

Research Article

The Management Direction of Industrial Business Organization with the Buddhadhamma Principles

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Abstract

The purposes of this research were to study management direction of industrial business organization with the Buddhadhamma principles and to develop the model of management direction of industrial business organization with the Buddhadhamma principles in order that this direction would be applied in operating the industrial business to balance and lead to sustainable success. Both quantitative and qualitative methods were employed; conducting the in-depth interview with specialists and the survey from 500 entrepreneurs with good corporate governance. The results revealed that the importance level of management direction of industrial business organization with the Buddhadhamma principles was at high level. The analysis showed that the developed structure equation model passed the evaluation criteria, and was consistent with the empirical data. Its chi-square probability level, relative chi-square value, goodness of fit index, and root mean square error of approximation were 0.100, 1.089, 0.946, and 0.013 respectively.

Keywords: Management, Industrial business, Buddhadhamma, Structural equation model

1 Introduction

Today's, the manufacturing system was rapidly developed with the intention to increase productivity. Meanwhile, there were more problems on manufacturing management; the competition in the market became the key issue for survival of business [1]. The development of industrial business among the competition caused problems about corporate governance, especially corruption in the management of corporate executives. According to the economic crime survey in Thailand of Pricewaterhouse Coopers (Thailand) [2], the types of corruption in Thailand comparing to those in Asia-Pacific and worldwide were the corruption in organizations involved in financial management, accounting and taxation. This leads to tax fraud, wage fraud to workers in organizations, and procurement

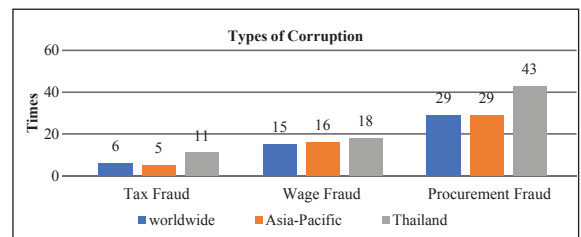


Figure 1: Types of corruption.

fraud that were higher than the rate in Asia-Pacific and worldwide (Figure 1).

Regarding a lack of morality in the human resource management, the industrial entrepreneurs treat their workers unfairly, for example, avoiding paying wages to personnel/employees, or paying the wages that does not meet the government criteria.

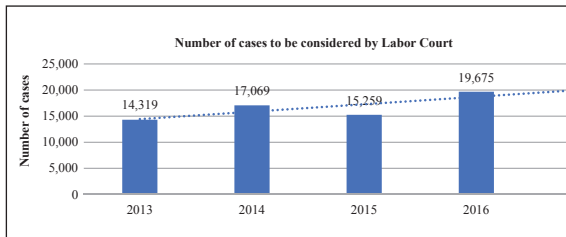


Figure 2: Number of cases to be considered by Labor Court.

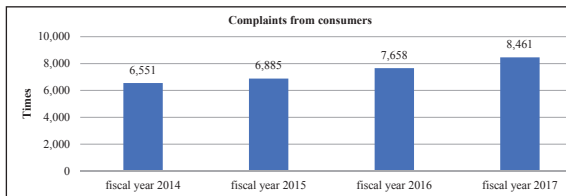


Figure 3: Complaints from consumers.

According to the report of the Court of Justice in [3] the Kingdom of Court of Justice, the number of cases to be considered by Labor Court has been likely to increase (Figure 2).

In addition, the current economic condition has resulted in the intense business competition; most entrepreneurs expect the highest profit from business operation, which leads to violations against business ethics and suffering of the consumer, for instant, commercial buildings and housing are not as specified in the contract and do not perform as advertised, telephone and internet charges are exceeded over true, the internet speed, and the exaggerated advertisement. Consumer complaints statistics of the Office of the Consumer Protection Board [4] has been likely to increase continuously (Figure 3).

Due to the reason that the country focuses on industry, this has a serious impact on environment which caused by a lack of responsibility of the industrial business sector. According to the pollution situation report of Thailand of Pollution Control Department [5], the number of complaints in Thailand has been likely to increase (Figure 4).

The industrial business sector paid attention to the above mentioned problems because they have an impact on organizational management. Therefore, Buddhist principles can be applied in analyzing the cause which leads to the solution. For example, Saṅghavattu 4, principles of service for others, by

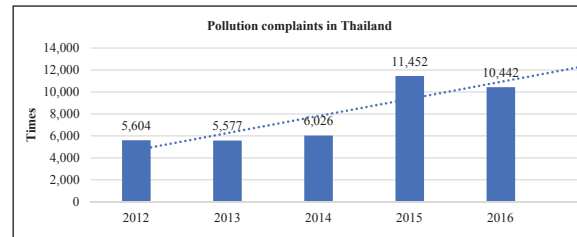


Figure 4: Pollution complaints in Thailand.

giving, communicating with kindly speech, having sincerity, and acting even and equal treatment; in case this principle is applied in the marketing, it will be possible to carry customers' favor. Regarding Iddhipāda 4, principles of accomplishment, by the love in job, perseverance, thoughtfulness, and reasoning; in case this principle is applied in the management, it is possible to create sustainable success to the organization. Regarding Sappurisa-dhamma 7, principles of a good man, by knowing the cause and consequence, knowing oneself and how to temperate, knowing the proper time, knowing how to socialize with society and different individuals; in case the entrepreneurs keep this principle in mind, they will not manufacture the bad quality products and services. Regarding Sāraṇīyadhamma 6, principles for fraternal living, by expressing with kindness, speaking reasonably, thinking well, sharing things, having harmony and not exploiting, and create a peaceful society; this principle can create balance between business, community, and environment to live together happily. From the above mentioned problems, the researcher realized an importance of management direction of industrial business organization with the Buddhadhamma principles, then was interested in studying the application and integration of Buddhadhamma principles to the organization management for the benefit of industrial business to generate efficiency and effectiveness in management in many dimensions, such as marketing, management, manufacturing, and mass.

2 Purposes of the Study

- To study management direction of industrial business organization with the Buddhadhamma principles.
- To develop the model of management direction of industrial business organization with the Buddhadhamma principles.

3 Hypotheses

5 hypotheses were imposed for testing as follows:

H₁ Marketing directly influenced management.

Lin, Wang, & Yu inspected the innovation drivers in channel management and supply chain management and found that the market orientation had a significant correlation with supply chain performance [6]. Accordingly, Green, Toms, and Clark found that marketing orientation had influence on environmental performance [7]. Additionally, it is relevant to the application of principles of service for others and principles of accomplishment; by continuously providing real product information. As a result, the management system is creative by taking into account the transparency [8].

H₂ Marketing directly influenced manufacturing.

Manufacturing is the key of the quality of product delivered to consumers; thereby, the manufacturing strategy must be integrated to marketing [9], [10]. The use of green innovation in automotive supply chain had an impact on automotive manufacturing process of automotive industry [11]. Meanwhile, it is relevant to the application of principles of service for others and principles of a good man; by cooperating with customer to develop the marketing system in order to satisfy the customer, resulting in setting the manufacturing plan correctly [8].

H₃ Mass directly influenced marketing.

Llach *et al.* and Pereira-Moliner *et al.* believed that the organization paying attention to the environment policy for the community can well support the marketing of the organization [12], [13], and the organization with environmental performance or green innovation [11] would be accepted by the community and had potential over competitors in the same industry [14]. In addition, it is relevant to the application of principles for fraternal living and principles of service for others, which can create harmony and can be a reminder, resulting in customer satisfaction [8].

H₄ Mass directly influenced manufacturing.

The focus on environmental sustainability had a direct effect on the performance of the manufacturer in order to take care of the community, society and the environment [15]. Moreover, Yang, *et al.* believed that the results of environmental management from the manufacturing process were an important mechanism for living together with the community and the society

[16]. In addition, ecological responsibility to the mass affected the operation of the environment, which is relevant to principles for fraternal living and principles of a good man [8].

H₅ Mass directly influenced management.

Roy, & Khastagir pointed out that the environmental management for community had a relationship with corporate governance in green projects to enhance the efficiency of the petrochemical industry [17]. The action in social responsibility affected the evaluation of social performance of the chemical organization [18]. Meanwhile, the application of principles for fraternal living and principles of accomplishment with the recognition of social responsibility can create the commitment to take care of the community, society and environment [8].

4 Research Methodology

This research is an inductive research, and has been designed as the mixed method, being divided into 3 parts: beginning with the qualitative research by conducting the in-depth interview, followed by the quantitative research, and confirming the validity of the equation model with qualitative research by conducting the focus group. The variables consist of

- 92 observed variables were investigated.
- Endogenous latent variables consisted of marketing, management, and manufacturing.
- Exogenous latent variable comprised mass.

Qualitative research were conducted by the in-depth interview with 9 specialists: namely, industrial operators, experts in Buddhism, and academics; and the focus group with 7 specialists: namely, small and medium industrial entrepreneurs, large industrial entrepreneurs, company employees, community leaders, social agents, mass media, environmental agents, and independent organizations.

The populations of the quantitative study were 2,626 entrepreneurs in the industrial business sector, that are managed by the Buddhadhamma principles with good governance principles [19]. They were classified into 2 groups: the large industrial entrepreneur, and the small and medium industrial entrepreneur. 500 of them were randomly selected as it is believed to be most appropriate number for the structure equation model analysis [20].

The instrument used in the qualitative research was

the structured interview form, while in the quantitative research was a questionnaire in the format of checklist and Likert type with five-point rating scale [21].

Descriptive and referential statistics were used to analyze the data via SPSS software while AMOS was employed for multivariate statistical analysis and for development of Structural Equations Modeling (SEM). Four criteria for evaluating the data-model fit were: Chi-square probability level of > 0.05 , relative chi-square < 2 , goodness of fit index > 0.90 , and root

mean square error of approximation of < 0.08 [22].

5 Results

- The industrial business organization recognized the importance of management direction of industrial business organization with the Buddhhadhamma principles in total at high level ($\bar{X} = 4.28$). Five management directions in each aspect rated as most important were shown in Table 1 below.

Table 1: Management direction of industrial business organization with the Buddhhadhamma principles

Management Direction of Industrial Business Organization with the Buddhhadhamma Principles	\bar{X}	S.D.	Level of Importance
1 Marketing	4.30	0.53	High
1.1 Determine to offer good quality products to customers	4.57	0.75	Highest
1.2 Have mercy to provide services and support customers	4.49	0.71	High
1.3 Be honest with customers in selling quality products, not selling counterfeit products	4.48	0.69	High
1.4 Have a fair business competition	4.48	0.70	High
1.5 Provide true or complete information or advertising without concealing information	4.43	0.71	High
2 Management	4.31	0.36	High
2.1 Have morality, ethics and code of conduct	4.42	0.58	High
2.2 Rotate and transfer tasks to improve the skills and knowledge of employees	4.39	0.51	High
2.3 Allocate people to work according to their knowledge and ability	4.39	0.56	High
2.4 Encourage all employees to work together as team	4.39	0.57	High
2.5 Be creative and develop the process of thinking	4.38	0.58	High
3 Manufacturing	4.29	0.35	High
3.1 Pay wages or remunerations to workers with fairness	4.41	0.56	High
3.2 Make regular maintenance plan	4.38	0.56	High
3.3 Inspect equipment, machinery and instrument to keep them in good working order	4.37	0.59	High
3.4 Supply efficient raw materials	4.34	0.55	High
3.5 Use eco-friendly manufacturing technology	4.34	0.56	High
4 Mass	4.24	0.60	High
4.1 Respect the laws and regulations, and follow the customary morality	4.34	0.74	High
4.2 Know the self-sacrifice for the common good	4.32	0.75	High
4.3 Donate or share resources to charitable causes	4.29	0.74	High
4.4 Cultivate employees to have good intentions and do useful things for the community and society.	4.27	0.75	High
4.5 Take care of environmental issues to ensure safety to be better than legal standards	4.26	0.74	High

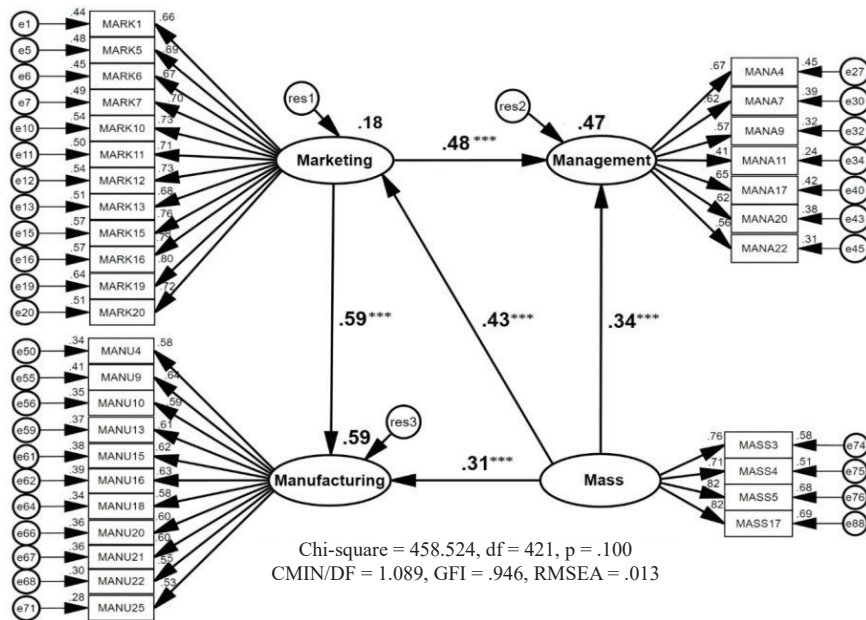


Figure 5: The model of management direction of industrial business organization with the Buddhhadhmma principles after the improvement.

- The data-model fit evaluation of the model of management direction of industrial business organization with the Buddhhadhmma principles before being improved indicated that the chi-square probability level was 0.000, relative chi-square value was 1.908, goodness of fit index was 0.660, and root mean square error of approximation was 0.43. The analysis showed that two statistic values that passed the criteria and were consistent with the empirical data were relative chi-square and root mean square error of approximation, which were 1.908 and 0.043 respectively.

Meanwhile, there were two statistic values that did not pass the evaluation criteria of conformance to empirical data of models; the chi-square probability level (0.000) and goodness of fit index (0.660).

After the improvement by considering the modification indices, according to Arbuckle [22], it was found that the chi-square probability level was 0.100, relative chi-square was 1.089, goodness of fit index was 0.946, and root mean square error of approximation was 0.013. All four statistic values passed the evaluation criteria and were consistent with the empirical data as shown in Figure 5 and Tables 2 and 3.

- Results of the hypothesis test

1. Marketing directly influenced manufacturing

and management at the statistical significance level of 0.001. The values of their factor loading were 0.59 and 0.48 respectively.

2. Mass directly influenced marketing, management, and manufacturing at the statistical significance level of 0.001. The values of their factor loading were 0.43, 0.34, and 0.31 respectively.

6 Discussion

Five important issues arising from the results and the hypotheses test of this study could be presented, discussed, and concluded. Related literature would be brought to support and argue such issues as follows:

- Marketing directly influenced management, which is in line with Lin, Wang & Yu and Green *et al.*, who studied about the innovation drivers in channel management and supply chain management and found that market orientation had a significant correlation with supply chain performance [6], [7]. Additionally, it is relevant to the application of principles of service for others and principles of accomplishment, which create a good relationship to customers and result in management to work to achieve goals of organization [8].



Table 2: Meaning of the abbreviations used in management direction of industrial business organization with the Buddhadhamma principles after the improvement

Variables	Meaning	Variables	Meaning
MARK 1	Determine to offer good quality products to customers	MANU 4	Set proper measures to reduce electricity consumption
MARK 5	Have a fair business competition	MANU 9	Inspect equipment, machinery and instrument to keep them in good working order
MARK 6	Support and help clients succeed in business.	MANU 10	Quality control with PDCA principles or principles of action planning and monitoring the work with commitment
MARK 7	Take care of customer sincerely	MANU 13	Improve the manufacturing process according to international standards
MARK 10	Establish customer service center to increase complaints channels for customers	MANU 15	Select qualified employees who are knowledgeable and proficient in manufacturing
MARK 11	Organize activities to create the relationship between company and customers	MANU 16	Provide expert trainers in manufacturing to continually educate employees
MARK 12	Comply with business conditions to the customers strictly	MANU 18	Provide safety equipment for repairing machinery completely
MARK 13	Behave beneficially to customers	MANU 20	Providing annual health check to manufacturing employees at least twice a year
MARK 15	Provides consistent customer service, including pre-sales, during the sales, and after-sales	MANU 21	Organize activities to build good relationships among manufacturing staff
MARK 16	Provide service and care to every level of customers equally	MANU 22	Adopt modern technology and machinery/equipment to be used in the manufacturing process
MARK 19	Use innovation to develop products and services to have consistently good quality	MANU 25	Use eco-friendly manufacturing technology
MARK 20	Use communication technology to develop the speed of customer service	MASS 3	Provide opportunities for the community to express their different opinions in order to adjust their attitudes to work together
MANA 4	Show efforts and attentions in doing assigned tasks.	MASS 4	Know the self-sacrifice for the common good
MANA 7	Create a commitment for every employee to work together to achieve goals of organization	MASS 5	Respect the laws and regulations, and follow the customary morality
MANA 9	Be consistent to implement the policy	MASS 17	Develop the society, community, and environment in terms of religion, tradition, culture, and natural resources conservation
MANA11	Motivate employees to finish the assignment, such as by promotion, award, or evaluation		
MANA 17	Punish the offender and give employees the opportunity to improve themselves		
MANA 20	Be consultants rather than commanders		
MANA 22	Adopt Philosophy of Sufficiency Economy to manage the organization for sustainable and happy living.		

Table 3: Statistic values after the improvement of the developed model

Variable	Estimate		R ²	Variance	C.R.	P
	Standard	Unstandard				
Marketing						
Management	0.48	0.37	0.47	0.07	6.96	***
Manufacturing	0.59	0.37	0.59	0.04	8.11	***
Mass						
Marketing	0.43	0.38	0.18	0.18	6.40	***
Manufacturing	0.31	0.17	0.59	0.04	4.99	***
Management	0.34	0.23	0.47	0.07	5.04	***

- Marketing directly influenced manufacturing, which is in line with Li and Lee, Rhee & Oh, who studied about the effectiveness of competitive marketing pressure affecting the practice and effectiveness of manufacturing innovation [9], [10]. Meanwhile, it is relevant to the application of principles of service for others and principles of a good man [8]; this create customer satisfaction, therefore, the executives must have reasonableness and self-moderation, and know proper time for manufacturing in order to set the manufacturing plan and policy correctly.

- Mass directly influenced marketing, which is in line with Pereira-Moliner *et al.* and Larran *et al.*, who studied about the common impact of environmental quality on organizational competitiveness, and found that environmental performance had a direct result to marketing success that developed the competitiveness [13], [14]. In addition, environmental regulations had a positive effect on green innovation initiatives [11]. Moreover, it is relevant to the application of principles for fraternal living and principles of service for others, which can create good relationship and satisfaction between partners to increase the performance in business competition [8].

- Mass directly influenced manufacturing, which is in line with Koo, Chung & Ryoo and Yang *et al.*, who studied about ecological responsibility affecting manufacturing firm's economic performance, and found that the environmental sustainability had a direct impact on manufacturing firm's performance [15], [16]. In addition, ecological responsibility to the mass affected the operation of the environment, which is relevant to principles for fraternal living and principles of a good man, which were the principles for the industry, society, community and environment to live together [8].

- Mass directly influenced management, which is in line with Valiente, Garces & Salvador, and Roy and Khastagir, who studied about social responsibility and corporate social responsibility assessment of the organization, and found that there was a positive relationship from mass to the organizational performance [17], [18]. Meanwhile, it is relevant to principles for fraternal living and principles of accomplishment [8], in order to live together with social responsibility, to create commitment to everyone to work together for taking care of community, society, and environment.

7 Suggestions

Some suggestions can be proposed according to the results of this study as follows:

- The development of industrial business in the midst of competition has caused problems from the management of industrial business that lacks ethics in management, especially marketing. Therefore, the industrial business must apply principles of service for others in managing the marketing, by using innovation to develop products and services to have good quality, adhering to the principle of consistency, taking care of customers sincerely, and holding on to the promise, having a fair business competition, and not expecting too much profit to affect consumers.

- The industrial business organization must have the management process with morality by applying principles of accomplishment, by generating good corporate governance from executives and personnel, cultivating personnel to have efforts and accountability, also the consciousness in terms of morality, ethics, and code of conduct to work together as relatives; the executives have mercy and create good relationship.

- The development of manufacturing technology in a leap generates more complexity because of the expectation to increase the productivity. The industrial business organization must apply principles of a good man in creating the machine safety inspection tool and controlling the manufacturing quality from the professionals, and using the eco-friendly manufacturing technology.

- The present expectation to develop the industrial business to bring about the economic prosperity neglects the responsibility in consistently setting the developing policy, plan, and management, including that the management of community, society, and environment lacks the explicit direction. Therefore, the industrial business organization must apply principles for fraternal living to solve problems in the same direction by respecting laws and regulations, knowing the self-sacrifice for the common good, accepting the different opinions in order to adjust their attitudes to work together, and adhering to be good citizen and good people for the society.

References

- [1] K. Ploypanitcharoen, *TQM: Total Quality Management*. Bangkok, Thailand: TPA Publishing, 2014.

- [2] Price waterhouse Coopers Thailand. (2014). Survey of economic crimes in Thailand. Price waterhouse Coopers Thailand. Bangkok, Thailand [Online]. Available: <https://www.pwc.com/th/en/consulting/forensic/assets/economic-crime-thailand-2014-th-02042015.pdf>
- [3] Court of Justice. (2017). Report of the Court of Justice in the Kingdom. Court of Justice. Bangkok, Thailand [Online]. Available: http://www.oppb.coj.go.th/doc/data/oppb/oppb_1502361510.pdf (in Thai)
- [4] The Office of the Consumer Protection Board. (2017). Consumer Complaints Statistics. The Office of the Consumer Protection Board. Bangkok, Thailand [Online]. Available: <http://www.ocpb.go.th/ewtnews.php?nid=7139&filename=index> (in Thai)
- [5] Pollution Control Department. (2017). Report on Thailand's Pollution Situation 2017. Pollution Control Department. Bangkok, Thailand [Online]. Available: http://infofile.pcd.go.th/mgt/Thailand_state_pollution2017%20Thai.pdf?CFID=1819863&CFTOKEN=85236962
- [6] Y. Lin, Y. Wang, and C. Yu, "Investigating the drivers of the innovation in channel integration and supply chain performance: A strategy orientated perspective," *Production Economics*, vol. 127, pp. 320–332, 2010.
- [7] K. W. Green, L. C. Toms, and J. Clark, "Impact of market orientation on environmental sustainability strategy," *Management Research Review*, vol. 38, pp. 217–238, 2015.
- [8] P. A. Payutto, *Dictionary of Buddhism*, 34th ed. Bangkok, Thailand: Education for Peace Foundation, 2016.
- [9] W. Lee, S. K. Rhee, and J. Oh, "The relationships between manufacturing strategy process, manufacturing-marketing integration, and plant performance: An empirical study of Korean manufacturers," *Operations Management Research*, vol. 7, pp. 117–133, 2014.
- [10] Y. Li, "Environmental innovation practices and performance: Moderating effect of resource commitment," *Journal of Cleaner Production*, vol. 66, pp. 450–458, 2014.
- [11] S. Zailani, K. Govindan, M. Iranmanesh, M. R. Shaharudin, and C. Y. Sia, "Green innovation adoption in automotive supply chain: The Malaysian case," *Journal of Cleaner Production*, vol. 108, pp. 1115–1122, 2015.
- [12] J. P. J. Llach, M. d. M. Alonso-Almeida, and L. Bagur-Femenías, "Joint impact of quality and environmental practices on firm performance in small service businesses: An empirical study of restaurants," *Journal of Cleaner Production*, vol. 44, pp. 96–104, 2013.
- [13] J. Pereira-Moliner, E. Claver-Cortés, J. F. Molina-Azorín, and J. J. Tari, "Quality management, environmental management and firm performance: Direct and mediating effects in the hotel industry," *Journal of Cleaner Production*, vol. 37, pp. 82–92, 2012.
- [14] J. M. Larrán, M. J. Herrera, D. Martínez-Martínez, and S. M. P. Lechuga, "Competitiveness and environmental performance in Spanish small and medium enterprises: Is there a direct link?," *Journal of Cleaner Production*, vol. 101, pp. 26–37, 2015.
- [15] C. Koo, N. Chung, and S. Y. Ryoo, "How does ecological responsibility affect manufacturing firms' environmental and economic performance?," *Total Quality Management*, vol. 25, pp. 1171–1189, 2013.
- [16] C. L. Yang, S. P. Lin, Y. H. Chan, and C. Sheu, "Mediated effect of environmental management on manufacturing competitiveness: An empirical study" *International Journal of Production Economics*, vol. 123, pp. 210–220, 2010.
- [17] M. Roy and D. Khastagir, "Exploring role of green management in enhancing organizational efficiency in petro-chemical industry in India," *Journal of Cleaner Production*, vol. 121, pp. 109–115, 2016.
- [18] J. M. A. Valiente, C. Garcés Ayerbe, and M. Salvador Figueras, "Social responsibility practices and evaluation of corporate social performance," *Journal of Cleaner Production*, vol. 35, pp. 25–38, 2012.
- [19] Rayong Industry Office. (2017). Number of all types of industrial operators in Rayong. Rayong Industry Office. Rayong, Thailand [Online]. Available: <http://www.industry.go.th/rayong/> (in Thai)
- [20] A. L. Comrey and H. B. Lee, *A First Course in Factor Analysis*, 2nd ed., Hillsdale, NJ: Lawrence Erlbaum, 1992.
- [21] M. David and C. Sutton, *Social Research: An Introduction*. California: Sage, 2011.
- [22] *IBM SPSS Amos™ 20 User's Guide*, IBM, New York, US, 2011.