The Moderating Effects of Competitive Forces on the Relationship between Human Resource Efficiency and Human Resource Voluntary Disclosure

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Abstract

The purposes of this research are to investigate the relationship between human resource efficiency and human resource voluntary disclosure and to examine the moderating effects of competitive forces on the relationship. Human resource efficiency consists of human efficiency in profitability, productivity and market value. The sample size is 90 firm-years in technology industry group listed on the Stock Exchange of Thailand. The results of ordinary least squares (OLS) revealed that human resource efficiency in market value was positively related to human resource voluntary disclosure but competitive forces effects were weakened. In addition, competitive force effects on the relationship between human resource efficiency in productivity and voluntary disclosure were weakened. Nevertheless, competitive forces on relationship between human efficiency in profitability and voluntary disclosure were strengthened.

Keywords: Human resource efficiency, Voluntary disclosure, Competitive forces

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Introduction

In the new economy era, a number of companies have increased the competence of human and internal capabilities which are the keys of sustainable competitive advantages. (Huselid, 1995)Human resource is key driver of success and the various HR activities that the organization carries out must be aligned with the organization's business strategy in order to have an effective impact on performance. Previous studies proved that distinctive human resource practices helped to create unique competencies and to drive competitiveness.(Pehrson, 2001; Cappelli, and Singh, 1992) The human resource information is useful for investor decisions but in accounting practice, human resource is not recognized to be an asset. Most of the firms usually disclose human resource information only in terms of their expenses and activities.

Corporate disclosures are mandatory and voluntary. The voluntary disclosure attempts the managers to report information. The managers of the business are motivated to disclose such information to the market value of the business. Prior studies found no consistent relationship between corporate performance and voluntary disclosure while some other studies did due to the competitive environment. In this study, the authors focus on the competitive environment as moderate variable because the firms are the market leaders and they want to maintain their positions in the market. They use defensive strategies such as not allowing competitors to imitate their activities. As a result, firms have reduced voluntary disclosure.

This study focuses on human resource performance namely human resource efficiency. Moreover, the study of the relationship between the performance and the disclosure level found no relationship because of the environment of enterprises of different businesses such as competition forces. The competitive forces could affect the disclosure level of the firm's performance. The purpose of this study is to investigate the relationship between the human resource efficiency and the human resource voluntary disclosure and to examine the moderating effects of competitive forces on the relationship.

Theoretical background and hypotheses

1. Voluntary disclosures theory

The objective of the voluntary disclosure is to define management's optimal decision of the firms' performance and the profitability reporting if not required by law. If the managers disclose their firm information, the investors will believe that the firms have good performance. In contrast, if the information is not being disclosed, they tend to think that the firms are facing a bad situation or poor performance. (Rahman, 2012)

Information about the human resource is a key for investors to evaluate the firm's opportunities and with a variety of items that the managers will inform the investors and which also can influence the stakeholders' decision. This study assumes that the firms will disclose the human resource information more voluntarily only when they have good human resource efficiency.(Fields, 2001; Watts and Zimmerman, 1978)

2. Signaling theory

Signaling theory is useful for describing behavior of two parties accessing different information. In research of Ross, this theory was used to explain about the voluntary disclosure in the situation that the managers had more information and more decision making power than stakeholders on the firms' economic conditions. The voluntary disclosure is one of the signaling means, where companies would disclose more information than the mandatory ones if required by laws and regulations in order to signal that they are better. (Campbell et al, 2001)

According to Boudreau, it was asserted (Boudreau, 1991) that the human resources was a valuable resource of each organization and the better human resource management led to a positive influence on the long-term financial performance of the firms. Then, a good performance firm sending a certain signal to the investors showed that they were better than other companies in the market for the purposes of attracting investments and enhancing a favorable reputation.

3. Development of hypotheses

The study on the relationship between performance and disclosure is still unclear because Wallace and Mora did not find any association, but Naser, Al-Kharib, Karbhari found a positive association of them while Chen and Jaggi B, found negative. The study of Clarkson in the context of environmental showed that performance had a positive relationship with disclosure.

Moreover, the previous studies also used the human resource disclosure to be a proxy of corporate performance , but in this study, the authors chose the effectiveness of human resource management because better human resource management can lead to the positive influence on the long-term financial performance of the firms. The authors evaluated the human resource management on the human resource efficiency by linking to corporate productivity, profitability and market value. Thus, the firms with the good human resource management will disclose information about human resource more than other firms for signaling to investors. Such that, our hypothesis is as follows:

H1: There is a positive relation between human resource efficiency: (a) productivity (b) profitability (c) market value and human resource voluntary disclosure.

Prior studies showed a positive and negative relationship between performance and voluntary disclosure. Some scholars argued that the relationship between performance and voluntary disclosure may be contingent upon the competitive environment in which the firms operate.

Competitive forces are elements from the outside of the company that threaten the company's standing in the marketplace. Concept of competitive forces by Porter identified five forces that play a part in shaping every market and industry in the world. The followings are the competition in the industry: potential of new entrants into the industry, power of suppliers, power of customers and threat of substitute products. The forces are frequently used to measure competition intensity, attractiveness and profitability of the industry or the market. The assessment of the business's competitive position in the market as a leader, challenger or the follow should be implemented.

The human resource information is not voluntary disclosed because it is the key sustainable competitive advantage. When being a leader, the firms use defense strategies to prevent the imitation of their job. As a result, the firms have reduced the voluntary disclosure. Thus, the competitive forces make the relationship between the human resource efficiency and the human resource voluntary weaken. Such that, our hypothesis is as follows:

H2: The competitive forces negatively weaken the effects of the relationship between the human resource efficiency: (a) productivity (b) profitability (c) market value and the human resource voluntary disclosure.

Method

1. Sample selection

The samples, which were selected from the listed companies in technology industry group in Stock Exchange of Thailand from 2014 to 2016, excepted firms with incomplete information and extreme values, containing 90 firm-year observations. The disclosure level of information was collected from annual reports form 56-1 and sustainable report.

2. Variable measurement

2.1 Dependent variable: Voluntary disclosure index

Content analysis of voluntary disclosure make qualitative data to quantitative data by disclosure index. The unit of measurement used in the previous research consisted of a number of words, sentences and pages. Moreover, using number of sentences instead of words and pages could avoid the issues of the font size differences and the format of each firm. The authors generated a list of disclosure index by adapting from Zunker and Kent and relied on the Stock Exchange of Thailand. The human resource voluntary disclosure index was divided into five categories: employee policy, number of employees, training and development, health and safety and human rights and equality which consisted of 198 items. The validity and the reliability of a human resource voluntary disclosure index were tested. The results showed that the human resource voluntary disclosure of five categories and 198 items were good content validity (IOC >0.50). The reliability of Cronbach's coefficient alpha is 0.6215 which were accepted.

In examining each human resource disclosure items, a dichotomous procedure was followed where each firm was awarded a score of "1" if the firm appeared to have disclosed and "0"otherwise. The disclosure index was calculated as follows:

$$\text{Human resource voluntary disclosure score (HRVD)} = \frac{\text{Total Actual Scores}}{\text{Total Max Scores}} *100$$

2.2 Independent variables and control variables

Productivity (PROD) = (Revenue–Expenses-Pay and Benefits)/Pay and Benefits

Profitability (PROF) = (Revenue–Expenses-Pay and Benefits)/Number of employees

Market Value (MV) = (Market value – Book value)/Number of employees

Competitive Forces (CF) = The variable is a dummy variable, where a value of (1) is disclosed R&D and, (0) otherwise

Size (Size) = The log of number of employees

Age (AGE) = Number of years that the firm has operated its business

Leverage (LEV) = The ratio of total debts to total assets

Growth rate (Grate) = $(Sale_t - Sale_{t-1})/Sale_{t-1}$

3. Empirical model

Multiple regressions were used to analyze the possible relationship between firm human resource efficiency and human resource accounting voluntary disclosure.

$$HRVD = b_0 + b_1PROD + b_2PROF + b_3MV + b_4Size + b_5AGE + b_6LEV + b_7Grate \quad (1)$$

$$HRVD = b_0 + b_1PROD + b_2PROF + b_3MV + b_4CF + b_5PROD*CF + b_6PROF*CF + b_7MV*CF + b_8Size + b_9AGE + b_{10}LEV + b_{11}Grate \quad (2)$$

Results

Table 1 Descriptive Statistics and Correlation Matrix

	HRVD	PROD	PROF	MV	SIZE	AGE	LEV	Grate	VIF
Mean	17.73	3.88	87.58	122.48	0.10	2.91	1.37	0.46	
S.D.	10.93	0.69	79.59	205.05	0.73	0.64	0.14	0.17	
HRVD	1								
PROD	.246*	1							2.778
PROF	.274**	.779**	1						2.950
MV	.363**	.426**	.477**	1					1.479
SIZE	.194	.195	.025	.195	1				1.192
AGE	.345**	-.009	-.002	-.099	.100	1			1.063
LEV	.091	.033	.026	.248*	.022	-.186	1		1.115
Grate	.143	.154	.127	.071	.200	-.057	.083	1	1.074

N= 90 **p<.01, *p<.05

A descriptive statistics, correlation matrix of all variables and Variance Inflation Factor (VIF) are reported in table1. The human resource voluntary disclosure scores from 0 to 43.43 with a mean of 17.73. The highest correlation is between productivity and profitability, with a correlation of 0.779 ($p<0.01$). It is generally accepted that the correlations between independent variables are not harmful in multivariate analysis unless they exceed 0.80 or 0.90. Regarding the potential problems of multicollinearity, VIF was used to test. The maximum value of VIF in this study was 2.95. According to the criterion for multicollinearity problem was VIF above 10. It means that no multicollinearity occurs. (Alsaeed, 2006)

Table 2 Regression results for relationship between human resource efficiency and voluntary disclosure and moderation effect

Variables	Model 1		Model 2	
	Coefficients	t-value	Coefficients	t-value
Constant	-31.971	-2.403*	-10.221	-.755
PROD	.013	.005	-5.554	-2.018
PROF	.015	.689	.063	2.639
MV	.017	2.786*	.016	2.921
CF			.036	.018
PROD*CF			-7.358	-3.682**
PROF*CF			8.354	4.175**
MV*CF			-3.094	-2.789*
SIZE	1.160	.680	1.028	.613
AGE	29.786	4.113**	24.939	3.555*
LEV	4.556	.752	9.344	1.680
Grate	1.628	1.149	.621	.471
R^2		0.312		0.479
Adj R^2		0.253		0.405
R^2 Change		0.312		0.167
F		5.308		6.507

N=90 **p<.01, *p<.05

In Table 2, Model 1 presents the relationship between the human resource efficiency and the human resource voluntary disclosure. It shows that there is a positive and significant association between the human resource efficiency in the market value and the human resource voluntary disclosure (b_3=0.017, p<0.05). R square for human resource efficiency that is predictable from the human resource voluntary disclosure is 31.2%. Thus, H1c is supported. Control variables are size, age, leverage and growth rate. The age is the positive and significant association with the human resource voluntary disclosure (b_5=29.786, p<0.01). This finding is consistent with the previous studies.

The human resource efficiency in the market value added is positively related to voluntary disclosed in Model1

(b_3=0.017, $p<0.05$) when moderating effects which are the competitive forces weaken the relationship in Model 2 (b_7=-3.094, $p<0.05$). It implies that the competitive forces make good performance firms less likely to disclose information as the result of a threat to the company's competitive advantage.

Model 2 presents the moderating effects on the relationship between the human resource efficiency and the human resource voluntary disclosure. It shows that the competitive forces strengthen the relationship between profitability and voluntary disclosure (b_6=8.354, $p<0.01$). However, the competitive forces weaken the relationship between the human resource efficiency in productivity and the voluntary disclosure (b_5=-7.358, $p<0.01$). R square is 47.9% and R square change increases by 16.7%. Therefore, H2a and H2c are supported.

Conclusions

The objective of this study is to investigate the relationship between the human resource efficiency and the human resource voluntary disclosure and to examine the moderating effects of the competitive forces on the relationship. The authors used the data from technology industry group listed on the Stock Exchange of Thailand during 2014-2016. This industry had high capital and the highest trading, which were the focus of investors in stock trading.

The results showed that the firm performance in the market value added had the positive and significant relation to the voluntary disclosure. However, the competitive forces weakened the relationship between the human resource efficiency in the market value and the human resource voluntary disclosure. It implied that competitive forces influenced good performance firms for decision making of disclosed information. Information disclosure will be a disadvantage if the firms imitate their operations such as offering high wages and good benefits for employees. In addition, the technology industry group needs a high capital and requires knowledgeable and highly skilled employees. If the firms disclose more human resource information it might damage the firms since the competitors could attract and hire their employees.

Furthermore, the competitive force effects are weakened on the relationship between the human resource efficiency in productivity and the human resource voluntary disclosure. The interesting of this study is that the competitive force effects are strengthened on the relationship between the human resource efficiency in profitability and the human resource voluntary. Therefore, it is important to further the research in competitive force effects about what causes the human resource efficiency in profitability to disclose more information. Moreover, the future research should be extended to other industries to ensure about the relationship between the human resource efficiency and the human resource voluntary disclosure and the moderating effects on this relationship.

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