

# การบัญชีต้นทุนคุณภาพและผลการดำเนินงานทางการตลาด: หลักฐานเชิงประจักษ์จากธุรกิจที่ได้รับ ISO9000 ในประเทศไทย

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## บทคัดย่อ

การวิจัยนี้มีเป้าหมายเพื่อทดสอบอิทธิพลของการบัญชีต้นทุนคุณภาพที่มีต่อการบริหารงานที่มุ่งเน้นคุณภาพ ภาพพจน์องค์กร การยอมรับของตลาด และผลการดำเนินงานทางการตลาดของธุรกิจที่ได้รับ ISO9000 ในประเทศไทย ในการวิจัยนี้ ธุรกิจที่ได้รับ ISO9000 ในประเทศไทย จำนวน 229 บริษัทเป็นกลุ่มตัวอย่างในการวิจัย ผลลัพธ์ของการวิจัย พบว่า การบัญชีต้นทุนคุณภาพมีผลกระทบเชิงบวกต่อการบริหารงานที่มุ่งเน้นคุณภาพ ภาพพจน์องค์กร การยอมรับของตลาด และผลการดำเนินงานทางการตลาด นอกจากนี้ การบริหารงานที่มุ่งเน้นคุณภาพมีอิทธิพลเชิงบวกต่อภาพพจน์องค์กรและการยอมรับของตลาด ภาพพจน์องค์กรมีผลกระทบเชิงบวกต่อการยอมรับของตลาดและผลการดำเนินงานทางการตลาด และการยอมรับของตลาดมีบทบาทเชิงบวกในการกำหนดผลการดำเนินงานทางการตลาด การวิจัยนี้พิสูจน์และยืนยันอย่างชัดเจนว่า การปฏิบัติทางการบัญชีต้นทุนคุณภาพมีความสำคัญสำหรับกิจการในการบริหารจัดการธุรกิจให้ประสบความสำเร็จ ดังนั้น กิจการจะต้องจัดสรรทรัพยากรอย่างเพียงพอในการพัฒนาและการประยุกต์ใช้การบัญชีต้นทุนคุณภาพให้มีประสิทธิผล เพื่อให้บรรลุผลการดำเนินงานที่ดีในสภาพแวดล้อมทางการแข่งขัน

**คำสำคัญ:** การบัญชีต้นทุนคุณภาพ, การมุ่งเน้นคุณภาพ, ภาพพจน์องค์กร, การยอมรับของตลาด, และผลการดำเนินงานทางการตลาด

# QUALITY COSTING AND MARKETING PERFORMANCE: EMPIRICAL EVIDENCE FROM ISO 9000 BUSINESSES IN THAILAND

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## ABSTRACT

This study aims at examining the influences of quality costing on quality orientation, organizational image, market acceptance, and marketing performance of ISO 9000 businesses in Thailand. In this study, 229 ISO 9000 businesses in Thailand are the samples of the study. Within the research results, quality costing has a positive impact on quality orientation, organizational image, market acceptance, and marketing performance. Also, quality orientation has a positive influence on organizational image and market acceptance; organizational image has a positive effect on market acceptance and marketing performance; and market acceptance has a positive role in determining marketing performance. This study definitely verifies and confirms that quality costing practice is important for firms in successfully managing businesses. Thus, firms need to put their resources in developing and implementing quality costing effectively in order to achieve best business outcomes in the competitive environments.

**Keywords:** Quality costing, quality orientation, organizational image, market acceptance, marketing performance

## 1. Introduction

Recently, competitive environments have been uncertain, complex, volatile, and turbulent. They are undergoing rapid and significant changes. Firms have had a difficult time in doing their business activities and strategies under these environments in order to have good performance, generate superior profitability, gain more growth, and achieve survival and sustainability in the current and future operations within the competitive markets. They have outstandingly attempted to apply, implement and utilize their useful operational strategies efficiently and effectively for supporting best customer needs and market response. Quality becomes a strategic

tool of firms in responding to needs and requirements of customers and markets. It is a key driver in defining and determining their competitiveness in the competitive marketplace. Hence, quality is widely acknowledged to be an important strategic competence and a key competitive weapon in the rigorous competitive markets and environments (Eldridge, Balubaid, & Barber, 2006). Firms with greater quality of products and services are likely to fulfill more customer wants, establish better market acceptance, build sustainable competitive advantage, and create business success in the long run. Likewise, quality is the central customer value and it is a critical success factor for achieving competitiveness via meeting customer

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requirements (Schiffauerova & Thomson, 2006). Best quality improvements have significant effects on successful business operations and great goal achievements. Firms need to initiate continuous improvement programs by building activities of dynamic quality management. To succeed in developing continuous quality improvement programs, firms should be also aware of the lowest costs in doing the programs. Thus, both meeting customer requirements and reducing quality costs are fundamental for developing and improving quality products and services. Interestingly, quality costs are the costs of design, application, and maintenance of a quality management system, the costs of continuous improvement resources, and the costs of system, product and service failures (Dale & Plunkett, 1995). They comprise conformance costs as the prevention costs of poor quality, such as quality inspection and appraisal and non-conformance costs as the product and service failure costs of poor quality, such as reworks and returns. Also, quality costs include prevention costs (spent to avoid failures), appraisal costs (spent to detect failures) and failure costs (spent due to failure occurrence) (Sedevich Fons, 2012). Practices of identifying, recording, reporting, and interpreting quality cost data can help firms make appropriate and good decision in the competitive situations. Accordingly, quality costing is important and necessary for successfully doing businesses. Quality costing is defined as the practices that relate to collecting, measuring and classifying quality cost data, analyzing, reporting and using quality cost data, and selecting, using and maintaining quality-related financial metrics (Luther & Sartawi, 2011). It is a critical step for the effective planning and implementation of quality improvement programs. Firms with successfully implementing quality costing practice tend to survive and sustain longevity in the markets. Hence, quality costing is a strategic business practice that can lead firms to meet customer needs, requirements, wants,

and expectations and achieve their goals through success, performance, growth, survival, and sustainability. In this study, quality costing definitely plays a significant role in determining and explaining firms' quality orientation, organizational image, market acceptance, and marketing performance. Then, quality costing linking to quality orientation, organizational image, market acceptance, and marketing performance is empirically investigated in this study.

The objective of this study is to investigate the influences of quality costing on quality orientation, organizational image, market acceptance, and marketing performance of ISO 9000 businesses in Thailand. The research questions are 1) how quality costing has an influence on quality orientation, organizational image, market acceptance, and marketing performance, 2) how quality orientation has an effect on organizational image and market acceptance, 3) how organizational image has an impact on market acceptance and marketing performance, and 4) how market acceptance has an interaction with marketing performance. The remainder of this study presents relevant literature reviews of quality orientation, organizational image, market acceptance, and marketing performance, establishes hypotheses development of the study, provides research methods in the study, indicates results and discussions of the study, and defines contributions, suggestions for future research, and conclusion of the study.

## 2. Relevant literature review

In this study, the relationships among quality costing, quality orientation, organizational image, market acceptance, and marketing performance are empirically investigated. Figure 1 shows the relationship model of quality costing, quality orientation, organizational image, market acceptance, and marketing performance as follows.

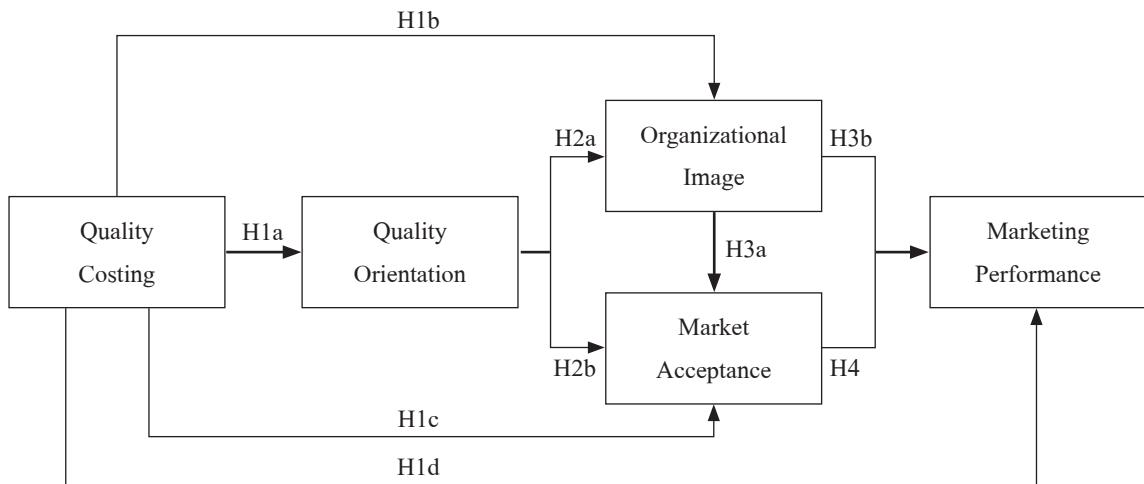


Figure 1 The Relationship Model of Quality Costing, Quality Orientation, Organizational Image, Marketing Acceptance, and Marketing Performance

## 2.1 Quality costing

Quality costing is important for firms in developing a system of quality improvement programs in order to meet customer requirements, gain competitiveness and achieve their goals effectively. Here, quality costing refers to the practices that relate to collecting, measuring and classifying quality cost data, analyzing, reporting and using quality cost data, and selecting, using and maintaining quality-related financial metrics (Luther & Sartawi, 2011). It is the process of identifying, measuring and communicating of economic information relating to quality costs to permit informed judgments and decisions by users of information. Effective quality costing presents best business practice of firms and it affects decision making efficiency of both technique and strategic aspects in surviving and sustaining their business operations. Quality costs include 1) prevention costs as costs of education, training and process study in quality-related problems, 2) appraisal costs as costs of inspections and grading relating to the quality standard and required specifications, 3) internal failure costs as costs of repairs and reworking with quality problems discovered before shipment, and 4) external failure costs as costs of returns, repairs and complaint settlements with quality problems

after shipment (Giakatis & Rooney, 2000). It explicitly attempts to assess the cost effectiveness of the associations among prevention costs, appraisal costs, internal failure costs, and external failure costs. It is a means of helping firms to reduce manufacturing costs by identifying excessive cost and non-value adding activities (Eldridge, Balubaid, & Barber, 2006). Firms with best quality costing practice can make good products and services with substantial cost savings and high revenues. They critically attempt to improve the quality of their products and services and reduce the costs of quality. As mentioned earlier, quality costing plays an important role in determining customer satisfaction and ensuring organizational success. It helps firms successfully respond to customers' quality demands by implementing quality management programs to fulfill customer requirements and build competitive advantage (Sharma, Kumar, & Kumar, 2007). Firms with effective quality costing implementation explicitly focus on the quality-oriented aspects of products and services. Greater quality of products and services also create better organizational image, build more market acceptance and generate outstanding marketing performance. Thus, quality costing is likely to have a positive influence on quality

orientation, organizational image, market acceptance, and marketing performance. Therefore,

H1: Quality costing has a positive influence on a) quality orientation, b) organizational image, c) market acceptance, and d) marketing performance.

## 2.2 Quality orientation

Quality is an important strategic dimension of firms to responds to customers' quality demands by implementing quality costing practice as a way to increase customer satisfaction, build market acceptance and create organizational success. Then, firms with quality costing implementation reflect how they are committed to quality strategies, operations, techniques, and practices. They explicitly become quality-oriented organizations. Hence, quality orientation is the main outcome of implementing quality costing practice. Quality orientation is defined as the extent to which firms attempt to improve their products through standard tools and processes (Lin & Germain, 2003). It leads firms to increase customer satisfaction and achieve good performance, including image, acceptance, market share, profits, stability, and sustainability. Also, quality orientation is an organization's philosophy or culture that focuses on a quality practice tool for eliminating defects and improving processes and represents the shift of organizational vision and value toward quality at all organizational levels (Wang and Wei, 2005). It presents a philosophical commitment to developing and maintaining a sustainable quality-based competitive advantage leading to increased business performance (Mehra, Joyal, & Rhee, 2011). The attention to quality would be transformed to organizational functions, employee mindsets and practical learning and improvement that are critical for sustainable total quality. Concerning with quality orientation, firms definitely pay more attention in developing and improving quality products through investing quality management system, establishing quality costing practice and applying product quality as a successful static tool in doing

businesses. Moreover, quality orientation refers to management practices oriented toward achieving high levels of product quality and customer satisfaction (Marinova, Ye, & Singh, 2008). These management practices are actions and directives of management priorities and guidelines for regulating employee efforts toward desired goals. More customer satisfaction promotes firms to gain better organizational image, have greater market acceptance and finally receive outstanding performance. Accordingly, quality orientation tends to have a positive influence on organizational image and market acceptance. Therefore, the research hypothesis is as follows:

H2: Quality orientation has a positive influence on a) organizational image and b) market acceptance.

## 2.3 Organizational image

Quality-oriented firms have successfully operated in the turbulent markets and environments because they could fulfill customer requirements, initiate organizational image and build market acceptance. Here, organizational image is a significant outcome of quality orientation. Organizational image is the social and public perceptions and knowledge about a given organization and it refers to the sum of public' beliefs, experiences, feelings, ideas, and impressions of an organization (Kim, Lee, & Prideaux, 2014). It represents the unique and individual personality of a firm that differentiates it from its competitors. Good organizational image is positively linked to the reliability, credibility and acceptance of product identity. Furthermore, organizational image could be classified into two streams, including intended image as 1) the mental associations about the organization that the organization wants important audiences to hold and 2) construed image as the mental associations that organization members believe others outside the organization to hold the organization (Spyropoulou, Skarmeas, & Katsikeas, 2010). A favorable organizational image can boost firms to increase customer satisfaction and loyalty and enable them to achieve higher

levels of profits. Likewise, organizational image is the totality of all the public impressions, pictures, knowledge, and perceptions formed in an organization (Moguluwa & Achor, 2012). It reflects a firm's organizational identity that relates to the way its publics perceive or see its mission, culture and lifestyle. It is an indicator that attracts potential or existing customers to be willing to come into contact with a firm. Thus, firms with better organizational image could increase more market acceptance and generate greater sustainable performance, such as marketing performance, financial performance and strategic performance. Accordingly, organizational image is likely to have a positive influence on market acceptance and marketing performance. Therefore, the research hypothesis is as follows:

H3: Organizational image has a positive influence on a) market acceptance and b) marketing performance.

#### **2.4 Market acceptance**

Market acceptance is the valuable outcome of quality costing, quality orientation and organizational image. Firms need to pay attention to functions and responsibilities to build market acceptance because market acceptance could influence customer participation in their products and activities and lead to superior business performance and success. In this study, market acceptance refers to the intent to choose and participate or the actual choice of firms' products, operations and activities (Chung and Holdsworth, 2009). Also, market acceptance is defined as the stakeholders' attitudes and behavioral intentions relating to firms' product and marketing activities (Wu & Kuo, 2016). It includes 1) perceived usefulness as the confidence of stakeholders participating in firm products could improve their work performance and 2) trust as stakeholders' sense of dependability for the organization. It has an incentive to reduce uncertainty about the product's performance. The stakeholders present a willingness to choose an organization and pay for their quality products.

Their behavioral intentions to participate a given organization are main drivers of business results and outcomes. With more market acceptance, firms could bring higher levels of customer participation and create better growth of marketing performance. Thus, market acceptance explicitly determines firms' marketing performance and business success. Moreover, market acceptance represents how stakeholders believe in firms' business operations and practices. Greater operational belief has a positive relationship with more market acceptance that reflects sales increases, customer loyalty, more new coming customers, growth in market share, and executive satisfaction with marketing aspect. Then, market acceptance is likely to have a positive influence on marketing performance. Therefore, the research hypothesis is as follows:

H4: Market acceptance has a positive influence on marketing performance.

### **3. Research method**

#### **3.1 Data collection**

In this study, ISO 9000 businesses in Thailand were selected as samples of the study because these businesses have operated and done their operations by concerning with quality aspect. The questionnaire surveys via mail procedures were sent to 1,000 ISO 9000 businesses in Thailand by using accounting executives as the key informants who have the functions and responsibilities of preparing financial statements and providing accounting information relating to firms' quality management activities. In a mailing process, 23 questionnaires were undeliverable because some listed firms had moved to unknown locations. Deducting the undeliverable mailing, the valid mailing was 971 questionnaires, from which 245 responses were received. Of the questionnaires completed and returned, there are 229 usable questionnaires that are empirically utilized to measure validation of the research tool and to analyze data for the research results.

The effective response rate was approximately 23.58% which is considered acceptable for the response rate for a mail survey because it is greater than 20% (Aaker, Kumar and Day, 2001). To examine potential and non-response bias and detect and consider possible problems with non-response errors, the assessment and investigation of non-response-bias used a comparison of the first and the second wave data via firm age, firm size and firm capital as recommended by Armstrong and Overton (1977). There were no statistically significant differences between first and second groups at a 95% confidence level as firm age ( $t = 0.113, p > 0.05$ ), firm age ( $t = 0.131, p > 0.05$ ) and firm capital ( $t = 0.125, p > 0.05$ ). In this regard, neither procedure showed significant differences.

### 3.2 Measures

All constructs were measured using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), except firm age, firm size and firm capital. Here, six-item scale was developed to assess quality costing as how firms collect, measure and classify quality cost data, analyze, report and use quality cost data, and select, use and maintain quality-related financial metrics. Next, four-item scale was introduced to evaluate quality orientation as how firms were committed to develop and maintain a sustainable quality-based competitive advantage and provide management practices oriented toward achieving high levels of product quality. Also, four-item scale was established to measure how the public presents beliefs, experiences, feelings, ideas, and impressions of firms. Likewise, four-item scale was initiated to gauge how stakeholders have attitudes and behavioral intentions

relating to firms' product and marketing activities. Lastly, marketing performance is a dependent variable of the study and it is defined as an outcome of firms' doing businesses efficiently and effectively in market aspect. Five-item scale was presented to investigate how firms achieve sales increases, customer loyalty, more new coming customers, growth in market share, and executive satisfaction with marketing aspect. For the control variables of the study, firm age was measured by the number of years a firm has been in existence, firm size was measured by the number of employees in a firm, and firm capital was measured by the amount of money a firm has invested in doing business.

### 3.3. Research instrument tests

Factor analysis was utilized to measure the underlying relationships of a large number of items and to determine whether they can be reduced to a smaller set of factors. A higher rule-of-thumb, a cut-off value of 0.40, was adopted (Nunnally and Bernstein, 1994). All factor loadings as values of 0.44-0.94 are greater than the 0.40 cut-off and are statistically significant. Also, discriminant power was used to evaluate the validity of the measurements by item-total correlation. In the scale validity, item-total correlation as values of 0.72-0.91 is greater than 0.30 (Churchill, 1979). Likewise, the reliability of the measurements was assessed by Cronbach alpha coefficients. In the scale reliability, Cronbach alpha coefficients as values of 0.79-0.93 are greater than 0.70 (Nunnally and Bernstein, 1994). Hence, the scales of all measures appear to produce internally consistent results and these measures are deemed appropriate for further analysis as shown in Table 1.

Table 1 Results of Measure Validation

Items	Factor loadings	Item-total correlation	Cronbach alpha
Quality Costing (QC)	0.44-0.85	0.75-0.89	0.79
Quality Orientation (QO)	0.75-0.92	0.80-0.90	0.87
Organizational Image (OI)	0.82-0.90	0.81-0.90	0.88
Market Acceptance (MA)	0.87-0.94	0.79-0.91	0.93
Marketing Performance (MP)	0.73-0.88	0.72-0.88	0.89

To empirically examine the research relationships, the ordinary least squares (OLS) multiple regression analysis is conducted because all variables in this study were neither nominal data nor categorical data (Chan & Mak, 2012). The results of this study are presented in the next section.

#### 4. Results and discussion

Table 2 shows the descriptive statistics and correlation matrix for all variables. Multicollinearity might occur when inter-correlation in each predict variable is more than 0.80, which is a high relationship (Hair, Black,

Babin, Anderson, 2010). The correlations ranging from 0.42 to 0.69 at the  $p < 0.05$  level, which means that the possible relationships of the variables in the conceptual model could be tested. Also, variance inflation factors (VIFs) were used to provide information on the extent to which non-orthogonality among independent variables inflates standard errors. The VIFs range from 1.06 to 2.67, well below the cut-off value of 10 as recommended by Neter, Wasserman and Kutner (1985), which means that the independent variables are not correlated with each other. Thus, there are no substantial multicollinearity problems encountered in this study.

Table 2 Descriptive Statistics and Correlation Matrix

Variables	QC	QO	OI	MA	MP
Mean	4.40	4.43	4.15	4.02	4.00
s.d.	0.38	0.49	0.60	0.69	0.65
QC					
QO	0.56***				
OI	0.53***	0.64***			
MA	0.42***	0.61***	0.66***		
MP	0.52***	0.65***	0.69***	0.68***	

\*\*\* $p < .01$

Table 3 presents the results of OLS multiple regression analysis of the relationships among quality costing, quality orientation, organizational image, market

acceptance, and marketing performance. Firstly, quality costing plays an important role in defining and determining quality orientation, organizational image, market



acceptance, and marketing performance. It has a significant positive influence on quality orientation ( $b = 0.58, p < 0.01$ ), organizational image ( $b = 0.56, p < 0.01$ ), market acceptance ( $b = 0.43, p < 0.01$ ), and marketing performance ( $b = 0.57, p < 0.01$ ) respectively. In the existing literature, quality costing is the process of identifying, measuring and communicating of economic information relating to quality costs to permit informed judgments and decisions by users of information (Luther & Sartawi, 2011). Firms with effective quality costing explicitly present their best business practice of firms, provide decision making efficiency of both technique and strategic aspects, and survive and sustain their business operations in the competitive markets and environments. Successful quality costing implementation enables firms to focus on

quality-oriented aspect in their operations, build organizational image effectively, generate market acceptance continuity, and achieve superior marketing performance. *Therefore, Hypotheses 1a-1d are supported.*

Secondly, quality orientation is a valuable outcome of quality costing practice implementation. It is an organization's philosophy or culture that focuses on a quality practice tool for eliminating defects, improving processes and representing the shift of organizational vision and value toward quality at all organizational levels (Wang and Wei, 2005). Quality-oriented firms attempt to develop and improve quality products through investing quality management system, establishing quality costing practice and applying product quality as a successful static tool in doing

Table 3 Results of OLS Multiple Regression Analysis<sup>a</sup>

Independent Variables	Dependent variables							
	QC	OI	MA	MP	OI	MA	MA	MP
QP	0.58*** (0.07)	0.56*** (0.07)	0.43*** (0.08)	0.57*** (0.08)				
QC					0.61*** (0.07)	0.59*** (0.07)		
OI							0.76*** (0.06)	0.69*** (0.08)
MA								0.18** (0.08)
FA	0.14 (0.12)	0.15 (0.11)	0.01 (0.13)	0.08 (0.12)	0.08 (0.11)	-0.08 (0.12)	-0.12 (0.10)	-0.02 (0.09)
FS	-0.11 (0.07)	-0.07 (0.07)	-0.01 (0.07)	-0.06 (0.07)	-0.01 (0.06)	0.06 (0.07)	0.05 (0.06)	-0.01 (0.05)
FC	0.08 (0.06)	0.13 (0.06)	0.09 (0.07)	0.02 (0.06)	0.12 (0.06)	0.06 (0.06)	-0.01 (0.05)	-0.07 (0.05)
Adjusted R <sup>2</sup>	0.34	0.36	0.20	0.31	0.42	0.36	0.56	0.64

\*\* $p < 0.05$ , \*\*\* $p < 0.01$ , <sup>a</sup> Beta coefficients with standard errors in parenthesis.

businesses. They could create organizational image and initiate market acceptance via applying quality-oriented operations. Thus, more quality orientation definitely has a critical determinant of organizational image and market acceptance. Accordingly, quality orientation has a positive influence on organizational image ( $b = 0.61, p < 0.01$ ) and market acceptance ( $b = 0.59, p < 0.01$ ). *Therefore, Hypotheses 2a-2b are supported.*

Thirdly, organizational image has an outstanding role in driving and explaining market acceptance and marketing performance. It is the social and public perceptions, pictures and knowledge about a given organization and the sum of publics' beliefs, experiences, feelings, ideas, and impressions of an organization (Kim, Lee, & Prideaux, 2014). It is an indicator that attracts potential or existing customers to be willing to come into contact with firms. A favorable organizational image can support firms to increase customer satisfaction and loyalty and enable them to achieve higher levels of profits. Hence, firms with great organizational image would gain valuable market acceptance and achieve superior marketing performance. Thus, organizational image has a positive influence on market acceptance ( $b = 0.76, p < 0.01$ ) and marketing performance ( $b = 0.69, p < 0.01$ ). *Therefore, Hypotheses 3a-3b are supported.*

Lastly, market acceptance has a positive association with marketing performance. It represents how customers and other stakeholders present the reliability, credibility and confidence of firms' products, operations and activities. It is the stakeholders' attitudes and behavioral intentions relating to firms' product and marketing activities (Wu & Kuo, 2016). Firms with more market acceptance could bring higher levels of customer participation and create better growth of marketing performance. Then, market acceptance has a significant positive influence on marketing performance ( $b = 0.18, p < 0.03$ ). Greater market acceptance has an important relationship with better

marketing performance. *Therefore, Hypothesis 4a is supported.*

## 5. Contributions and directions for future research

### 5.1 Theoretical contribution and directions for future research

This study attempts to verify and confirms the existing literature of the relationships among quality costing, quality orientation, organizational image, market acceptance, and marketing performance. These variables are put in the same model. To expand the benefits, advantages and contributions of the study, future research is needed to be investigated. Future research may need to test mediating effects of quality orientation on the quality costing-organizational image relationships and the quality costing-market acceptance relationships, the mediating effects of organizational image on the quality orientation-marketing performance relationships, and the mediating effects of market acceptance on the quality orientation-marketing performance relationships. Also, future research may need to do more literature of moderators of the relationships in order to make the current study stronger. Likewise, future research may need to collect more data and/or larger sample group for potentially enhancing and encouraging the research results and collect data from different samples in order to build the generalizability of this study.

### 5.2 Managerial contribution

Quality costing is important for firms to fulfill customer requirement, increase customer satisfaction, create competitive advantage, and generate business growth in the competitive markets and environments. Thus, executives of firms need to commit a system of quality management and improvement programs by playing attention on how to invest their resources, competencies and capabilities to implement quality costing practice and utilize it as a significant strategic tool in successfully doing

businesses. More effective quality costing practice implementation has a positive relationship with greater business outcomes and results, including quality orientation, organizational image, market acceptance, and marketing performance. Hence, quality costing becomes a strategic valuable approach and tool that helps firms succeed in the competitive situations and circumstances in current situation and in the future.

## 6. Conclusion

Quality becomes a strategic tool of firms in responding needs and requirements of customers and markets and is a key driver in defining and determining their competitiveness in the competitive marketplace. Hence, the objective of this study is to investigate the influences of quality costing on quality orientation, organizational image, market acceptance, and marketing performance of ISO 9000 businesses in Thailand. In this study, 229 ISO 9000 businesses in Thailand are the sample of the study. The results indicate that quality costing has a positive

impact on quality orientation, organizational image, market acceptance, and marketing performance. Also, quality orientation has a positive influence on organizational image and market acceptance while organizational image has a positive effect on market acceptance and marketing performance. Likewise, market acceptance has a positive role in determining marketing performance. In summary, quality costing definitely plays an important role in determining and explaining business outcomes and results. However, future research is needed to verify and expand the current study by testing mediating effects of quality orientation, organizational image and market acceptance on the research relationships, doing literature reviews of moderators of the research relationships and investing moderating effects of the relationships, and collecting more data and/or larger sample group for potentially enhancing and encouraging the research results and collecting data from different samples in order to build the generalizability of this study.

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