ASEAN Journal of Management & Innovation
Vol. 9. No.1, 62 - 74

DOI: 10.14456/ajmi.2022.6
ajmi.stamford.edu
Received: February 7, 2022
Revised: April 29, 2022
Accepted May 5, 2022

Strategic Human Resources Development Capability and Firm Performance: Empirical Evidence from the Information and Communication Technology Sector in Thailand

Suwan Wangcharoendate
Suwan.w@acc.msu.ac.th
Mahasarakham Business School, Mahasarakham University, Thailand

Abstract
This study focuses on strategic human resource development capability and firm performance in the context of the Thai information and communication technology (ICT) sector, which has been one of the main drivers of economic growth in the country. Specifically, it seeks to investigate the determinants of strategic human resource development capability and firm performance through the mediating effect of employee commitment awareness, valuable operational improvement, and business effectiveness with technology learning capability as a moderating variable on the relationship among strategic human resource development capability and consequence variables. A survey questionnaire was used to collect data. 389 managing directors or managing partners of Thai firms in the information and communication technology (ICT) industry were selected as key informants. An Ordinary Least Squares regression analysis was conducted to examine all the hypotheses. The results indicate that three dimensions of strategic human resource development capability (employee competency focus, strategic individual learning, and innovation creativity development) have a partial significant positive effect on employee commitment awareness, valuable operational improvement and business effectiveness. Moreover, employee commitment focus has a significant positive effect on valuable operational improvement and valuable operational improvement has a significant positive effect on business effectiveness. Similarly, all the consequence variables have a significant positive effect on firm performance. Suggestions and directions for future research are highlighted.

Keywords: Strategic Human Resource Development Capability, Firm Performance, Commitment Awareness, Employee Competency Focus, Technology Learning Capability.

1. Introduction

In today's dynamic and continuously changing business world, introducing new products or services and innovating business processes faster than competitors is likely to result in enhanced competitiveness (Schmitt & Klarmer, 2015). To achieve a sustainable competitive advantage, a business organization will generally find it necessary to deliver value – a strategy that differentiates it from its competitors and makes it difficult for its competitors to imitate (Bae & Patterson, 2014). Today though, the success of a business firm in brutally competitive markets depends less on advantages associated with economies of scale, technology, patents, and access to capital than on the speed of innovation and adaptability. In other words, the sources of competitive advantage are largely derived from human resources (Daveri & Parisi, 2015). Whereas technology, manufacturing processes, products, services, and the strategy of the firm can be copied easily, this is not the case with the intangible asset that human resources, which therefore represent a unique competitive advantage (Pfeffer,

2000). As the design and management of a human resource system, human resource management is based on employment policy and comprises a set of policies designed to maximize organizational integration, employee commitment, flexibility, and work quality (Alagaraja, 2012). This study focuses on strategic human resource management and firm performance in the context of the information and communication technology (ICT) sector in Thailand, which has been one of the main drivers of economic growth in the country (National Science and Technology Development Agency, 2019). The ICT industry has also been placing much emphasis on human resource development capability to respond to standard regulations and achieve its goals in an extremely competitive environment. Developing strategic human resource capability is necessary to provide training, appraise the effectiveness of the activities undertaken and ensure that they contribute to the achievement of the quality objectives, and maintain appropriate records in terms of education, training, skills, and experience (Neffke & Henning, 2013). Strategic human resource management can be defined as the pattern of planned human resource development and activities that are related to operational performance. It is the process of developing and unleashing expertise for the purpose of enhancing individual and teamwork and organizational performance (Jamshide & Moazemi, 2016). This process focuses on training and development, job enrichment, employee empowerment and productive organizational climate (Jain & Gulati, 2016).

In this research study, the successful implementation of strategic human resource development capability involves three dimensions: employee competency focus, strategic individual learning, and innovation creativity development (Price, Lee, & Kozman, 2010; Chaudhuri & Bartlett, 2014). Their impact can be measured in four ways: in terms of employee commitment awareness, valuable operational improvement, business effectiveness, and firm performance with technology learning capability acting as a moderator (Leede & Looise, 2005; Bae & Patterson, 2014). The main purpose of this study is therefore to examine the effects of each dimension of strategic human resource development capability on firm performance via employee commitment awareness, valuable operational improvement, and business effectiveness. Specifically, it seeks to address the following research questions:

- What are the effects of employee commitment awareness on valuable operational improvement?
- What are the effects of valuable operational improvement on business effectiveness?
- What are the effects of employee commitment awareness, valuable operational improvement, and business effectiveness on firm performance?
- How does technology learning capability moderate the relationships across each dimension of strategic human resource development capability and each of the consequences.

2. Literature Review and Hypothesis Development

The core concepts reviewed in this section include the three dimensions of human resource development capability (employee competency focus, strategic individual learning, and innovation creativity development) and the four ways in which its impact on it can be measured (employee commitment awareness, valuable operational improvement, business effectiveness, and firm performance). Strategic human resource development capability is discussed first.

- Strategic Human Resource Development Capability

In a nutshell, strategic human resource development capability refers to the process of modernizing employees' knowledge and upgrading their skill, attitudes, and perceptions in order to meet changing trends and attain organizational goals (Misanchuk, 1984). It is also

about the way employees are recruited, organized, developed, appraised, motivated, and retained (Oumlil & Juiz, 2016). It includes planned activities and processes designed to enhance organizational and individual learning and develop human potential. The result is that it maximizes organizational effectiveness and performance and helps bring about effective and beneficial changes within and beyond the boundaries of an organization (Zott, Amit, & Massa, 2011). Research indicates that strategic human resource development systems, processes, and practices are positively associated with operational performance such as, for instance, a reduction of employee turnover intention (Batt & Colvin, 2011), increments in productivity (Singh, 2011), higher safety performance (Huselid, 1995), greater organizational commitment, and better service performance (Nolan & Garavan, 2016). By facilitating the development of competencies and teamwork in an organization, they can contribute to gaining sustainable competitive advantage through (Jain & Gulati, 2016). The development of personal functions, however, does not necessarily keep pace with changes in the work environment (Juchnowicz, 2019). Therefore, the solutions applied may not be consistent with organizational aspirations for sustainable development.

- ***Employee Competency Focus***

Employee competency focus refers to the firm's human resource development planning and the related activities to identify and classify individuals and job-need-skills. A critical component is an individual's desire to undertake training for effective human resource development (Johannesson & Palona, 2010). It involves creating a working environment in which employees achieve their professional goals while implementing the company's strategy (Piwowar-Sulej, 2021). Fair remuneration adequately and comprehensive benefits reflecting employees' work engagement are also part of the equation. Ensuring fairness in the remuneration system is essential to attain greater employee commitment, operational development, business productivity, firm competitiveness, and firm success (Johannesson & Palona, 2010; Kinowska, 2020). Thus, the following hypotheses can be proposed:

> **H1a-1c:** *The higher employee competency focus, the more likely the firm will achieve greater (a) employee commitment awareness; (b) valuable operational improvement; and (c) business effectiveness.*

- ***Strategic Individual Learning***

Strategic individual learning can be defined as the encouragement of an organization in providing all possible resources to improve the skills of employees and give those prominent employees an opportunity to use these skills (Ifinedo, 2008). This includes a desire to develop the other abilities of employees. Employees who receive a great deal of specific training and have job security and growth opportunities have a lower rate of turnover, which in turn improves employee productivity, individual outcomes, and operational performance (Nolan & Garavan, 2016). The following hypotheses can therefore be formed:

> **H2a-2c:** *The higher strategic individual learning, the more likely the firm will achieve greater (a) employee commitment awareness; (b) valuable operational improvement; and (c) business effectiveness.*

- ***Innovation Creativity Development***

Broadly speaking, innovation creativity development refers to the enhanced ability of an organization in generating new information, knowledge and capitalizing on the experience of employees to improve operational processes within the organization (Eriksson, 2014). For a firm promoting innovation creativity development, this may also mean a deliberate and radical change in existing products and processes in order for the organization to achieve a competitive advantage over its competitors (Aggarwal & Singh, 2019; Tsai & Yen, 2020). Thus, three hypotheses can be developed as follows:

H3a-3c: *The higher innovation creativity development, the more likely the firm will achieve greater (a) employee commitment awareness; (b) valuable operational improvement; and (c) business effectiveness.*

- Employee Commitment Awareness

In this study, the following three variables have a mediating effect: employee commitment awareness, valuable operational improvement, and business effectiveness.

Employee commitment awareness refers to the conduct of organization's employee who behaves as a member is very proud of helping the organization achieve its objectives. It helps both the employee and the organization to improve their skills which, in turn, improves the productivity of the organization and that of employee (Patel, Terjesen, & Li, 2012). Employee commitment awareness increases the emphasis on general knowledge, skills, and abilities within an industry, and thus positively affects the competitive ability of the firm (Singh, 2011). Hence, the following hypotheses:

H 4: *A firm with greater level of employee commitment awareness will achieve better valuable operational improvement.*

H6*: A firm with greater level of employee commitment awareness will achieve better firm performance.*

- Valuable Operational Improvement

Valuable operational improvement can be defined as the use of structured processes and procedures that contribute to the continuous development of the activities of the firm and bring benefits to it (Yang, Lee, & Cheng, 2015). A better use of resources through such processes and procedures enables the organization to eliminate waste, reduce costs, adapt more appropriate technological innovation and therefore, perform better than competitors (Demeter, 2014). The following hypotheses can thus be proposed:

H5*: A firm with greater level of valuable operational improvement will achieve better business effectiveness.*

H7*: A firm with greater level of valuable operational improvement will achieve better firm performance.*

- Business Effectiveness

Business effectiveness refers to a firm's ability to achieve its goals and generate business growth that is superior to that of its competitors. Eccles, Ioannou, and Serafeim (2014) concluded that a business exhibiting an effective management of its stakeholder relationships can generate persistent superior financial performance over the longer-term. This study proposes the following hypothesis:

H8: *A firm with greater level of business effectiveness will achieve better firm performance.*

- Technology Learning Capability

The moderating effect of technology learning capability refers to a firm's ability to systematically develop the knowledge and skills of its personnel so that it operates effectively (Sutanto, 2017). Lin and Wu (2014) determined that a firm can develop innovative technology and improve its performance through learning from cooperative alliances. The following hypotheses can therefore be developed:

H9-11*: Technology learning capability will positively moderate the relationship between strategic human resource development capability and (a) employee commitment awareness, (b) valuable operational improvement, and (c) business effectiveness.*

- Control Variables

Two control variables are included to account for firm characteristics that may influence the hypothesized relationships: firm size and ownership. Firm size refers to the number of workers in an organization. It is representative of business size and is widely used in the literature on management and organization (e.g. Bello-Pintodo, 2015). Therefore, firm size is a dummy variable in which 0 means that the firm has a number of workers less than or equal to 300 and 1 that the firm has more than 300 workers. Ownership is a substantial variation in the way human resources are managed among different ownership types and regions (Ding, Akhtar & Ge, 2006). Organizational culture and economic conditions play an important role in determining an organization's human resource strategy and practice (Brand & Croonen, 2010).

Accordingly, ownership is a dummy variable in which 0 means that the firm is a single unit and 1 that the firm is a franchised unit.

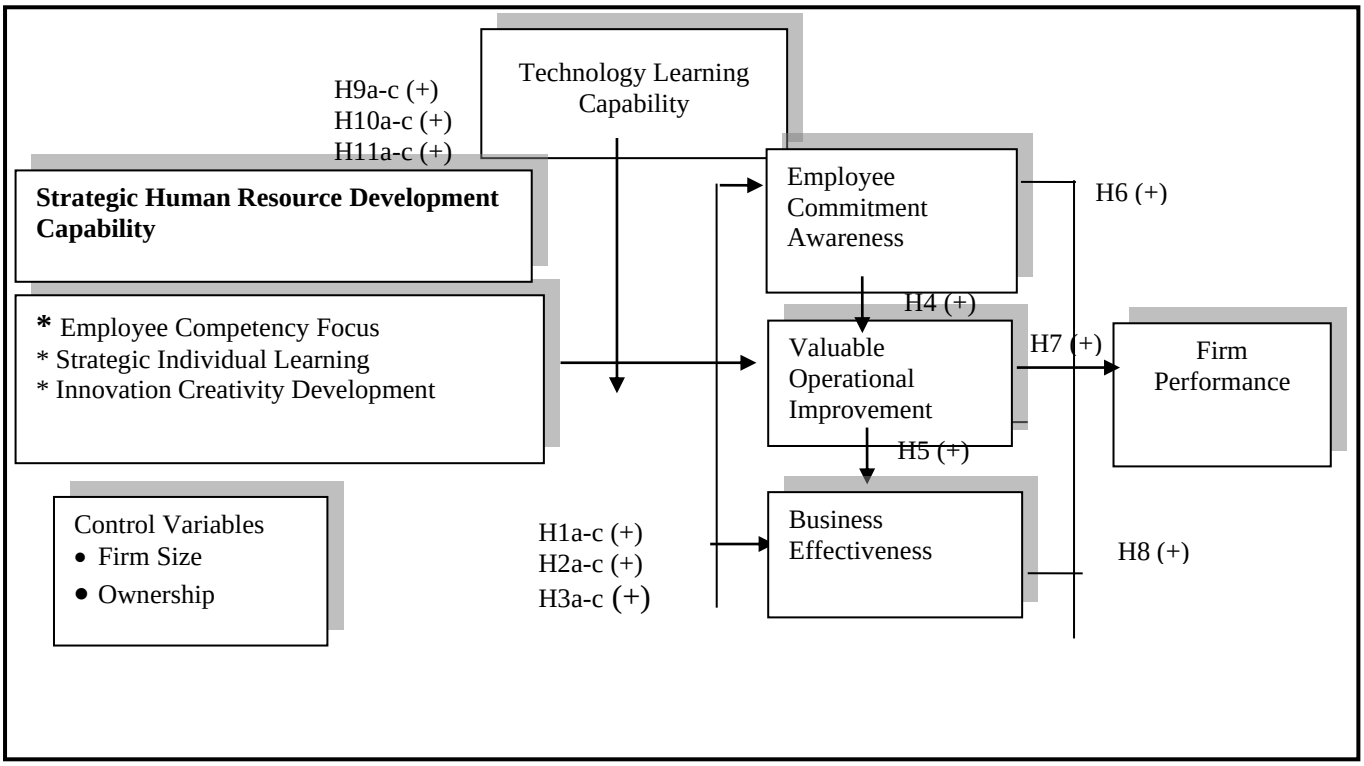

Figure 1: Conceptual Model (created by author for this study)

3. Research Methodology

This quantitative research study used a survey questionnaire to collect information. Participants were the managing directors, managing partners, or managers of the ICT firms selected.

- Sample Size

A list of 18,470 Thai ICT firms was first obtained on the online database of the Thai Department of Business Development (2021). It was then calculated that to be representative the sample size in this research needed to include at least 376 of these firms, which would represent the minimum usable sample size with 95 percent confidentiality (Krejcie & Morgan, 1970). Since the effective response rate for a mail-out survey, without an appropriate follow-up procedure, should be more than 20 percent, a range considered

acceptable for data analysis (Aaker, Kumar, & Day, 2001), the sample size in this research was calculated to be 1,880 [(376x100)/20]. As a result, a stratified random sampling of 1,880 firms listed on the online database of the Department of Business Development was selected. To come up with a sample in each stratum, proportionate stratification, based on the stratum's share of the total population, was applied. The target sample was obtained using systematic random procedures to draw the population from each stratum. There were seven stratums in total: Bangkok 1,137 firms; the north, 148; the northeast, 182; Central Thailand, 283; the east, 72; the west, 32; and the south, 26.

720 surveys were found to be undeliverable, which brought the total number of surveys delivered down to 1,160 (1,880 – 720). A total of 650 responses was received. However, 261 of them turned out to be incomplete surveys and were discarded, which means that only 389 questionnaires were usable for analysis. The response rate was 33.53 percent. According to Aaker et al., (2001), a response rate of 20 percent or more to a questionnaire mailing survey is acceptable.

- *Questionnaire Development*

The questionnaire consisted of six parts. Part 1 asked for personal information. Part 2 was about information on the organizational characteristic. Part 3 evaluated each of the constructs in the conceptual model. The questions in Part 4 measured the consequences of strategic human resource development capability and firm performance. Part 5 detailed the moderator variable. Part 6 consisted of an open-ended question. All the variables, except for the control variables, were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). To examine the appropriateness of the questionnaire, this research used validity and reliability tests. First, the questionnaire was double-checked by an experienced expert scholar. Second, a pre-test was conducted to check its rational and ensure its clear and accurate understanding.

- *Reliability and Validity*

Factor analysis was implemented to assess the underlying relationships of a large number of items and determine whether they could be reduced to a smaller set of factors. The factor analysis conducted was done separately on each set of items representing a particular scale due to limited observations. With respect to the confirmatory factor analysis, this analysis had a high potential to inflate the component loadings. Therefore, a cut-off value of 0.40, was adopted as a rule-of-thumb as recommended by Hair et al. (2010). Since all factor loadings were greater than the 0.40 cut-off, they were statistically significant. The reliability of the measurements was also evaluated using Cronbach alpha coefficients. As Table 1 shows, in regard of the scale reliability, Cronbach alpha coefficients are greater than 0.70. This scale appears to produce internally consistent results. Thus, these measures were deemed appropriate for further analysis as they reflected generally accepted validity and reliability.

Table 1: Results of Measure Validation

Variables	**Factor Loadings**	**Cronbach's Alpha**
Employee Competency Focus (ECF)	.827 - .836	.842
Strategic Individual Learning (SIL)	.746 - .763	.838
Innovation Creativity Development (ICD)	.724 - .731	.728
Employee Commitment Awareness (ECA)	.827 - .849	.835
Valuable Operational Improvement (VOI)	.728 - .754	.754
Business Effectiveness (BE)	.720 - .754	.736
Technology Learning Capability (TLC)	.712 - .723	.718

- *Statistical Analysis*

The Ordinary Least Squares (OLS) regression analysis was used to test and examine the hypotheses articulated in the conceptual model. Since none of the variables were either nominal data or categorical data, OLS was an appropriate method for examining the hypothesis relationships. The equation models are as follows:

Equation 1: $ECA = \alpha_1 + \beta_1 ECF + \beta_2 SIL + \beta_3 ICD + \beta_4 (ECF*TLC) + \beta_5 (SIL*TLC) + \beta_6 (ICD*TLC) + \beta_7 FS + \beta_8 OS + \varepsilon$

Equation 2: $VOI = \alpha_2 + \beta_9 ECF + \beta_{10} SIL + \beta_{11} ICD + \beta_{12} (ECF*TLC) + \beta_{13} (SIL*TLC) + \beta_{14} (ICD*TLC) + \beta_{15} FS + \beta_{16} OS + \varepsilon$

Equation 3: $BE = \alpha_3 + \beta_{17} ECF + \beta_{18} SIL + \beta_{19} ICD + \beta_{20} (ECF*TLC) + \beta_{21} (SIL*TLC) + \beta_{22} (ICD*TLC) + \beta_{23} FS + \beta_{24} OS + \varepsilon$

Equation 4: $VOI = \alpha_4 + \beta_{25} ECA + \beta_{26} FS + \beta_{27} OS + \varepsilon$

Equation 5: $BE = \alpha_5 + \beta_{28} VOI + \beta_{29} FS + \beta_{30} OS + \varepsilon$

Equation 6: $FP = \alpha_6 + \beta_{31} ECA + \beta_{32} VOI + \beta_{33} BE + \beta_{34} FS + \beta_{35} OS + \varepsilon$

4. Results and Discussion

The survey questionnaire indicates that 62.3 percent of the 389 valid respondents are males. 58.72 percent of those respondents are over 40 years old and 75.40 percent of them are married. 67.9O percent of them have diplomas above undergraduate level and 72.19 percent of them have more than 15 years of work experience. The average monthly income of 46.28 percent of them is below 100,000 bath (US$2,900) and 52.85 percent of them work as managing directors. Data in the 389 valid responses also indicate that 75.30 percent of the companies are registered as limited liability companies (LLC). 92.61 percent of them are wholly owned by Thai. In addition, 75.25 percent of these firms have less than 25,000,000 baht (US$700,000) in operational capital. Approximately 79.56 percent of them have been in business form more than 15 years. More than half of them have between 10-15 full-time employees (51.36%).

A bivariate correlation analysis of Pearson's correlation was conducted to explore the relationships among the variables and detect multicollinearity in multiple regression assumptions. Multicollinearity might occur when inter-correlation in each predict variable is more than 0.80, which is a high relationship (Hair et al., 2010) In this study, the bivariat correlation procedure was scaled to a two-tailed test of statistical significance at $p<0.01$ and $p<0.05$. Variance inflation factors (VIF) were used to provide information on the extent to which non-orthogonality among independent variables inflates standards errors. The VIFs, which range from 2.516-3.349, are well below the cut-off value of 10, which means that the independent variables are not correlated with each other (Hair et al., 2010). Therefore, as Table 2 shows, this study encountered no substantial multicollinearity problems.

Table 2: Descriptive Statistics and Correlation Matrix

Variables	ECF	SIL	ICD	ECA	VOI	BE	TLC
Mean	4.218	4.128	4.019	4.051	4.259	4.214	4.117
SD	.415	.427	.442	.413	.428	.418	.417
ECF	1						
SIL	.651**	1					
ICD	.466**	.643**	1				
ECA	.488**	.581***	.638**	1			
VOI	.424**	.619**	.541**	.646***	1		
BE	.570**	.481**	.465**	.518**	.523**	1	
TLC	.477**	.543**	.525**	.538**	.493**	.423**	1

*** Correlation is significant at the 0.01 level (2-tailed), ** Correlation is significant at the 0.05 level (2-tailed)

Table 3 presents the results of the OLS regression analysis that affects the three dimensions of strategic human resource development capability on employee commitment awareness, valuable operational improvement, and business effectiveness. The hypotheses predicted positive relationships.

Table 3: Results of OLS Regression Analysis

Independent Variables	Dependent Variables			
	Equation 6: Firm Performance	Equation 1: Employee Commitment Awareness	Equation 2: Valuable Operational Improvement	Equation 3: Business Effectiveness
Employee Competency Focus (ECF)		.249** (.079)	.223** (.083)	.251** (.085)
Strategic Individual Learning (SIL)		.236** (.089)	.230** (.089)	.262** (.093)
Innovation Creativity Development (ICD)		.029 (.085)	.032 (.088)	.024 (.091)
Technology Learning Capability (TLC)		.172* (.080)	.027 (.090)	.037 (.093)
ECF x TLC		.041 (.071)	.027 (.060)	.152* (.077)
SIL x TLC		.038 (.083)	.132* (.093)	.032 (.077)
ICD x TLC		-.024 (.067)	-.016 (.033)	-.072 (.081)
Employee Commitment Awareness (ECA)	.198** (.092)			
Equation:4 Valuable Operational Improvement (VOI)	.207** (.090)	.267** (.080)		.240** (.070)
Equation:5 Business Effectiveness (BE)	.233** (.087)			
Firm Size (FS)	0.05 (.093)	0.12 (.106)	0.17 (.123)	.080 (.106)
Ownership (OS)	.100 (.094)	-0.11 (.016)	-0.172 (.012)	-0.151 (.106)
Adjusted R square	.301	.369	.384	.432
Maximum VIF	2.561	3.349	3.349	3.349

**p< .05, *p < .10 [a] Beta coefficients with standard errors in parenthesis.

As can be seen in Table 3, employee competency focus has a significant positive impact on employee commitment awareness (β_1= 0.249, p <0.05), strategic individual learning (β_9= 0.223, p <0.05), and business effectiveness (β_{17}= 0.251, p <0.05). Hypotheses 1a-1c were supported. This result is consistent with prior studies and confirms that competency focus can help a firm enhance its capabilities and as such is an important source for organizational performance in terms of employee development (Ifinedo, 2008; Price et al., 2010; Sutanto, 2017). Furthermore, strategic individual learning has a significant positive impact on employee commitment awareness (β_2= 0.236, p <0.05), valuable operational improvement (β_{10}= 0.230, p <0.05), and business effectiveness (β_{18}= 0.262, p <0.05). Hypotheses 2a-2c were supported Adding value to the capabilities of employees contributes to their commitment to the firm as they expect that their investment in training will raise the capability of the organization's collective skills and improve their productivity and that of the

organization as a whole (Alhogail, 2015; Jain & Gulati, 2016). Consequently, innovation creativity development shows no significant influence on employee commitment awareness (β_3= 0.029, p >0.05), valuable operational improvement (β_{11}= 0.032, p >0.05), and business effectiveness (β_{19}= 0.024, p >0.05). Prior research indicates that while innovation may be of great economic value, the most sustainable value lies in the abilities of businesses to generate improvements and innovations in the future (Daveri & Parisi, 2015). Innovating in products and services presupposes sharing knowledge in order to create something new (not necessarily something new to the world). Moreover, innovations tend to be more sustainable if professional further develop these new abilities into resources for further action (Lin & Wu, 2014). Thus, hypotheses 3a-3c were not supported.

The results also indicate that employee commitment awareness has a significant positive impact on valuable operational improvement (β_{25} = 0.267, p< 0.05), and firm performance (β_{31}= 0.198, p< 0.05). Employee commitment awareness refers to employees' dedication working for the organization and striving to achieve its objectives. As determined by Jain and Gulati (2016), operational outcome in term of employee commitment awareness leads to greater organizational outcome in terms of productivity. Hypotheses 4 and 6 were thus supported. In addition, the findings show that valuable operational improvement has a positive significant influence on business effectiveness (β_{28}= 0.240, p< 0.05) and firm performance (β_{32}= 0.207, p< 0.05). This finding is consistent with Yang et al. (2015) who concluded that operational improvement is related to problem-solving skills, actions for enhancing performance, and reliable methods. It also displays the common characteristics of other capabilities such as knowledge and skills. Moreover, valuable operational improvement is related to change in productivity and profit. It also has an impact on short and long-term firm competitiveness and performance (Schmitt & Klarmer, 2015). Therefore, hypotheses 5 and 7 were supported.

Nevertheless, the findings show that business effectiveness has a positive significant influence on firm performance (β_{32}= 0.233, p< 0.05). The firm is able to improve business effectiveness by increasing the amount of output into input in a proportion that is likely to make it attain its objectives and goals. Ways of improving the efficiency of operations includes reducing material, labor, energy, and time in the working process while maintaining constant output or increasing output while maintaining constant input (Oumlil & Juiz, 2016). Therefore, hypothesis 8 was supported. As can also be seen in Table 3, technology learning capability has a moderating effect on the relationships between strategic human resource development capability and its consequences. The results indicate that the interaction between technology learning capability and employee competency focus has a positive significant effect on business effectiveness (β_{20}= 0.152, p< 0.10). This means that hypothesis 9c was supported. Technology learning capability plays an important role enhancing organizational quality decision and strategic implementation and can force human resource accounting transfer capability.

The interaction between technology learning capability and strategic individual learning has a positive significant effect on valuable operational improvement (β_{13}= 0.132, p< 0.10). Hypothesis 10b was thus supported. This is in line with Sutanto's (2017) study in which it was found that, as a competency, firm's learning capability impacts product innovativeness and improves performance. The greater the technology learning capability effect, the greater organization innovation and operation improvement. Accordingly, the interaction between technology learning capability and innovation creativity development has a negative and insignificant effect on employee commitment awareness (β_6=-.024, p> 0.05), valuable operational improvement (β_{14}= -.016, p> 0.05), and business effectiveness (β_{22}= -.072, p>

0.05), which means that hypotheses 11a-11c were not supported. Factors that influence technology learning capability include individual motivation to learn, team dynamics and organizational culture practices. They all have a significant effect on technology learning capability (Price et al., 2010). Given the variety of strategies for operating successfully, there may be fatigue in learning about them.

Additionally, the results regarding the two control variables indicate that firm size does not have a significant effect on employee commitment awareness, valuable operational improvement, business effectiveness and firm performance. That said, a larger firm might have more resources than a smaller firm, which might moderate the relationship between human resource development and firm performance (Radvila & Šilingienė, 2020). Firm size, however, has been found to affect a firm's image and reputation as well as its ability to implement marketing strategy (Oumlil & Juiz, 2016). Moreover, ownership does not have a significant effect on employee commitment awareness, valuable operational improvement, business effectiveness and firm performance. The ownership of a manufacturing firm is significant in that company-owned units have a higher human resource management intensity than franchised units. Yet, according to Brand and Croonen (2010), franchised units have a higher human resource performance than company-owned-units.

Human resource directors and managers should enhance sharing and utilizing the knowledge and experience of their employees to create new working processes that generate business competitive advantages. Firms should encourage employees' creative thinking in new ways of operating and allocate a robust budget to create, research, and develop new products and processes, which will help them attain excellence. A culture of innovation and strong financial backing are also likely to increase employee commitment, operational development, and business productivity, and therefore a firm's competitiveness as a sign the firm means business. Firms should never lose track of the fact that that its human capital is a valuable resource that needs clear motivation and guidelines. Companies should therefore have systematic and concrete human resource planning and management so as to make the most of its workforce. Moreover, an open working environment will help businesses have their operations be in line with the development of their human resource capability and achieve sustainable competitive advantage.

5. Conclusion

This study investigated the influence of three dimensions of strategic human resource development capability (employee competency focus, strategic individual learning, and innovation creativity development) on firm performance as mediated by employee commitment awareness, valuable operational improvement, and business effectiveness with technology learning capability as a moderator. The instrument used was a questionnaire. The sample selection consisted of managing directors and managing partners in the Thai ICT industry. A total 389 samples were collected. The results indicate that employee competency focus, strategic individual learning, and innovation creativity development have a partial significant positive effect on employee commitment awareness, valuable operational improvement, and business effectiveness. Moreover, all the consequences have a significant positive effect on firm performance. Employee commitment awareness has a significant positive effect on valuable operational improvement, which has a significant positive effect on business effectiveness. Technology learning capability operates as a partial moderator on the relationships between employee competency focus and strategic individual learning on business effectiveness and valuable operational improvement.

Finally, human resource development capability and each of its dimensions are essential internal factors for promoting employee training and development activities. This study contributes to the practice of managing directors and managing partners in the field of strategic human resource development capability. There are limitations to this study. Firstly, the measurements of all the constructs in this research are newly developed with some modifications based on the literature reviewed and related theories. Secondly, the measurements are developed using content validation by business experts. Thus, the findings may not be able to fully explain the whole population. Moreover, while the relatively small sample size warranted to test assumption by linear regression, this may affect the hypothesis testing. Future research may employ other sampling populations with differentiation in types and characteristics in order to compare the results and outcomes. Moreover, other research methods could be used.

References

Aaker, D. A., Kumar, V., & Day, T. X. (2001). *Marketing research*. New York: John Wiley and Sons.

Alagaraja, M. (2012). HRD and HRM perspectives on organizational performance: A Review of literature. *Human Resource Development Review*, *12*(2), 117-143.

Aggarwal, P., & Singh, A. K. (2019). CSR and sustainability reporting practices in India: An in-depth content analysis of top-listed companies. *Social Responsibility Journal*, *15(*8), 1033-1053.

Alhogail, A. (2015). Design and validation of information security culture framework. *Computers in Human Behavior*, *49*(1), 567-575.

Bae, S. O., & Patterson, L. (2014). Comparison and implications of human capital theory at the individual, organization, and country levels. *Journal of Organizational Culture, Communication and Conflict*, *18*(1), 1-286.

Batt, R., & Colvin, A. J. (2011). An employment systems approach to turnover: Human resources practices, quits, dismissals, and performance. *Academy of Management Journal*, *54*(4), 695-717.

Bello-Pintado, A. (2015). Bundles of HRM practices and performance: Empirical evidence from a Latin American context. *Human Resource Management Journal*, *25*(3), 311-330.

Brand, M. J., & Croonen, E. P. (2010). Franchised and small, the most beautiful of all: HRM and performance in plural systems. *Journal of Small Business Management*, *48*(4), 605-626.

Chaudhuri, S., & Bartlett, K. R. (2014). The relationship between training outsourcing and employee commitment to organization. *Human Resource Development International*, *17*(2), 145-163.

Daveri, F., & Parisi, M. L. (2015). Experience, innovation, and productivity: Empirical evidence from Italy's slowdown. *Industrial and Labor Relations Review*, *68*(4), 889-915.

Demeter, K. (2014). Operating internationally: The impact on operational performance improvement. *International Journal of Production Economics*, *149*(C) 172-182.

Department of Business Development in Thailand (www.dbd.go.th, accessed on March 21, 2021).

Ding, D. Z., Akhtar, S., & Ge, G. L. (2006). Organizational differences in managerial compensation and benefits in Chinese firms. *The International Journal of Human Resource Management, 17*(4), 693-715.

Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science, 60*(11), 2835-2857.

Eriksson, T. (2014). Processes, antecedents, and outcomes of dynamic capabilities. *Scandinavian Journal of Management, 30*(1), 65-82.

Hair, Jr. J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis*. New York: Macmillan.

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.

Ifinedo, P. (2008). Impacts of business vision, top management support, and external expertise on ERP success. *Business Process Management Journal, 14*(4), 551-568.

Jain, R., & Gulati, S. (2016). HRD systems and organizational performance: Qualitative review of research. *Journal of Institute of Public Enterprise, 39*(1), 86-109.

Jamshide, H., & Moazemi, M. (2016). The impact of external environment on export performance. *Journal of Business & Financial Affairs, 5*(4), 1-6.

Johannesson, J., & Palona, I. (2010). The dynamics of strategic capability. *International Business Research, 3*(1), 3-12.

Juchnowicz, M. (2019). Zwinne organizacje wyzwaniem dla zarządzania kapitałem ludzkim (Agile organisations: A challenge for human capital management). *Zarządzanie Zasobami Ludzkimi (Human Resource Management), 2*(127), 43–55.

Kennett, G. (2013). The impact of training practices on individual, organization, and industry skill development. *Australian Bulletin of Labour*, 39(1), 112-135.

Kinowska, H. (2020). The perception of fair remuneration as a component of sustainable development. *Education of Economists and Managers, 56*(2), 77-86.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample remuneration as a component of sustainable development. *Educational and Psychological Measurement, 30*(3), 607-610.

Leede, J. D., & Looise, J. K. (2005). Innovation and HRM: Towards an integrated framework. *Creativity and Innovation Management, 14*(2), 108-117.

Lin, Y., & Wu, L. Y. (2014). Exploring the role of dynamic capabilities in firm performance under the resource-based view framework. *Journal of Business Research, 67*(3), 407-413.

Misanchuk, E. R. (1984). Analysis of multi-component educational and training needs. *Journal of Instructional Development, 7*(1), 28-33.

Mitsakis, F. V. (2020). Human resource development (HRD) resilience: A new 'success element' of organizational resilience? *Human Resource Development International, 23*(3), 321-328.

National Science and Technology Development Agency (2019). *Automotive and auto parts industry of Thailand*. Retrieved January 10, 2022, from: http://www.technology .in.th/industrial-data/doku.php?id=automotive-industry: newstart-status.

Neffke, F., & Henning, M. (2013). Skill relatedness and firm diversification. *Strategic Management Journal, 34*(3), 297-316.

Nolan, C. T., & Garavan, T. N. (2016). Human resource development in SMEs: A systematic review of the literature. *International Journal of Management Reviews, 18*(1), 85-107.

Oumlil, R., & Juiz, C. (2016). An up-to-date survey in barriers to open innovation. *Journal of Technology Management & Innovation, 11*(3), 137-152.

Patel, P. C., Terjesen, S., & Li, D. (2012). Enhancing effects of manufacturing flexibility through operational absorptive capacity and operational ambidexterity. *Journal of Operations Management, 30*(3), 201-220.

Pfeffer, J. (2000). The human equation: Building profits by putting people first. *Human Resource Management Journal, 10*(2), 91-96.

Piwowar-Sulej, K. (2021). Human resources development as an element of sustainable HRM – with a focus on production engineers. *Journal of Cleaner Production, 278*(1), 1-14.

Price, R., Lee, J., & Kozman, T. (2010). Use of competency-based needs analysis in developing employee training program. *International Journal of Business and Public Administration 7*(1), 117-131.

Radvila, G., & Šilingienė, V. (2020). Designing remuneration systems of organizations for sustainable HRM: The core characteristics of an emerging field. *International Journal of Human Resource Studies, 10*(2), 252-279.

Schmitt, A., & Klarmer, P. (2015). From snapshot to continuity: A dynamic model of organizational adaptation to environmental changes. *Scandinavian Journal of Management, 31*(1), 3-13.

Singh, K. (2011). HRD practices & managerial effectiveness: Role of organization culture. *Indian Journal of Industrial Relations, 47*(1), 138-148.

Sutanto, E. M. (2017). The influence of organizational learning capability and organizational creativity on organizational innovation of universities in East Java, Indonesia. *Asia Pacific Management Review, 22*(3), 128-135.

Tsai, C. F., & Yen, Y. F. (2020). Moderating effect of employee perception of responsible downsizing on job satisfaction and innovation commitment. *The International Journal of Human Resource Management, 31*(15), 1913-1937.

Yang, Y., Lee, P. K., & Cheng, T. C. E. (2015). Operational improvement competence and service recovery performance: The moderating effects of role stress and job resources. *International Journal of Production Economics, 164*(C), 134-145.

Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. *Journal of Management, 37*(4), 1019-1042.