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WORKING PAPER

Training, organizational strategy, and firm performance*

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Abstract

Although there has been growing studies of the effects of training on firm performance, research attention has been limited to the contextual conditional that moderate the training- firm performance relationship. In this study, we used a contingency approach to examines the relationship between training, organizational strategy and firm performance. Results of regression from The Vietnam Employer survey 2007 show that quality and flexibility strategies moderated the training - firm sales and productivity relationship. However, we found no significant of the moderating effects of cost strategy on the training- firm performance relationship.

Keywords: training; organizational strategy; firm performance

Introduction

The link between firm-provided training and organizational performance is now recognized as essential by most organizations (Black & Lynch, 1996; Garcia, 2005; Khatri, 2000). The knowledge and skills of employees through training activities have become important to firm performance. Preffer (1994) and Upton (1995) argued that success in today's competitive markets is determined primarily by human capital, not physical capital and strongly advocated greater firm investments in training in order to provide better knowledge, skills and capabilities for employees rather than their competitors. Accordingly, firms spending on training activities are expecting that it is instrumental for organizations to remain and enhance their employees skills and knowledge in order to create sustainable competitive advantage (Barney, 1991) and improve firm performance (Kozlowski et al., 2000; Salas & Cannon-Bowers, 2001).

Though training activities are strongly accepted to relate to firm performance, guided by contingency theory, we believe that training may be more beneficial for organizations if training is consistent with other characteristics of the organizations. For example, strategic human resource management researchers suggest that the impact of training on firm performance may gain better results if training activities are consistent with an organizational strategy (Jackson & Schuler, 1995; Miles & Snow, 1984; Wright et al., 1995). However, there are several different organizational strategies in contemporary settings. Thus, the contingency theory also suggests that researchers need to identify and classify the particular organizational strategy a firm adopts before they examine the relationship between training, organizational strategy, and firm performance.

Unfortunately, despite the growing studies on strategic human resource management, their studies have not provided a solid theoretical foundation for the choice of a contingency variable. We have chosen a contingency approach to explore the relationship between human

resource training, organizational strategy, and firm performance because of two reasons. Firstly, the contingency approach implies interactions rather than the simple linear relationship in a universal approach. Secondly, we would like to contribute into strategic human resource management literature by overcoming the above limitation on previous studies using a contingency approach. We hope that the research is an attempt to fill this gap.

The purpose of this paper was to examine whether organizational strategy will moderate the relationship between training and firm performance or not. The setting for this examination was of the firms operating in Vietnam and data from the Vietnam Employer Survey 2007. Our paper includes 5 sections. We discuss the theoretical advancements linking training, organizational strategy and firm performance as well as how to identify and classify between strategies a firm adopts in second section. In this section, several hypotheses are also offered. Data and variables that are used for estimation are described in third section. In the next section, we presented the results of regression analysis for training, organizational strategy, and firm performance. In the last section, we turn our discussion to theoretical and managerial implications. Limitations and directions for future research are interpreted and proposed in this section.

Theoretical background and Hypotheses

Although there is a strong belief that training is frequently acknowledged to play an important role in improving an organizations performance (Alliger et al., 1997; Kozlowski et al., 2000), the theoretical rationale for this relationship has been open to debate. Some authors have adopted a universalistic perspective to examine the link between training and firm performance. Universalistic perspective implies a direct linear relationship between training and firm performance. For example, some studies show that training activities are frequently correlated with sales, productivity, and turnover (Ahmad & Schroeder, 2003; Bishop 1991;

Black & Lynch 1996; Faems et al, 2005); Garcia, 2005; Rodriguez & Ventura, 2003; Zwick, 2006). Therefore, organizations that provide more training programs expect a higher firm performance.

Other researchers have developed arguments that are consistent with the contingency perspective (Bracker & Cohen, 1992; Khatri, 2000; Miles & Snow, 1984; Newkirk-Moore & Bracker, 1998). According to the contingency perspective, the relationship between training and firm performance is conditioned by an organization's strategic posture. It means that matching training with a firm strategy may increase organizational performance. More specifically, if a firm in competition depends on the skills and knowledge of its employees, training programs would be more likely to have an impact on firm performance. For example, Khatri (2000) found that training was related to sales growth if it was used in combination with organizational strategy, while Newkirk-Moore & Bracker (1998) found that organizations exhibited greater ROE when they trained senior managers in strategic planning.

Although contingency perspective implies that, in order to be effective, a training policy must be consistent with different strategic positions because an organization's strategy is considered to be the primary contingent factor in the strategic human resource management literature. There is a variety of strategies that can be used in an organization. Therefore, researchers are required to select primary strategies and then specify and examine how the training will interact with these organizational strategies to result in better organizational performance.

To select a theory of organizational strategy, Osterman (1994) have categorized the alternative organizational strategies into "high road" strategies and "low road" strategies. "High road" strategies focus on cost reduction, while "low road" strategies concentrate on quality, product and service, or market innovation as the central contingency variable. The content of the two categories suggests that there are three primary organizational strategies:

cost strategy, quality strategy, and flexibility strategy (Garvin, 1993; Leong et al., 1990; Upton, 1995). Therefore, on one hand, firms that highly standardize processes or reduce errors are considered a cost strategy. On the other hand, companies that focus on skill acquisition and innovation are consistent with a quality strategy, while firms that are agile, adaptable and responsive are considered a flexibility strategy.

There are a number of theoretical models that have been used to describe the link between training, organizational strategy, and firm performance in the strategic human resource management literature. First, the behavioral perspective (Jackson et al., 1989; Schuler, 1992; Wright & McMahan, 1992) implies that successful implementation of organizational strategy depends heavily on employee behavior because employee behavior is a primary mediator between strategy and firm performance. Thus, the organization should implement human resource practices to elicit, control, and reinforce those behaviors. For example, an organization can set up and use human resource practices that ensure that employees with the required abilities are hired and be motivated to behave in ways consistent with organizational strategy. Since behavior is a function of ability and motivation, when applied to training, the behavioral perspective suggests that training is major means used to encourage and reinforce the employee's motivation and behavior.

The second theoretical model is control theory in strategic human resource management (Snell, 1992) which focuses on three types of control systems: (1) behavior control, (2) output control, and (3) input control used simultaneously in the strategic context of firms. Accordingly, input control adjusts the antecedent conditions of performance - the knowledge, skills, abilities, values, and motives of employees; behavior control adjusts the transformation process; and output control regulates results. Therefore, effective performance depends on matching human resource practices with organizational context established by strategy. Applying the theoretical control to training suggests that training can be viewed as

an instrument that controls and adjusts input from firms such as knowledge, skills and abilities of employees. For example, when cause-effect knowledge is incomplete and standards of desirable performance are ambiguous, neither behavior control nor output control are likely to be a viable option for managers. In such cases, input control is a final option and training will result in positive organizational input (Ouchi, 1980).

Although the behavioral perspective and control theory has its roots in contingency perspective, they do not describe how a number of human resource practices are consistent with detailed different strategies in particular. Thus, given a specific strategy, we discuss the specific theoretical links among training, organizational strategy and firm performance. A summary of our research model is presented in figure 1.

First, we explore the relationship among human resource training, cost strategy, and performance. Since labor is one of the key independent variable of a production equation and reduction in employees continues to be a major aspect of strategies to restructure operations and reduce these costs (Uchitelle & Kleinfield, 1996), if a firm's approach to competition depends on cost strategy, they could control cost by decreasing the amount of human capital needed in the production process by machined systems. However, the option is suitable with firm if their production systems require lower skill levels and rarely decision-making capabilities of employees (Gomez-Mejia & Balkin, 1992). For example, a firm can use advanced technology to reduce costs through the elimination of employees, costs for HR practices (including training costs), wages, reducing product errors. When applied to training, according to Cascio (1991), in context organization is purposely designed to minimize the impact of people, the added expense of elaborate training systems would be saved and training costs might be minimal. Thus, we hypothesize

Hypothesis 1: Cost strategy moderates the relationship between training and firm performance.

Hypothesis 1a: a cost strategy will moderate the relationship between training and firm sales.

Hypothesis 1b: a cost strategy will moderate the relationship between training and firm productivity.

Second, we describe the relationship between human resource training, quality strategy, and performance. As companies respond to global competition, there is a growing recognition of the pivotal role of quality in competitive advantages, determining market success and enhancing organizational performance (Carmen et al., 1996; Powell, 1995; Shea & Howell, 1998; Waldman & Gopalakrishnan, 1996). Along this line, quality strategies focus on continually improving manufacturing processes to increase product reliability and customer satisfaction. In such strategic contexts, human capital plays an important role and is a central component of these quality strategies because skills and knowledge of employees could help them to understand statistical process control, diagnose and solve problems. Thus, the talents and capabilities of employees would be more likely to have an impact on performance if a firm's approach to competition follows these strategies.

According to the resource-based view of the firm, performance differences across firms can be attributed to the variance in the firms' resources and capabilities. Knowledge and skills has long been argued as a valuable, unique, and critical resource in most firms that enable these firms to conceive of and implement strategies that improve its efficiency and effectiveness (Barney, 1991; Pfeffer, 1994). More specifically, firm resources and strategy interact to produce positive organizational performance. However, more than firms' resources, knowledge and skills of employees are more likely to produce competitive advantages because they are often rare, socially complex, and to difficult to imitate. Thus, firms could improve product and services quality, customer satisfaction through their training

activities because knowledge and skills acquisition lie at the heart of a successful quality strategy. Accordingly, they suggest

Hypothesis 2: Quality strategy moderates the relationship between training and firm performance.

Hypothesis 2a: a quality strategy will moderate the relationship between training and firm sales.

Hypothesis 2b: a quality strategy will moderate the relationship between training and firm productivity.

Third, the relationship between human resource training, flexibility strategy, and performance will be considered. In face of competition, when more companies are achieving low-cost and high quality suppliers in market, flexibility is to be explored and firms are increasingly concentrating on flexibility as a way to obtain a competitive advantage (Upton, 1995). They believe that flexibility will help them not only to respond to needs and change quickly to customers on price, quality, and new products but also to compete with competitors in the market. However, there are many different meanings among firms on flexibility (Dean & Snell, 1995). In general terms, flexibility is the ability and capability to adapt or change in order to achieve high performance. For example, some companies pursue the flexibility strategy that enables them to decrease customer response time, increase product range, and develop new products effortlessly and at efficient costs (Boyer & Lewis, 2002; Koste & Malhotra, 1999). Other companies see flexibility as the major improved capabilities to achieve economies of scope and modular designs enhanced customer responsiveness or fit the demand of the market by facilitating faster product development and assembly (Robertson & Ulrich, 1998).

Technology pertains to the processes used in design, planning and production systems (Dean and Snell, 1991). A conventional wisdom has it that increased use of sophisticated

technologies such as advanced manufacturing technology or computer-integrated manufacturing leads to an increase in flexibility. However, some studies found that advanced manufacturing technology had neither a direct nor a moderated effect on flexibility (Boyer et al., 1997; Suarez et al., 1996; Zammuto & O'Connor, 1992; Jaikumar, 1986). The reason why organizations fail to achieve flexibility is not because they do not have the right technology but because they either fail to stress worker training or do not understand its importance (Fisher et al., 1994) and that might be the best way to increase flexibility is to invest in worker training in addition to technology and organizational systems (Gupta & Somers, 1996).

The above reasoning suggest that in contexts in which organizations purposely designed to pursue a flexibility strategy, managers must not only determine the type of workforce or technology they need for this strategy but also to combine the workforce and technology in order to achieve high performance because a firm's employee is one key to the puzzle of implementing new technologies (Meredith, 1987b). To successfully implement flexibility strategy, organizations must also provide and develop knowledge, skills and technologically competent for their employees that allow them to understand an entire production process as well as to know how to run the plant without errors and to get the job done (Parthasarthy & Sethi, 1992; Upton, 1995). Along this line, training plays an important role for building flexibility and these efforts would provide technical, problem-solving skills, and builds confidence people need to carry out their tasks. Therefore, the following hypothesis is offered:

Hypothesis 3: Flexibility strategy moderates the relationship between training and firm performance.

Hypothesis 3a: a flexibility strategy will moderate the relationship between training and firm sales.

Hypothesis 3b: a flexibility strategy will moderate the relationship between training and firm productivity.

In summary, the above argument in this section suggests that although firms could pursue one strategy or a multitude of organizational strategies simultaneously, each of organizational strategy orientations requires a different approach to training because the relationship between training and organizational-level performance might moderate or rely on the type of organizational strategy being pursued. If firms pursue cost strategy, training would not be a method for driving superior performance. On the other hand, if firms approach the competition by a quality and flexibility strategy, they must develop and maintain knowledge and skills of employees. Thus, training efforts would be advantageous and more likely to have an impact on performance. We used data from Vietnam Employer Survey 2007 to test the above hypothesis in the sections below.

Method

Sample and procedures

The study was conducted from several industries both manufacturing and non-manufacturing companies in Vietnam in July and August of 2007. We selected 1000 companies from the 2007 Telephone Directory of Vietnam. Then, we sent questionnaires to the manager in the sample firms. The questionnaire solicited information about the companies' strategy, training cost, and other firm characteristics for estimation. We receive a total 202 of companies' responses, representing a 20.2 percent response rate. However, 6 of the 202 of companies providing survey responses were eventually excluded because relevant firm-level data was not available. At the end, there were 196 companies used for the study. Becker and Huselid (1998) reviewed studies on high- performance work systems have

response rate ranging from 6 to 28 percent. Therefore, our response rate is consistent with reviewed results in the study of Becker and Huselid.

Measures

Firm performance: Research on organizational performance varies as a function of the outcome variables. We can categorize the variety of outcome variables into two groups: finance outcome (return on investment (ROI), return on assets (ROA), return on equity (ROE), return on sales (ROS), Tobin's q, sales, market share, productivity, etc.) and non-finance outcome variables (labor turnover, absence of employees, conflict, quality of product and/ or service, innovation, etc.). Although a number of studies have used non- finance outcomes to ascertain the effectiveness of human resource systems, we focused on productivity and sales because productivity and sales are a crucial organizational outcome, a large body of work in the strategy human resource management literature, and indicates the extent to which a firm's labor force is efficiently creating output (e.g., Huselid, 1995; Koch & McGrath, 1996; Guthrie, 2001; Delery & Shaw, 2001; Boselie & Dietz, 2003)

Training cost: Our research went beyond simply measuring the incidence of formal and informal training to examine the determinants of the types and costs of training in which employers invest, school, consultancy agencies and employer-provided training, who is receiving training. Training variable is measured by the training cost divided cost of goods and services used in the production of company sales, receipts, or shipments.

Organizational strategy: since we want to test the moderating influence of organizational strategies on the relationship between training and firm performance, of course, strategy is one of variables in the equation. According to the above analysis, we created a set of organizational strategies. Researchers have used a variety of approaches to measure strategy variables. We used direct questions to assess the extent to which a firm pursued one strategy of three strategies (cost, quality, and flexibility) or a multitude of strategies at the

same time because two reasons: (1) the lack of advance knowledge in theoretical framework with respect to organizational strategy of local managers, (2) some managers do not eagerly provide sensitive and detail data of their organizations.

Capital stock: In Cobb-Douglas production function, capital stock is one of the key variables and measure by book value of the company. In addition, according to previous studies (e.g., Huselid, 1995; Koch & McGrath, 1996), capital stock was included as a variable to controlled for any extraneous possible effects of capital. To measure organizational capital stock, we asked companies about the total book value of the fixed capital stock in their establishment (for example, structures, equipment, furniture, vehicles, and others) at the end of calendar year 2005 and 2006.

Firm size: Since firm size may be associated with the use of human resource training function as well as firm performance (Guthrie, 2001; Jackson & Schuler, 1995). More specifically, large organizations may be more likely than small ones to have well-developed training and higher productivity. Thus, firm size was another control variable. Size was measured as the natural logarithm of the number of employees (e.g., Huselid, 1995; Koch & McGrath, 1996; Datta et al., 2005). We obtained this data from the Vietnam Employer Survey 2007.

Results

We conducted hierarchical ordinary least squares regression analysis to test above hypotheses 1, 2, and 3. Table 1 and 2 show the results of hierarchical regression analyses. Model 1 represents the regression of the control variables included firm size, capital, and training cost. We added these variables first because we want to control for any extraneous effects across size, capital, or training cost. Model 2 adds organizational strategies to both sets of regressions. The set of organizational strategies were entered in order to control for any

effects strategies may have on firm performance. If the results of regression are significant, we can conclude that organizational strategies have direct effect on firm performance. To explore the moderating influence of organizational strategy on training- firm performance relationship, we created model 3 by adding a sets of cross variables of each of organizational strategies and training and entered the sets simultaneously in order to control for possible multicollinearity arising from the interaction terms being highly correlated with their constituent variables (Damodar, 1995).

As indicated in regression model 3, table 1, the interaction term comprised of training and organizational strategies had significant effects on sales in both manufacturing (ΔR^2= 0.02, F = 28.47, $p < 0.01$) and non-manufacturing firms (ΔR^2= 0.14, F = 7.21, $p < 0.01$). These results mean that organizational strategy in general moderate the training- firm sales relationship. In testing the specific moderation hypotheses 1a, 2 a, and 3a, the results in the interaction terms show that two of the interaction terms in the equation predicting sales were significant. More specifically, a quality strategy interacts with training to predict firm sales in manufacturing (b = .50, $p < 0.05$) and non-manufacturing firms (b = - 4.09, $p < 0.01$), supporting hypothesis 2a. Similarly, the significance of the interaction term involving flexibility strategy and firm sales in manufacturing (b = - 0.81, $p < 0.05$) and non-manufacturing firms (b = 2.96, $p < 0.05$) suggest that flexibility strategy moderates the relationship between training and firm sales. Thus, this result provides support for hypothesis 3a. We also found no significance for the moderating effect of cost strategy on the training-firm sales relationship and therefore this result provides no support for hypothesis 1a.

In addition to the above test hypotheses, other interesting results in model 2, table 1 include the positive significant effect that quality strategy and flexibility strategy variables have on firm sales of non-manufacturing companies. However, for manufacturing companies,

only flexibility strategy variable effects firm sales while there was no significant effect of quality strategy on firm sales.

Results in regression model 3, table 2 show that training - organizational strategies interaction terms were significant in firm productivity in both manufacturing (ΔR^2= 0.03, F = 16.59, p < 0.01) and non-manufacturing firms (ΔR^2= 0.24, F = 3.90, p < 0.01). These results suggest that organizational strategy does in fact moderate the training- firm productivity relationship.

To test the exact moderating influence of specific organizational strategies in hypotheses 1b, 2b, and 3b, we continue to explore the hierarchical regression results of training- organizational strategies interactions terms in table 2. We found that the interaction term of training and cost strategy had no significant in the regression model 3 in table 2, suggesting that cost strategy did not moderate the relationship between training and firm productivity. The analysis provides virtually no support for hypothesis 1b. Results in table 2 also show that the significance of the interaction term of quality strategy and firm productivity in both manufacturing (b = 0.50, p < 0.05) and non-manufacturing firms (b = - 4.09, p < 0.01), thereby hypothesis 2b is well supported by our data. Another regression result of the interaction term in table 2 indicates that the moderating influence of flexibility strategy on training- firm productivity relationship in manufacturing (b = -0.81, p < 0.05) and non-manufacturing firms (b = 2.96, p < 0.05). Thus, this result provides support for hypothesis 3b.

In addition, an analysis of the interaction term showed that company's approach to competition depends on flexibility strategy had higher productivity when using training. Results in table 2 also indicate that cost strategy, quality strategy, and flexibility strategy have a direct effect on firm productivity in manufacturing companies. However, only quality strategy and flexibility strategy have direct effects on firm productivity in non-manufacturing companies while cost strategy has no significant direct effect on firm productivity.

In summary, we found some empirical support for the moderating influence of organizational strategies on firm performance in general and quality strategy and flexibility strategy interacting with training to predict firm sales and productivity in specific. These findings suggest that the impact of training on firm performance is not only conditioned by an organization' strategic posture, but also show firm investment in training could be more beneficial for firms in some contexts than in others. More specifically, training-organizational strategy interactions could lead to higher firm performance. We also found that some strategies have direct impact on firm sales and productivity.

Discussion and Conclusion

Theoretical implications

The study examined contingency approaches to human resource training and firm performance. With respect to our principal hypothesis and controls for firm-level differences to investigate organizational strategy, we found strong empirical evidence that the relationship between training and firm performance was moderated by organizational strategy. These results demonstrate that the impact of training on firm performance may be further enhanced if training is matched with the organizational strategy posture (e.g., Cappelli & Singh, 1992; Wright, et al, 1995). More specifically, this study shows that quality strategy moderates the relationship between training and firm sales and productivity. The training programs which provide new knowledge, to enhance the skill and multiple communication efforts heighten employee awareness about company's quality objectives are especially important to firms trying to compete on quality. Our findings were also supported by parallel evidence from companies such as Cadillac plant, Xerox BP&S, IBM Rochester, Federal Express that have used comprehensive training programs as a crucial step to improve firm performance through total quality management (Blackburn & Rosen, 1993; Pfeffer, 1994).

Although the relationship between training and firm performance has been well developed in educational economic (Becker, 1962; Chapman, 1993), science of training (McGehee & Thayer 1961; Tannenbaum & Yukl 1992; Martocchio & Judge 1997), and total quality management literature (Crosby, 1979; Deming, 1982; Blackburn & Rosen, 1993), our results contribute to the rapidly developing human resource management literature. More specifically, organizational strategy is a major contingency factor affecting the human resource practices - performance link. This issue has been discussed in the strategic human resource management field. However, yet there is no strong theoretical rational for the choice of a contingency variable in previous studies (Tharenou, Saks & Moore, 2007) Thus, our study provides the much needed evidence that training activities designed to develop talent, skills, and increased employee problem solving improve firm sales and productivity when the training is matched with the firm's strategic posture. In addition, some previous studies which examined only the direct effects of training on firm performance might have underestimated results because of not taking into account strategy- training interaction.

Our study also shows that flexibility strategy moderates the relationship between training and firm sales and productivity. Since flexibility strategy is determined primarily by the talents and capabilities of employees (Upton, 1995), firms must provide training for their employees. The results of regression analysis provide support for this argument. In the organizational strategy literature, some research has already been done on aligning decisions in human resource management, industry matter, and productivity as well as human capital, research and development or technology policies, and performance (Ballot et al., 2001; Bracker & Cohen, 1992; Datta et al., 2005). Our finding fills a void by reinforcing some critical links and advance understanding this stream of research by establishing the impact of alignment between the work force training, organizational flexibility strategy, and firm performance. However, we failed to find a cost strategy moderate the relationship between

training and firm productivity and sales. One possible explanation for this non-finding is that labor costs are one of the higher costs effecting the production equation. Thus, in context in which firms have been control costs by diminishing the amount of human capital by substituting mechanized systems, the connection between training and firm performance might be minimal.

Managerial implications

This study highlights another way in which training interacting with organizational strategies can contribute to improve firm performance. In practice, our study has some following important implications for managers. First, recognizing the moderating roles of organizational strategy in connection between training and firm performance, our study provides an empirical evidence for human resource training decision making and implementation of the three organizational strategy orientations. For example, some companies would only provide general information training program for employees when they pursued cost strategy, whereas other firms that seek to increase levels of customer services, product quality or firm flexibility must provide and develop training programs for their employees because training increase skills and behavioral repertoires of employees in a way that can impact to efficiency and adaptability. Thus, managers need to identify and consider more carefully their strategies in order to provide training in a way that is effective and efficient because training doesn't come cheap although some companies view these expenditures not as costs but as investments.

Second, our study suggests that training, organizational strategies, and other firm characteristics appear to operate as an integrated system. However, managers have been offered rather simplistic structural systems in the past (Eisenhardt & Tabrizi, 1995). Therefore, employee training involvement, organizational strategy, firm sales and productivity should be designed using a contingency approach, rather than be assumed to be

universally appropriate. Strategy formulation must include careful assessment strengths and weaknesses about firm resources such as technology and equipment, human capital, or firm's formal reporting structure, not just customer expectations. Future managers need to provide a structural system that enables training to be woven into its fabric while allowing for the development and integration of new knowledge and skills to create customer value (Grant, 1996).

Third, this study also suggests that training has implications for a more active and important role in organizational strategy. More specifically, training can promote the development of employees with knowledge and skills necessary to implement a variety of different strategies and to respond a variety of demands. It requires firms to develop a participative mechanism that enables the firm to better monitor and respond to changes in the competitive environment. It is difficult for a firm to create the mechanisms. However, in fact when firms posses the mechanisms, they can gain competitive advantage (Barney, 1991). Therefore, managers need not only to match training with organizational strategies, but also consider this match as an imperfectly imitable intangible resource that leads to one way in which firms create a competitive advantage.

Limitations and suggestions for future research

Although our study provides interesting insights about the relationship between training, organizational strategy and firm performance, several limitations of this study should be emphasized and provide recommendations for future research. First, we used contingency perspective to examine the interactions between training and organizational strategies. The results found support for the contingency perspective. However, Doty & Glick (1994) suggests that configuration approach of training and strategies could represent nonlinear synergistic effects and higher order interactions that can not be represented with a contingency approach. More specifically, training will enhance organizational effectiveness

when it is used in conjunction with other human resource practices in order to maximize horizontal fit, and then link these human resource practices to organizational strategies to maximize vertical fit. Thus, we strong recommend that future research need to identify configurations of training and organizational strategies and test the interactions under configuration perspective.

Second, this study was limited to use a single moderator – organizational strategy of companies operating in Vietnam to test contingency hypothesis. However, several other organizational characteristics have effects on the relationship between training and firm performance, such as industry, technology, or company structure. Therefore, the interactions between training and other organizational characteristics might result in high performance. Future research needs to test moderating effects of other organizational characteristics on the training- performance link in order to show more insight into the relationship between training and firm performance. In addition, research future also needs to provide a theoretical rational for the choice of contingency variables before testing the contingency perspective.

Third, the concept of organizational strategy is sufficiently diverse that it is difficult to measure it. This is the reason why measures of organizational strategies in this study have tended to be general rather than specific. Thus, future research should provide a theoretical basis for the choice of a strategy measure and consider the organizational strategy constructs that are being measured. In addition, future research also needs to improve research results with more objective indicators of organizational strategy (Glick et al., 1990).

Finally, in this study, we measured only firm financial performance: sales and productivity. However, firm performance includes financial and non-financial indicators. Therefore, future researchers need to examine similar relationships by measuring both financial and non-financial indicators in order to gain generalization of findings. Future studies also need to be especially careful on measuring firm performance by subjective or

perceptual methods because they may not provide accuracy of results and comparable across firms over time.

Despite the limitations discussed above, this study provides several important contributions to both theoretical literature and practices. We found that organizational strategy moderates the relationship between training and firm performance. So rather than choose among perspectives, we encourage more future research in the relationship in order to gain a full understanding of how firms can provide training for their employees to enhance a firm's performance.

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Table 1: Results of Regression Analysis for Training, Organizational Strategy, and Firm Sales.

Variables	Model 1		Model 2		Model 3	
	Manufacturing	Non-manufacturing	Manufacturing	Non-manufacturing	Manufacturing	Non-manufacturing
	β	β	β	β	β	β
Firm size	0.38**	0.44**	0.37**	0.52*	0.41**	0.34
Capital	0.52**	0.37*	0.52**	-0.99**	0.48**	0.36**
Training	-1.01**	-0.74**	-0.99**	0.69*	-0.29	0.00
Cost strategy			0.69	0.01	0.80	-0.17
Quality strategy			0.01	0.68*	-0.20	1.16
Flexibility strategy			0.68*	-0.07*	0.61	-0.86
Training × Cost strategy					-1.3	-1.44
Training × Quality strategy					0.50*	-4.09**
Training × Flexibility strategy					-0.81*	2.96*
R^2	0.76	0.66	0.77	0.71	0.79	0.85
ΔR^2			0.01	0.05	0.02	0.14
F for ΔR^2	166.43**	24.17**	46.95**	6.49**	28.47**	7.21**

N = 196 for all models.

* $p < 0.05$

** $P < 0.01$

Table 2: Results of Regression Analysis for Training, Organizational Strategy, and Firm Productivity.

Variables	Model 1		Model 2		Model 3	
	Manufacturing	Non-manufacturing	Manufacturing	Non-manufacturing	Manufacturing	Non-manufacturing
	β	β	β	β	β	β
Firm size	-0.61**	-0.55*	-0.62**	-0.41	-0.59**	-0.65*
Capital	0.52**	0.37**	0.52**	0.30**	0.48**	0.36**
Training	-1.01**	-0.74**	-0.99**	-0.78*	-0.29	0.00
Cost strategy			0.67*	0.82	0.80	-0.17
Quality strategy			0.02*	0.35*	-0.20	1.16**
Flexibility strategy			0.69*	0.92*	0.61	-0.86
Training × Cost strategy					-1.35	-1.44
Training × Quality strategy					0.50*	-4.09**
Training × Flexibility strategy					-0.81*	2.96*
R^2	0.64	0.44	0.67	0.52	0.70	0.76
ΔR^2			0.03	0.08	0.03	0.24
F for ΔR^2	94.06**	9.84**	26.94**	2.91**	16.59**	3.90**

N = 196 for all models.

* $p < 0.05$

** $P < 0.01$

Figure 1: Training, organizational strategy, and firm performance