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A Relationship Between Total Quality Management And Sustainable Organization Development

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The purposes of this research were: (1) to study total quality management of public companies in Bangkok; (2) to study sustainable organization development of public companies in Bangkok; and (3) to find a relationship between total quality management and sustainable organization development of public companies in Bangkok. The samples used in this study were 375 employees working in Thai public companies in Bangkok. The instrument used to collect data was a research questionnaire. Statistics used in this study consisted of percentage, mean, standard deviation, and Pearson Product-Moment Correlation Coefficient. The research results showed that total quality management, in total, was perceived at the highest level. In particular, customer focus had the highest mean value, followed by continuous improvement, personnel focus and process management respectively. The sustainable organization development of public companies , in total, was perceived at high level. In particular, economic sustainability had the highest mean value, followed by social sustainability, and environmental sustainability. Total quality management was highly associated with sustainable organization development.

Keywords: Total quality management, Strategic Management, Total Quality Management, Sustainable organization development

1. INTRODUCTION

Public companies are corporations or organizations that are established for the sake of profits. Some public companies are owned by the government and place great emphasis on providing public utilities and facilities. In order to survive in the age of globalization, Thai state enterprise have to apply total quality management and adjust themselves to cope with the rapid changes of the world situations which inevitably affect the economic status, income, growth, productivity, and profit of the organizations. The modern organizations have to improve their strategy not just only to create profit, but to increase the sustainability of their business over the long run. The sustainability of the business can be evaluated through its economic, social and environmental sustainability. In this regard, Horak et al. (2018) stated that in order to maintain sustainable organization development, each organization must have a strong foundation such as ideology, philosophy, vision, strategy, organizational value and culture. Moreover, the changes from external factors have forced the organizations to rapidly adjust themselves to the economic, social and environmental situations. Whether changes may happen from any factors, for their survival, modern organizations must be well prepared to cope with those changes. Brockett and Rezaee (2012) and Christofi et al. (2012) described that business organizations have to pay much attention on sustainability, which can help improve the profit of the business, social well-being and environmental protection. To be successful over the long run, each business corporation must make a well balance between its economic growth and the welfare of the community and the environment. The action of business company must be accountable for fulfilling its civic duty and social responsibility, which can help to gain support from the community and society that the company is located and doing business with.

Total Quality Management (TQM) is a management system aimed at quality that emphasizes management in all aspects, activities, and processes of an organization. It is widely used in both the public and private sectors, such as overall quality management in hospitals, the influence of overall quality management on the performance of construction companies in Vietnam, and the total quality management of the Government Savings Bank, etc. It focuses on the overall quality of the organization, including management and continuous improvement of product or service quality, involving all levels of employees and everyone in the organization, from procurement personnel to customers, to strive for excellence in producing high-quality products and services that meet customer satisfaction, enabling the organization to survive in a changing environment. In addition, the corporate policy should focus on maintaining good environment and social well-being in order to receive social support and customer satisfaction. Asif et al. (2010) and Channuwong and Ruksat (2022) found that sustainable organization development is a business concept receiving much attention from all business sectors and its importance is increasing rapidly to the extent that economy, society and environment have a great impact on business sustainability. Even though business prioritizes corporate profitability, but without social and communal support, business cannot achieve sustainable growth. Therefore, sustainable organizations must pay much attention on protecting environment, creating equity and fairness to the society, and developing economic system through distribution of income to the community and society. Therefore, management strategy should be applied to create sustainability of the organization.

The researchers believe that total quality management can be applied to create economic, social and environmental sustainability of public companies in Bangkok. Therefore, the researchers are interested in conducting this study.

Purposes of the Study

The purposes of this study are:

(1) To study total quality management of public companies in Bangkok

(2) To study sustainable organization development of public companies in Bangkok

(3) To find a relationship between total quality management and sustainable organization development of public companies in Bangkok

2. LITERATURE REVIEW

The concept of total quality management (TQM) is a widely popular approach to management and organizational control in the present day. It is considered as a strategic framework for managing operations to enhance efficiency and effectiveness within an organization. The concept has evolved from the manufacturing industry, initially emphasizing the need for quality in production and inspection, primarily post-production. Subsequently, there emerged a focus on quality control that emphasized process management and quality monitoring as activities aimed at identifying or inspecting work-related errors to seek corrective actions (Wongmajarapinya et al., 2024; Channuwong, 2018). Deming (1982) stated that total quality management is a management and control approach that utilizes information derived from customers, both internal and external, to establish the value of processes and the organization's service or product. This approach is essential for designing the organization's work system to minimize its impact on the surrounding environment while continually improving the process. It necessitates active participation from all personnel to deliver the value of the products or services, aligning with the evolving needs and higher standards of both internal and external customers. This collaborative effort aims to enhance the operational capabilities of the organization for sustainable growth. Moreover, it requires strong leadership from top-level management to continuously diagnose operational performance. Anderson (2020) and Heizer and Barry (2010) emphasized that the core of total quality management is ensuring that products and services are produced to meet customer satisfaction and create happiness among customers. This requires well-defined and closely monitored processes while maintaining constant awareness of customer needs. Continuous improvements in these products are considered essential for companies to compete effectively in the global market. To achieve success in Total quality management, several critical activities must be implemented: 1. Organization practices: These encompass leadership, mission statements, effective operating improvement, staff support, training, and the yields or results obtained from operations. 2. Quality principles: Quality principles include customer focus, continuous improvement, employee empowerment, benchmarking, just-in-time (JIT) delivery systems, the use of total quality management tools, and yields or results. 3. Employee fulfillment: Employee fulfillment involves employee empowerment, fostering organizational commitment, and

addressing employee attitudes and satisfaction. 4. Customer satisfaction: This aspect involves meeting customer needs, retaining repeat customers, and achieving satisfactory yields or results.
Incorporating these activities is essential for organizations to successfully implement total quality management and enhance overall quality and customer satisfaction.

Total quality management can be defined as a combination of a number of organizational improvement techniques and approaches, the use of statistical process control, self-managed teams and work forces, and employee participation to increase efficiency and effectiveness of work performance (French & Bell, 1999). Total quality management has an influence on work performance and is designed to meet with organizational expectation and improve internal process of work operation through the four dimensions of techniques and practices. The first dimension is customer focus. Customer satisfaction is the driving force leading to organizational success. Customer satisfaction can help to increase market share and profit of the business. The second dimension is continuous improvement. This dimension can accomplished through utilization of a systemic process of self-assessment and benchmarking. The third dimension is employee fulfillment. This dimension is to foster a higher level of employee morale, employee commitment, and a greater employee motivation with the philosophy that human resources are important to the success, productivity and profitability of the organization. The fourth dimension is the improvement of the total organizational system. Each system in the organization should be totally improved and changed to cope with the current situations and high competitions of the global market (Anderson, 2020).

The idea about sustainable organization development had been widely accepted as the key indicator for the success of business and is the most challenge for current organizational administrators. Rather than focusing on organizational profits, the administrators have to place importance on maintaining social well-being, social benefits and environmental protection (Broniewicz, 2011; Pinta, 2016). Sustainable organization development means the attempt of the organization to create long-term profit and competitive advantage through improving human life quality, social welfare, social well-being, and environmental protection. This method can create customer satisfaction and social acceptance towards the organization. It helps to reduce risk that may cause from uncertainty and fluctuation of economy, society and environment (Aras & Crowther, 2009).

The factors used to analyze the sustainability of the organization are social, ecological and financial outcomes. Therefore, organizations must take responsibility for improving social well-being and environmental protection over the long run. Society and business are interrelated and are dependent upon each other. Society needs business to provide goods for consuming, and business depends on society to gain support and profitability (Gupta & Kumar, 2013). Sustainable organization development means doing business with social responsibility, which is consisted of social development, economic development, and environmental development. This is called “Triple bottom lines” , which are the components of sustainable development. In order to achieve sustainable business, organization must pay attention on the well-being of society, economy and environment, and these should be integrated to the policy, strategy and decision making of the organizational activities (Hyunkee & Richard, 2011).

From a literature survey, it can be concluded that total quality management consisting of continuous improvement, customer focus, personnel focus and process management can be applied to create sustainable organization development of Thai public companies. Therefore, the research framework of this study was proposed (Figure 1).

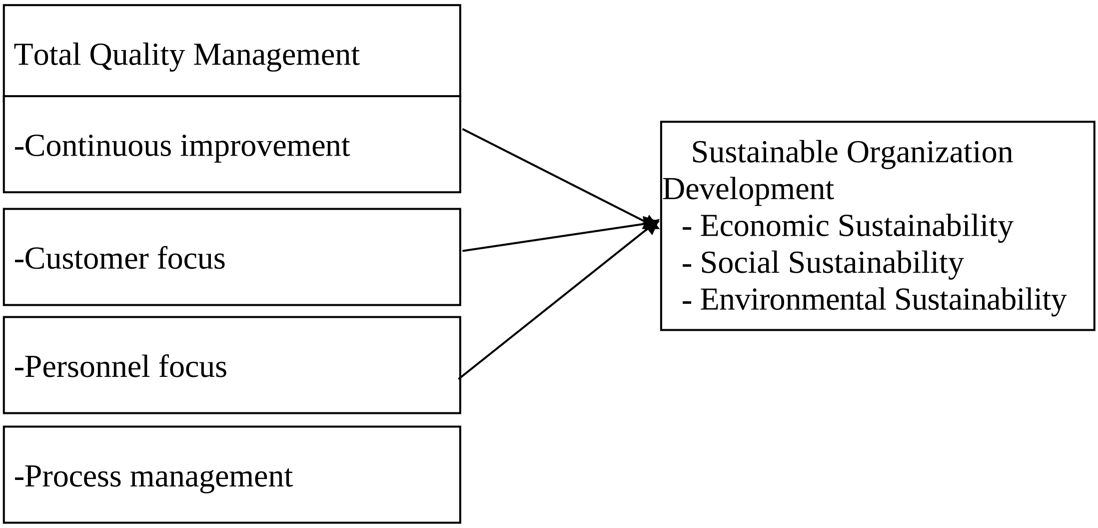

Figure 1 Research Framework

Research Hypotheses

There is a relationship between total quality management and sustainable organization development of public companies in Bangkok

3. METHODS

This study applied a quantitative research method. The research used a research questionnaire to collect data with the following steps:

Populations and Samples

The populations and samples used in this study were employees working in public companies in Bangkok with the amount of 112,406 persons. The researchers calculated the sample sizes using the formula of Taro Yamane, and 398 samples were obtained.

Variables Used in this Study

The variables used in this study consisted of independent and dependent variable. Independent variable is total quality management consisting of continuous improvement (CI), customer focus (CF), personnel focus (PF) and process management (PM), and dependent variable is sustainable organization development consisting of economic sustainability (ECS), social sustainability (SOS) and environmental sustainability (ENS).

Instrument Used to Collect Data

A research questionnaire was used as a tool to collect data. The researchers had studied concepts and theories about sustainable organization development and total quality management from researches, articles and texts in order to develop the conceptual framework and research questionnaire. The structure of the questionnaire was divided into three parts: Part one was a research questionnaire containing six questions with regard to personal information of participants i.e. gender, age, marital status, educational level, monthly income and work experience. Part two was a research questionnaire containing 14 questions with regard to total quality management: continuous improvement (CI), customer focus (CF), personnel focus (PF) and process management (PM). Part three was a research questionnaire containing 12 questions with regard to sustainable organization development: economic sustainability (ECS), social sustainability (SOS) and environmental sustainability (ENS).

Criteria Used to Interpret the Data

The researchers analyzed quantitative data obtained from the Likert Scale questionnaire. The criteria used for interpreting the questionnaire are as follows:

5: Strongly Agree
4: Agree
3: Neutral
2: Disagree
1: Strongly Disagree

The criteria used to interpret the mean value were as follows:

4.21-5.00 = Strongly agree
3.41-4.20 = Agree
2.61-3.40 = Neutral
1.81-2.60 = Disagree
1.00-1.80 = Strongly Disagree

Content Validity and Reliability Test

The research questionnaire was verified by five research scholars to find the content validity using Item Objective Congruence Index (IOC), and the IOC value of .97 was obtained. The researchers had distributed the research questionnaire to 30 employees who had the same personal characteristics, but were not the samples in this study, in order to test the reliability, and the reliability value of .98 was obtained.

Data collection

The researchers had distributed the questionnaire to 398 samples during December 1, 2023 to February 20, 2024, and received 375 questionnaires in return which can be calculated as 94 percent.

Statistics Used to Analyze Data

Both descriptive statistics consisting of frequency, percentage, mean and standard deviation, and inferential statistics consisting of Pearson Correlation, and Stepwise Multiple Regression Analysis were used in this study. Frequency and percentage were used to analyze personal information. Mean and standard deviation were used to analyze total quality management and sustainable organization development. Pearson Correlation was used to find a relationship between total quality management and sustainable organization development.

4. RESULTS

In this section, the researchers presented the research results in the following five parts:

Part 1: Demographic files of Respondents

The research results on general information of respondents showed that the majority of respondents were males at 60.26 percent, and females at 39.74 percent. The ages of the majority of respondents were between 36-45 years old at 39.74 percent, followed by ages between 46-55 years old at 19.87 percent, ages between 26-35 years old at 16.56 percent, ages more than 56 years old at 13.90 percent, and ages less than 25 years old at 9.95 percent. The majority of respondents were single at 49.67 percent, followed by married at 43.05 percent, widowed at 3.97 percent, and divorced at 3.31 percent. The majority of respondents finished bachelor's degree at 43.05 percent, followed by degree lower than bachelor's degree at 36.42 percent, master's degree at 13.25 percent, and doctoral degree at 7.28 percent. The majority of respondents had work experience between 5-15 years at 33.11 percent, followed by work experience less than 5 years at 23.18 percent, work experience between 16-25 years at 19.87, work experience between 26-35 years at 13.25 percent, and work experience more than 36 years at 10.60 percent. The majority of respondents received monthly income between 25,001-35,000 baht at 46.36, followed by monthly income between 15,001-25,000 baht at 23.19 percent, monthly income between 5,000-15,000 baht at 16.56 percent, monthly income between 35,001-45,000 baht at 9.93 percent, and monthly income more than 45,000 baht at 3.97 percent.

Part 2: The Results of Analysis on Total Quality Management

In this part, we analyzed total quality management of public companies in Bangkok. The research results showed that total quality management, in total, was perceived at the highest level (M = 4.25, SD = 0.20). In particular, customer focus had the highest mean value (M = 4.35, SD = 0.14), followed by continuous improvement (M = 4.26, SD = 0.16), personnel focus (M = 4.20, SD = 0.25) and process management (M = 4.19, SD = 0.26) respectively (Table 1).

Table 1 Mean and standard deviation of the total quality management of public companies in Bangkok

Total quality management	M	SD	Level	Ranking
1. Continuous improvement	4.26	0.14	Highest	2
2. Customer focus	4.35	0.16	Highest	1
3. Personnel focus	4.20	0.25	High	3
4. Process management	4.19	0.26	High	4

Total Average	4.25	0.20	Highest

Part 3: The Results of Analysis on Sustainable Organization Development

In this part, we analyzed sustainable organization development of public companies in Bangkok. The research results showed that sustainable organization development of public companies , in total, was perceived at high level (M = 4.20, SD = 0.14). In particular, economic sustainability had the highest mean value (M = 4.25, SD = 0.13), followed by social sustainability (M = 4.20, SD = 0.14), and environmental sustainability (M = 4.17, SD = 0.17) respectively (Table 2).

Table 2 Mean and standard deviation of sustainable organization development of public companies in Bangkok

Sustainable organization development	M	SD	Level	Ranking
1. Economic sustainability	4.25	0.13	Highest	1
2. Social sustainability	4.20	0.14	High	2
3. Environmental sustainability	4.17	0.17	High	3
Total Average	4.20	0.14	High	

Part 4: The Results of Analysis on the Correlation Coefficient between Total quality Management and Sustainable Organization Development

Ha1: There is a relationship between total quality management and sustainable organization development

In this part, we analyzed a relationship between total quality management and sustainable organization development of public companies in Bangkok. The research results showed that the internal correlation of total quality management was positive, which means that each variable had a relationship in the same direction with a statistical significance at the 0.01 level, and the correlation value ranged from 0.428 to 0.731. The correlation between total quality management and sustainable organization development ranged from 0.570 to 0.736, and continuous improvement (CI) is highly associated with sustainable organization development (ORS) (Table 3).

Table 3 The Correlation between Total Quality Management and Sustainable Organization Development of Public Companies in Bangkok

Variables	CI	CF	PF	PM	ORS
CI	1	.428**	.638**	.731**	.736
CF		1	.736**	.674**	.675
PF			1	.569**	.570

PM	1	.568
ORS	1	

****** p < .01

5. DISCUSSIONS AND CONCLUSIONS

The research results showed that total quality management, in total, was perceived at the highest level. In particular, customer focus had the highest mean value, followed by continuous improvement, personnel focus and process management respectively. The results of this study are relevant to a study of Choenram (2020) which found that total quality management should be applied to improve continuous improvement, teamworking, systematic thinking, knowledge and experience sharing, and self-adjustment of employees, which will lead to increase sustainable growth of the organization. In this matter, Snongtaweeporn (2020) stated that total quality management can be applied to increase the total quality of work performance in the organization. The processes of total quality management require employee involvement, employee participation, decentralized decision-making, leadership development, employee knowledge and skill development and cultural change.

The research results showed that sustainable organization development of public companies , in total, was perceived at high level. In particular, economic sustainability had the highest mean value, followed by social sustainability, and environmental sustainability respectively. The results of this study are relevant to a study of Tongboonchoo (2014) which found that economic sustainability of the organizations receive much attention from many business companies. Organizations can increase sustainability through customer participation, social responsibility, social development, social well-being and environmental protection. In this matter, Brockett and Rezaee (2012) and Christofi et al. (2012) confirmed that in order to increase sustainable organization development, business corporations have to make a balance between their profits and social responsibility and social well-being. Business corporations should help to improve the community to be a better place to live. When the community is full of serenity, safety, peace and stability, business corporations can run business smoothly without any obstacles.

The research results showed that the internal correlation of total quality management was positive, which means that each variable had a relationship in the same direction with statistical significance at 0.01. The correlation between total quality management and sustainable organization development ranged from 0.569 to 0.735, which continuous improvement is highly associated with sustainable organization development (ORS). The results of this study are relevant to a study of Porter et al.(2016) which found that total quality management is the operation technic that can be applied to improve all internal processes of the organization to reach the expected outcome. The results of this study are relevant to the studies of Bangbon et al. (2024), Channuwong et al. (2024) and Wongmajarapinya et al. (2024) which found that total quality management is highly related to sustainable growth and profit of the company. Total quality management can be applied to increase work quality, organizational performance, efficiency and effectiveness.

Recommendations

Based on the research results, the researchers would like to suggest that public companies should apply total quality management to improve customer satisfaction, employee participation and teamwork, and internal continual process for reducing and eliminating operational errors in the organization.

This study focused only on employees of public companies in Bangkok, it is possible that the research results cannot be used to generalize management strategy and sustainable organization development of other enterprises located outside Bangkok metropolitan areas. Therefore, future study should focus on employees of public companies located in other regions of Thailand. Total quality management in this study focused on strategic management, learning organization and total quality management, future study should focus on other management strategies such as balanced scorecard and benchmarking to increase sustainable organization development.

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