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THE DEVELOPMENT OF CORPORATE SOCIAL RESPONSIBILITY ACTIVITY FOR THE FUTURE IN MAP TA PHUT INDUSTRIAL ESTATE, RAYONG PROVINCE, THAILAND.

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ABSTRACT

This study was aimed to examine the relation between types and level of social responsibility of Map Ta Phut Industrial Estate, Rayong Province, Thailand. The samples derived from purposive sampling consisted of 54 businesses, which were also the number of the population for this study. The four sets of data collecting tools for this study were responded and returned by 196 from 216 sets. The questionnaire was focused on general information, types of social responsibility activities, and level of corporate social responsibility. SPSS for Windows was used for data analysis, and canonical correlation was used for analyzing the relation between types of activity and level of corporate social responsibility.

The findings showed that most of the business bodies in Map Ta Phut Industrial Estate were Limited Companies in large-scale industry. The majorities of the business bodies were plastic and synthetic rubber producers. The duration of business operation was from 15 years but not longer than 20 years. Both fresh water and sea water were the environmental resources directly affected by the production process of these businesses.

The result of activity analysis showed moderate or high social responsibility in all aspects. The maximum correlation among the eight variables was 0.854, with social responsibility and communities were affected. Stakeholder management activity for company value creation was affected by the independent variable. This resulted in problematic situations with the community demanding social responsibility.

Keywords: Strategic social responsibility, CSR

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INTRODUCTION

To be a successful business organization is not only a goal but also it needs to protect and have more concern for other people and societies. It must also not cause damage to other people and society (Plunkett, 1994). This goal coincides with Mondy (1998), Business Ethics Center of Jerusalem (2006), and Kotler and Lee (2005) stating that, in running a business, public concern and benefit must not be overlooked. The concept of social responsibility has spread throughout business world reflected in the UN Global Compact Agreement in 1999. The content of the agreement includes 10 universal principles for business transaction called Responsible Corporate Citizen in anti-corruption world society (United Nation, 1999). This increasingly arouses public attention on environment and society (The CSR Asia Center at AIT, 2010). Thailand, as a member of OECD, World Bank, UN, ESCAP, and a country granted financial assistance from IMF and ADB, needs to adopt social and environment concern strategies (Nontanatorn, 2010).

In Thailand, corporate social responsibility is mostly claimed to be the responsibility of industry. This is extremely difficult to monitor between the rapid industrial development, the formation of industrial estates, and the effectiveness of environment and health management. This problem awakens people's awareness and call for more systematic solutions and perceptions (Industrial Estate Authority of Thailand, 2012). From its start in 1988, Map Ta Phut Industrial Estate has continuously caused environment problems. One of the biggest problems is the lawsuit of 29 September 2009 that Map Ta Phut Industrial Estate is prosecuted by the chairman of the Association of Anti-Global Warming and inhabitants in and around Map Ta Phut Industrial Estate. This resulted in a provisional order and abatement of construction projects in Map Ta Phut district (The Administrative Court News 74/2552 dated 2 December 1999). Due to the writ of the Central Administrative Court, private sectors and other related organizations urged the government to lodge an appeal against the writ and to issue ancillary law in accordance with Section 67 Paragraph 2 of the Constitutional Laws year 2550 B.E. in terms of regulation when issuing an investor license (Thairath, retrieved on 14 May 2012).

Hence, if the industrial estate pays more attention to social responsibility and possible negative impacts, and shows its concern to the community and society to decrease negative impacts, it will increase trustworthiness of stakeholders including customers, joint ventures, employees, and community. Certainly, it also improves the company's image in terms of social responsibility, enhances company value creation, and finally, leads to the organization's sustainability (Mandl and Dorr, 2007).

Mentioning economic benefit the Map Ta Phut Industrial Estate providing to Thailand within 10-year period (from 2000-2010), it shows that within the average gross national product of Thailand, 6,949,876.70 baht per year, the average gross product of Rayong province is 420,088.89 baht per year, which is equivalent to 6.04% of the gross domestic product (Office of the National Economics and Social Development Board, 2012). With the enormous economic value to the country, Map Ta Phut Industrial Estate plays very significant role in the Thai economy. As a result, to improve the image of Map Ta Phut Industrial Estate, the companies in the estate should hurriedly practice strategic social responsibility activity, because according to Irene Mandl's and Andrea Dorr's work studying seven European countries, it shows that social responsibility activity is related to competitiveness, and it is also an important tool improving European economy (Mandl and Dorr, 2005). This also coincides with the findings of Husted and Allen, which examining the social responsibility activity of 110 companies in Spain. The findings indicate that strategic social responsibility activity increases company's competitive advantage (Husted and Allen, 2007).

Consequently, considering the success of the practice the most modern strategic social and environmental responsibility activities developed in the West, we intend to examine firstly; the type of social responsibility activity of companies and factories in Map Ta Phut Industrial Estate, secondly the level of company's social and environmental

responsibility, and thirdly the relation between the activity and the level of the responsibility. If the findings show that the relation does not reach the required international standard of strategic social responsibility, then how and what strategies will the industrial estate implement to transform and improve its social responsibility activity to the standard?

METHODOLOGY

This research was conducted according to quantitative research methodology to examine activity type and level of social responsibility of business bodies in Map Ta Phut Industrial Estate using a questionnaire. Information regarding to several items, i.e., concepts, theories, document, and research works related to studied variables, were reviewed for establishing the objectives, framework, and definitions of terms. Activity type was adapted from works of Husted and Allen (2007) and Mandl and Dorr (2005). The level of social responsibility was adapted from Oxfam Hong Kong (2008), Kanji and Chopra (2010), ISO (2010), Reputation Institute (2010), and Business in the community (2012).

An analysis of fundamental data gained from the collection was analyzed using SPSS for Windows, while the relation of activity type and level of social responsibility were analyzed using canonical correlation. The hypothesis was tested to see the relation between activity type and level of social responsibility of Map Ta Phut Industrial Estate.

All populations, 54 organizations derived from purposive sampling, were used as the samples of this study, and each of them was asked to respond four sets of questionnaire. The representatives who responded to the questionnaire were managing directors, directors, managers in employee, and either community relations department or personnel managers of companies in Map Ta Phut Industrial Estate. The number of responded questionnaire sets returned was 196.

The data were analyzed using canonical correlation for the relation of activity type and level of corporate social responsibility. The canonical correlation resulted in the maximum value of possible function between independent and dependent variables, which in turn revealed impacts of variables on canonical correlation (Rc). These impacts were analyzed from canonical correlation or regression weights, indicating the degree of correlation that variable produced in Eigen-vectors. Canonical correlation and the Eigen-value were equivalent to the number of independent variables or the number of dependent variable whose number was less (Srisa-Ard, 1995).

Results

Statistic analysis

The results from statistic analysis showed the general characteristics of the individual category, i.e., activity type, environment, and social responsibility.

The characteristics of activity types consisted of company type, industry type, and business type. There were 144 samples of company type, which was considered as limited companies that equivalent to 73.5 %, whereas other 52 samples were considered as public companies that were equivalent to 26.5%. There were 190 companies, which were categorized as a large industry size that equivalent to 96.5 % where more than 200 employees were employed in each company. There was approximately 2 % of medium industry size in which 50 – 200 people were employed, while there was about 1% of small industry in which less than 50 people were employed.

The information concerning the business type of the industry, the majorities of the samples were obtained from 98 companies that were working with plastic and synthetic rubber producers, which were equivalent to 50%, while 36 companies were primary chemical product producers, which were equivalent to 18.4%. The third type consisted of 28 companies that was petrochemical product producer, which was equivalent to 14.3%. There were 20 companies in the fourth type that served as electricity distributors, which were equivalent to 10.2%. The fifth type consisted of 12 companies that dealing with steel producers, which was equivalent to 6.1%. There were two companies in the sixth type that

served for other activities, which was equivalent to 1%. It was very interesting that there was no textile producer.

The information concerning the duration of business operation were taken into consideration, where the majority of the samples comprised 87 companies that equivalent to 44.4% had been operated their business for at least 15 years, but not longer than 20 years. The second type comprised 48 companies, which was equivalent to 24.5%, was the group of those companies that had been operatedfor more than 20 years, and those that had been operated for 10 years, but not longer than 15 years. The third type comprised seven companies that equivalent to 3.6% was the group of companies, which had been operated for less than five years. The last type comprised six companies that equivalent to 3% was the group of companies, which had been operated from five years but not longer than 10 years.

Several environment factors affected by the operation of the companies were water resources, which come first with 100 companies that equivalent to 51%, followed by air pollution consisted of 87 companies that equivalent to 44.4%, noise pollution consisted of eight companies that equivalent to 4.1%, and soil quality consisted of only one company that equivalent to 0.5%.

The analysis of the three activity types showed that the traditional social responsibility activity was rated high, where the values of $\bar{x}$ = 3.65 and SD = 0.760, the traditional strategic activity was rated moderate, where the values of $\bar{x}$ = 3.14 and SD = 0.720, and the strategic social responsibility activity was rated moderate, where the values of $\bar{x}$ = 3.21 and SD = 0.796.

Results of the analysis of the social responsibility level of the four aspects showed that strategy was rated high, where the values of $\bar{x}$ = 3.82 and SD = 0.825, the aspect of integration was rated moderated where the values of $\bar{x}$ = 3.26 and SD = 0.829, management was rated high where the values of $\bar{x}$ = 3.62 and SD = 0.623, and performance impact was rated high where the values of $\bar{x}$ = 3.50 and SD = 0.872.

Results of relation analysis among various factors, i.e., canonical correlation, canonical weights between activity type variables, which consisted of social responsibility, traditional strategy, and strategic social responsibility, and level of social responsibility variables, which consisted of corporate strategy, integration, management, and performance impact revealed that the correlation coefficient within each pair of activity type variables, 13 out of 66 pairs of variables were correlated in a moderate level, whereas 53 pairs were at low and very low levels. This means that there was no interference of X variables to each dependent variable, which resulted in co-linearity.

Results of correlation coefficient within each pair of social responsibility variables showed that 7 out of 78 pairs of variables were correlated at a high level, while the other 37 pairs were at a moderate level, and the other 33 pairs were at low level, whereas there was only one pair that was found at a very low level. Since the last pair was also important, it could not be omitted by considering it only in terms of statistics (Thompson, 1984 in Tirakanan, 2012).

Results of the inter-correlation coefficient between activity type variables and social responsibility variables revealed that 71 pairs of variables were correlated at a high level with a correlation value of 0.30. This meant that the inter-correlation coefficient between variables was good for the next step of canonical analysis.

Results of overall canonical correlation analysis showed that there were 12 activity type variables (X) and 13 social responsibility variables (Y), where 12 pairs of variables, which were equivalent to the number of less amount variables showed Eigen-value of Canonical Variate (Dillon and Goldstein, 1978). Once the P-value of 12 sets for correlation was determined, it showed that only 8 sets resulted in P-value < 0.5, whereas 196 samples were correlated at weight value > .400 with Lambda Prime value > 0.5, which it could be interpreted that the discriminant ability of independent variables were sufficient for discriminating dependent variables. The canonical correlation values are presented in Table 1.

Table 1. Showing the canonical correlation of variables of activity type, variables of social responsibility, and significance test of canonical correlation.

Variables	Code	Canonical correlation				
		Set 1	Set 2	Set 3	Set 4	Set 5
Level of social responsibility (dependent variable) Corporate strategy	Y1	.800	.146	-.085	-.296	-.093
	Y2	.763	.261	-.014	-.022	.206
	Y3	.750	.271	-.022	-.068	.481
Integration	Y4	.750	.271	-.197	-.096	.368
	Y5	.614	-.086	.117	.100	.420
	Y6	.496	.079	-.205	-.547	.250
	Y7	.706	-.387	.406	.028	-.241
Management	Y8	.842	-.277	-.102	.003	-.135
	Y9	.787	-.028	-.360	-.069	-.127
	Y10	.818	.211	-.076	-.151	.102
	Y11	.696	-.111	-.333	.082	.076
Performance and impact	Y12	.687	-.298	-.224	.110	.223
	Y13	.571	-.563	-.170	-.200	.294
(Independent variables) Traditional CSR	X1	.089	.011	.164	-.510	-.100
	X2	.065	-.264	.048	-.310	-.437
	X3	-.341	-.060	-.203	-.306	.150
	X4	.042	-.389	-.102	-.593	-.038
Traditional strategic	X5	.161	-.106	.345	.252	.438
	X6	.237	.008	.626	-.105	-.166
	X7	.552	-.168	.033	-.602	.085
	X8	.547	.155	-.271	-118	-.037
Strategic corporate social responsibility	X9	.598	-.408	.253	-.003	-.065
	X10	.861	.160	.005	.010	-.172
	X11	.772	-.399	-.203	.105	.159
	X12	.652	-.490	.042	.035	-.252
Eigenvalue		.729	.474	.421	.313	.284
Canonical correlation		.854	.688	.649	.559	.533
Chi- square distribution		692.320	454.360	337.535	238.142	169.815
Lambda prime		.022	.082	.156	.270	.393
Prop.		.000**	.000**	.000**	.000**	.000**

Results in Table 1 showed that the highest impact of those independent variables, which had on the level of social responsibility, was 72.9 % based on the maximum correlation coefficient within each pair of variables of the set I was 0.854. The dependent variables being affected were community (81.8%), marketing (81.8%), strategy (80.0%), environment (78.7%), policy (76.3%), responsibility at senior level (75.0%), reporting (70.6%), workplace (69.6%), environmental impact (68.7%), performance management (61.4%), KPI (58.3%), social impact (57.1%), and effective stakeholder engagement (49.6%), respectively. The independent variables impacting on those dependent variables were managing stakeholder to capture value added to the firm (86.1%), participating in social action demanded by law (77.2%), creating value via product/service innovation linked to social issues (65.2%), building customer awareness of product with CSR value added (59.8%), creating innovation based on ability to learn (55.2%), and creating value via product/service innovation (54.7%).

Results of the analysis on the correlation coefficient within each pair of variables in set II was 0.688. It indicated that the highest impact of those independent variables had on the level of social responsibility was 47.4%. The dependent variable that being most affected was social impact (56.3%), and the independent variables that had impact on the dependent variable were the creating value via product/service innovation linked to social issues (49.0%) and the building customer awareness of product with CSR value added (40.8%).

It was found that the correlation coefficient within each pair of variables in set III was 0.649. It indicated that the highest impact, which those independent variables had on level of social responsibility, was 42.1%. The dependent variable that most affected was reporting (40.6%), while the independent variables that had impact on the dependent variable were managing the supplier, customer, and competitor relations to capture value added to the firm (62.6%).

The correlation coefficient within each pair of variables in set IV was 0.559. It indicated that the highest impact, which those independent variables had on the level of social responsibility, was 31.3%. The dependent variable that most affected was effective stakeholder engagement (54.7%), while the independent variables that had impact on the dependent variable were those of creating innovation based on ability to learn (60.2%), of managing supplier, customer, and competitor relations to capture value added to the firm (59.3%), and those of doing good as its own reward (51.0%).

The correlation coefficient within each pair of variables in set V was 0.533. It indicated that the highest impact of those independent variables had on the level of social responsibility was 28.4%. The dependent variables affected were those that responsible for senior level (48.1%), and performance management (42%). The only independent variable, which most affected was the building customer awareness of product with CSR value added (43.8%). The correlation coefficient for sets 6, 7, and 8 were determined when weight value was considered at > 0.400 with Lambda prime value > 0.5 for 196 samples. This could be interpreted that the discriminate abilities of independent variables were insufficient for discriminating dependent variables, whereas for set I, the relation between independent variables and dependent variables, with weight values of all 13 dependent variables, were summarized as shown in Figure 2.

DISCUSSION

The mean of activity types shows that the level of traditional social responsibility activity practice in Map Ta Phut Industrial Estate is high, while the levels of traditional strategic activity practice and of strategic social responsibility activity are moderate. However, when considering the activity types impacting on social responsibility level, it shows that the impact of strategic social responsibility activity on the social responsibility level is high. The traditional social responsibility activity has no impact on responsibility level. This indicates that the organizations in Map Ta Phut Industrial Estate do not have a clear understanding about how to practice strategic social responsibility

activity, which is the most accepted business practice and was originated in the West. As a result, traditional social responsibility activity, which cannot respond to society expectation in terms of resource and community management, is still being practiced. Evidencing the public concern and prosecution against Map Ta Phut Industrial Estate, to be a successful organization, the leaders must emphasize substantiation and practice of strategic social responsibility activity. As Husted and Allen (2007) and Mandl and Dorr (2005) note, strategic social responsibility is linked to business value and it leads to an organization's success.

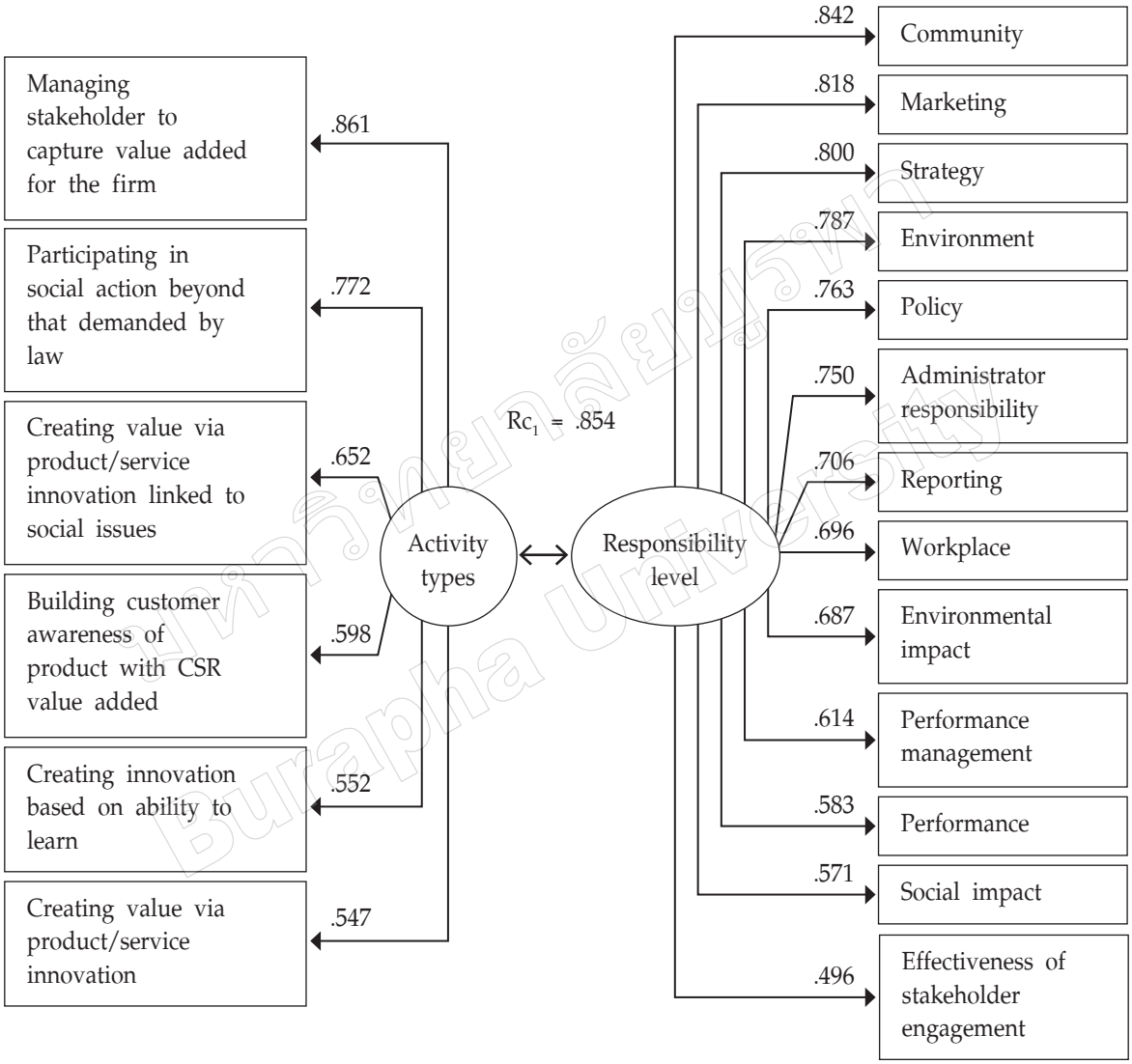

Figure 2. Showing the relation between activity types variables and level of social responsibility variables (Set I).

Considering the level of social responsibility, the weight value of the community is the highest. This means, as a whole, community management of business bodies in Map Ta Phut Industrial Estate is related mostly to the social responsibility activity. As a result, community management must be emphasized. This is coincidental with IBLF's concept (2003) stating that ethical business is based on ethical correctness, and community concern brings about sustainable success. This is confirmed by the research of Hou (2011), examining nine companies, which show that, in terms of community relation, all nine

companies encourage social responsibility activity, and eight companies mention community relation policy and campaign. The main purpose of the policy is focusing on becoming a community-friendly organization. The weight value of marketing is less important than the weight value of the community. This means marketing is also highly related to the social responsibility activity. Hence, marketing management, including concerns for partner, customer, and distributor must be emphasized. This agrees with the concept of Kotler and Lee (2005) that focuses on the implementation of social responsibility activities as important tools for the success of a company.

In contrast, the weight value of effective stakeholder engagement is the lowest. This means, as a whole, this variable is least related to the social responsibility activity. However, it cannot be claimed that this variable is not important. This is because most of the businesses in Map Ta Phut Industrial Estate practice traditional CSR, together with the simultaneous practice of building relationship with stakeholders within the organization, to provide satisfaction to all stakeholders within the organization and with full law compliance. This is coincidental with the argument of Madl and Dorr of KMU Forschung Austria (2007), which have mentioned that law compliance is a motivation for organizations to operate social responsibility activity. This is also coincidental with the findings of the study of Freeman and McVea (2001), which aims to reveal the development of stakeholder management, because in traditional strategy, some stakeholders are perhaps not emphasized. But, in the stakeholder management in the long run, all stakeholders must be managed as a mutual and agreeing strategic social responsibility. Therefore, business bodies in Map Ta Phut must pay attention to stakeholder management in the long run for effectively operating strategic social responsibility activity.

Recommendations on strategy can be pursued through the strategic social responsibility activity, which is developed in the western world long before implementation in Thailand. It is the most modern social and environmental responsibility activity. However, the directions of this activity may not be clearly clarified. Therefore, organization leaders must carefully and enthusiastically substantiate the social responsibility activity. The activity that urgently needs to be substantiated is stakeholder engagement for company value creation. Meanwhile, social responsibility, in terms of community management and marketing management, must also be emphasized. In addition, the effectiveness of stakeholder engagement, participation in the development and in the substantiation of strategic social responsibility activity, must be reinforced.

Since this study was conducted only in Map Ta Phut Industrial Estate to provide a model for social responsibility activity development. Therefore, we would like to make recommendations for further study on other industrial estates in Rayong province, which it should also be studied for overall social responsibility results and can be used for greater benefit at local and national level. Further studies on other factors affecting social responsibility activity, such as leader's influences and other meaningful factors, should be conducted.

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REFERENCES

Business Ethics Center of Jerusalem. 2006. About Business Ethics. Available at URL: http://www.besr.org/aboutethics/. Retrieved on March 2012.

Business in the Community. 2011. Corporate Responsibility Index. Available at URL: http//www.bitc.org.uk/crindex. Retrieved on April 2012.

Freeman, R. E. and McVea, J. 2001. *A Stakeholder to Strategic Management*. Darden Graduate School of Business Administration University of Virginia, Virginia.

Hou, J. and Reber, B.H. 2011. Dimensions of disclosures: Corporate social responsibility

(CSR) reporting by media companies. In Public Relations (Review no 37). Grady College of Journalism and Mass Communication, The University of Georgia, USA.

Husted, B. W., and Allen, D. B. 2007. Strategic Corporate Social Responsibility and Value Creation among Large Firms. *Long Range Planning* 40: 594-610.

International Business Leaders Forum (IBLF). 2003. *IBlF Members*. Available at URL: http://www.iblf.org/csr/csrwebassist.nsf/ content/g1.html. Retrieved on April 2012.

Kanjia, G. K. and Chopra, P. K. 2010. Corporate Social Responsibility in a global economy. Routledge Taylor and Francis Group. *Total Quality Management* 21(2): 119-143.

Kotler, P. and Lee, N. 2005. *Corporate Social Responsibility: Doing the Most Good for Your Company and Your Cause*. John Wiley and Son, USA.

Mandl, I. and Dorr, A. 2007. *CSR and Competitiveness European SMEs'Good Practice*. Kmu Forschung Austria, Austria.

Mondy, W. R. 1998. *Human Resource*. Prentice Hall College Division, New York.

National Statistical Office, Office of Prime Minister. 2009. *Industrial Classification Based on Economic Acitivities*. Available at URL: http://statstd.nso.go.th/classification/download.aspx. Retrieved on March 2012.

Nontanatorn, P. 2010. *Corporate Social Responsibility Management: Sustainable Competitiveness Advantage Building*. Think Beyond Books, Nonthaburi, Thailand (in Thai).

Oxfam Hong Kong. 2008. *Corporate Responsibility Survey of Hang Seng Index Constituent Companies, CSR Asia*. Available at URL: http://csr-asia.com/upload/OHK_CSR_survey.pdf. Retrieved on April 2012.

Plunkett, W. R., and Attner, R.F. 1994. *Introduction to Management*. Wardsworth, Boston.

Reputation Institute. 2010. *Boston College Carroll School of Management, Center for Corporate Cititzenship*. Available at URL: http://www.bcccc.net/pdf/CSRIReport2011.pdf. Retrieved on April 2012.

Srisa-ard, B. 1995. *Statistics for Research*. (2nd ed.). Suwiriyasas, Bangkok, Thailand (in Thai).

Tirakanan. S. 2012. *Multivariate Analysis for Social Science Research* (2nd ed). Chulalongkorn University Press, Bangkok, Thailand (in Thai).