers is important for raising productivity of SMEs. Therefore, it supports hypothesis H1. It is also interesting to find that the SMEs that had fewer years of operation or younger SMEs and the SMEs that are located in industrial zones/parks had higher labor productivity than others. Regarding the effects of HRM practices on labor productivity, it is revealed that except the variables of training to new workers and severance pay due to general cutback in firms all other variables for HRM practices including provisio of training and fringe benefits to workers have positive and significant effects on labor productivity. This finding supports Hypothesis H2, indicating that HRM practices are important for HRM outcomes in SMEs in Vietnam.

Table 7: Determinants of HRM outcome

	Labor productivity	**Labor productivity**
Owner/manager with university degree	5.296***	3.023***
	(0.22)	(0.22)
Owner/manager who knows at least one law	2.537***	1.468***
	(0.17)	(0.17)
Owner/manager's age	0.003	0.008
	(0.01)	(0.01)
Owner/manager's gender (male=1)	-0.758***	-0.423***
	(0.14)	(0.13)
Owner/manager's ethnicity (Kinh=1)	0.778***	1.081***
	(0.26)	(0.25)
Years of operation of the SMEs	-0.049***	-0.036***
	(0.01)	(0.01)
No. of members in owner/manager's household	-0.027	-0.017
	(0.04)	(0.03)
Location of SMEs (industrial zone/park=1)	3.357***	1.668***
	(0.31)	(0.30)
Train new worker (Yes=1)		0.335
		(0.21)
Train existing worker (Yes=1)		1.096***
		(0.29)
Job rotation system (Yes=1)		0.329*
		(0.20)
Severance pay due to worker incompetence (Yes=1)		0.749**
		(0.31)

Severance pay due to general cutback in firm (Yes=1)		0.024
		(0.22)
Trade Union (Yes=1)		0.526*
		(0.27)
Social insurance (Yes=1)		1.469***
		(0.29)
Accident compensation (Yes=1)		1.099***
		(0.17)
Sick leave payment (Yes=1)		0.512**
		(0.23)
Maternal leave with payment (Yes=1)		1.690***
		(0.31)
Maternal leave without payment (Yes=1)		0.574***
		(0.15)
Annual leave payment (Yes=1)		1.322***
		(0.25)
Constant	-2.058	-4.602
	(4.69)	(4.46)
Number of SMEs	10,587	10,587

*Note: All regressions consist of sectoral variables. Figures in brackets are absolute values of standard errors. *, **, and *** presents statistically significant levels at 10%, 5%, and 1%, respectively.*

Table 8 presents regression results of determinants of performance of SMEs. The regressions in this table are second-stage regressions, which are used to analyze effects of HRM outcomes on performance of SMEs. In these regressions, real gross profit is used to proxy for performance of SMEs. In this table, real gross profit is also regressed on the variable for HRM outcomes, which is labor productivity, and the same two sets of independent variables as specified in Table 7.

Effects of the owner/manager and enterprise characteristics and HRM outcomes on performance of SMEs are presen ted in regressions in Table 8. In the first column, human capital of the owner/managers and location of SMEs inside of industrial zones/ parks have positive and significant effects on performance of SMEs. This finding supports hypothesis H1. Together with the findings in Table 7 it is confirmed that human capital of the owners/managers and locations of SMEs are two important determinants of SMEs' performance in Vietnam.

In Table 8, the variables training of new and existing workers have positive and significant effects on real gross profit, revealing the importance of training workers to performance of SMEs in Vietnam. The variable serverance pay due to worker imcompetence has positive and significant signs in regressions for labor productivity Table 7 but in Table 8 it has negative and significant signs. This finding suggests that the lay off of incompetent workers helps to increase labor productivity

and the servance payment to these workers reduces gross profit of the SMEs. In contrast, the effects of serverance payment due to general cutback in firms on labor productivity as presented in Table 7 and on performance of SMEs as presented in Table 8 are different. This type of payment has no effect on labor productivity but has positive effects on gross profit, suggesting that the lay off of workers during recession period of SMEs does not affect HRM outcomes but helps to improve performance of SMEs. In addition, setting up a trade union and payment of social insurance both help to increase labor productivity and performance of SMEs as the results in Table 7 and 8 suggest. All of these findings support Hypothesis H3.

It is noted that in the Column (1) of Table 8 the coefficient of the labor productivity variable is positive and highly significant at 1% level. This finding shows that HRM outcomes, which are measured by labor productivity, determine SMEs' performance.

We also get other interesting findings in both Table 7 and Table 8. In Column (2) and (3) of Table 8, the coefficients of the university degree of the owners/managers, their knowledge about laws, and location of SMEs variables are positive but no longer significant, suggesting that their effects on performance of the SMEs have been transimitted through the HRM practices and HRM outcome. The final note is that in the existence of the variable for HRM practices in Table 8 the variable HRM outcomes, which are proxied by labor productivity, is still positive but no longer significant, suggesting that HRM practices have direct effects on performance of SMEs apart from its indirect effects on HRM outcomes.

Table 8: Determinants of performance of SMEs

	Real gross profit (1)	Real gross profit (2)	Real gross profit (3)
Owner/manager with university degree	0.304***	0.100	0.101
	(0.07)	(0.07)	(0.07)
Owner/manager who knows at least one law	0.124**	0.047	0.048
	(0.06)	(0.06)	(0.06)
Owner/manager's age	-0.003	-0.003*	-0.003*
	(0.002)	(0.002)	(0.002)
Owner/manager's gender (male=1)	-0.135***	-0.105**	-0.106**
	(0.05)	(0.04)	(0.04)
Owner/manager's ethnicity (Kinh=1)	0.051	0.106	0.106
	(0.08)	(0.08)	(0.08)
Years of operation of the SMEs	0.002	0.002	0.002
	(0.002)	(0.002)	(0.002)

No. of members in owner/manager's household	-0.006	-0.003	-0.003
	(0.01)	(0.01)	(0.01)
Location of SMEs (industrial zone/park=1)	0.337***	0.131	0.132
	(0.10)	(0.10)	(0.10)
Labor productivity (va/regular full-time worker)	0.011***		0.0003
	(0.003)		(0.003)
Train new worker (Yes=1)		0.198***	0.198***
		(0.07)	(0.07)
Train existing worker (Yes=1)		0.394***	0.394***
		(0.10)	(0.10)
Job rotation system (Yes=1)		0.083	0.083
		(0.07)	(0.07)
Severance pay - worker incompetence (Yes=1)		-0.199*	-0.198*
		(0.10)	(0.10)
Severance pay – general cutback in firm (Yes=1)		0.202***	0.202***
		(0.07)	(0.07)
Trade Union (Yes=1)		0.582***	0.582***
		(0.09)	(0.09)
Social insurance (Yes=1)		0.227**	0.228**
		(0.10)	(0.10)
Accident compensation (Yes=1)		-0.078	-0.078
		(0.06)	(0.06)
Sick leave payment (Yes=1)		-0.044	-0.044
		(0.08)	(0.08)
Maternal leave with payment (Yes=1)		0.088	0.089
		(0.10)	(0.10)
Maternal leave without payment (Yes=1)		0.064	0.065
		(0.05)	(0.05)
Annual leave payment (Yes=1)		0.098	0.098
		(0.08)	(0.08)
Constant	-0.012	-0.456	-0.458
	(1.50)	(1.48)	(1.48)
Number of SMEs	10,587	10,587	10,587

5. CONCLUSION

Despites many studies analyzing determinants of performance of SMEs, little is known about the roles of HRM practices and HRM outcomes in SMEs in transition economies. This study inquires into the effects of HRM practices and HRM outcomes on performance of SMEs in Vietnam. The findings of the study reveal that HRM practices of SMEs including training of workers, setting up trade unions, implementing job rotation systems, and offering various fringe benefits to the workers are positively correlated with HRM outcomes, which are measured by labor productivity, and performance of SMEs, which is measured by real gross profit. Moreover, the study shows that HRM outcomes play an important role in performance of SMEs. This finding suggests that raising awareness of the entrepreneurs of SMEs about importance of HRM and providing them with better knowledge and skills in HRM practices would be essential for the development of SMEs in transition economies.

The study also finds direct and indirect effects of human capital of the owners/ managers of SMEs and location of SMEs in industrial zones/parks on labor productivity and performance. These findings suggest that public provision of education and training to the owners/managers and better physical infrastructure such as industrial zones/parks shall warrant the development of SMEs.

There are certain limitations of this research. Using of Fixed Effects models is not ideal to tackle the endogeneity problem caused by the endogenous HRM outcome variable as indicated in the paper. Other dataset that contains instrumental variables should be expected to solve the problem. Moreover, the practices and outcomes of HRM presented in the research are limited and subject to availability of data. Such practices and outcomes do not fully represent HRM and, thus, a better dataset is expected to make future research to inquire more into possible channels that HRM may affect performance of SMEs.❑

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