

# The Relationships among Target Cost Management, Cost Advantage, Customer Satisfaction and Sustainable Competitive Advantage of Micro, Small and Medium-sized Enterprises (MSMEs) in Thailand

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## Abstract

The purpose of this research was to examine the effect of target cost management on sustainable competitive advantage. Data was collected from 400 Micro, Small and Medium-sized Enterprises in Thailand by questionnaire mail survey. The key informants were accounting executives. To test the research relationships, structural equation modeling (SEM) as a statistical technique was employed. The results revealed that target cost management had a significant positive association with cost advantage, customer satisfaction and sustainable competitive advantage. Likewise, cost advantage was positively related to customer satisfaction. Furthermore, customer satisfaction had a positive influence on sustainable competitive advantage. To improve and increase the benefits of target cost management, executives need to determine how to implement target cost management in a business, link this strategic operational tool to cost advantages, customer satisfaction and sustainable competitive advantage, and efficiently and effectively manage and deal with competitive markets and environments. Therefore, firms need to create business vision, be aware of competitive forces and manage organizational changes through outstanding restructuring, redesign and re-engineering their practices, operations, functions, and strategies in order to meet target cost management implementation requirements.

**Keywords :** Target Cost Management, Cost Advantage, Customer Satisfaction, Sustainable Competitive Advantage, Micro, Small and Medium-sized Enterprises

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## 1. Introduction

To achieve superior economic performances, firms attempt to use strategic analysis methods and modern production organization for obtaining a real advantage compared to the competitors' firms. Within the adopted strategies, firms have promoted, primarily, new production organization and cost analysis methods, which have a direct association in increasing labor productivity, turnover and profit, minimizing stock costs, reducing production cycles, and ongoing production costs and enhancing capital rotation speed. The firms' economic performance is becoming increasingly more globalized and the economic entities are faced with the appearance of new producers in almost all the geographic areas (Ionescu, 2015). Within this new context, firms have to quickly invigorate their competence and respond to the rapid change of the business environment to achieve their strategic goals. All these changes have also led to the adaptation of cost instruments and management control. Under these new conditions, to achieve their goals related to quality, quantity, cost and flexibility, the economic entities are trying to construct and implement new internal and external structures. The piloting of all economic entities' processes and capabilities must be done in order to continually increase performance (Celayir, 2020).

Essentially, continuing the using of traditional management methods under the effect of inertia, represents, more and more, an impediment for the progress in production (Thapayom, 2019). In a new market-oriented management, many research works carried out through the prism of the new vision, by finding cost approaches adapted to the information needs, the target costing method. Regarding this new method with focusing on customer satisfaction, the determination of costs by the target costing method allows a prompt and efficient management organization and a quick and pertinent offer of information needed for the operational management (Phornlaphatrachakorn, 2017).

Target costing management (TCM) is part of a product development process. It initially focuses on the wants and needs of customer segments across targeted competitive markets, as well as the prices they are willing to pay for the product. The firms must specify the margin it required to gain the maximum tenable cost for the product. The margin needs to be sustainable across the product's full predictable lifecycle. TCM covers a full cost of business, it applies to its full value chain. Therefore, at one end of the value chain, customer value has to be expressed the value the product provided for customers. At the other end of the value chain, it has to connect business with its stakeholders to create the value (Chartered Global Management Accountant, 2021). TCM is multidisciplinary, multifunctional and integral to the business model that creates value for customers in order to achieve sustainable competitive advantage of firm.

Sustainable competitive advantages are required for a business to thrive in today's global environment. Value investors search for firms that are bargains. In order to avoid purchasing a value trap one of the factors we search for is sustainable competitive advantages (Thapayom, 2019). Sustainable competitive advantages are business assets, attributes, or abilities that are difficult to duplicate or exceed; and provide a superior or favorable long-term position over competitors. Sustainable competitive advantage is the key to business success. It is the force that enables a business to have greater focus, more sales,

better profit margins, and higher customer and staff retention than competitors. It is the major driver of long-term business value and is what purchasers will place the most value on when looking to acquire a business (Bambang et al., 2021). To achieve competitive advantage, firms need to constantly focus on the identification of differential product strategies, building or reshaping core competencies, acquiring unique technologies, and accumulation of intellectual property, all of which can all be harnessed to make the company successful in a highly competitive marketplace (Srivastava, Franklin & Martinette 2013).

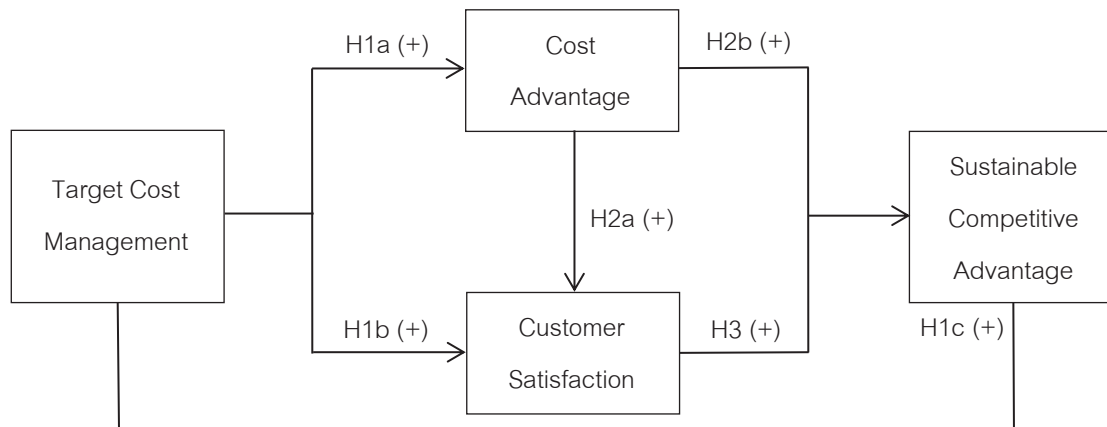
The research was conducted with firms in micro, small and medium-sized enterprises (MSMEs) in Thailand because MSMEs are an important component of the Thai economy. At the end of 2020, there were 776,977 firms (98.21% of all enterprises in the country), a growth rate of 1.17 percent compared to the previous year. In terms of employment, it was found that employment in MSMEs was 11,835,468 people (70.49% of the total employment in the country) (Office of Small and Medium Enterprise Promotion, 2021). From the above statistical data, MSMEs are a key engine and force in driving the economy and it is an important source of employment in the country. In the current situation, production costs continue to rise but the purchasing power of consumers is declining, causing a major impact on business operations. Most firms aim to reduce costs initially but some of them are unable to do that because they do not really know the way and how to manage their own business costs as well as lacking of knowledge of the factors involved in the cost of the business. The consequence is that businesses cannot compete in the current situation. Accordingly, the main objective of this research is to investigate the effects of target cost management on sustainable competitive advantage from MSMEs in Thailand.

## 2. Literature review and hypothesis development

Target cost management has become a valuable method that enhances firms to achieve sustained competitive advantage. In this study, dynamic capability theory is applied to explain the relationships between TCM and its consequences. Theory of dynamic capability emphasizes on a significant source of firms' competitive advantage and performance as their capabilities. These capabilities create, combine, adapt, integrate, and reconfigure skills, resources and abilities to renew capabilities to complete congruence with changing environments (Teece, Pisano & Shuen, 1997). Here, TCM as one source of firms' abilities is valuable, non-imitate, and non-substitute. It is a key factor of driving cost advantage, customer satisfaction, and sustainable competitive advantage. Thus, this research attempts to empirically investigate the aforementioned research relationships. The conceptual model of TCM and its associations is presented in Figure 1. In the model, TCM is the main variable of the research; cost advantage, customer satisfaction, and sustainable competitive advantage are the consequences of the research. Those variables are critically integrated in the same model as follows.

Figure 1

## The Relationship Model between Target Cost Management and Its Consequences



## 2.1 Target Cost Management

Target cost management was originated from the Japanese automobile industry in 1960s and then was successfully introduced to Western companies since 1980s (Feil et al., 2004). Many large firms in Europe and North America have adopted TCM to improve their cost management and consequently increase their competitiveness (Rattary, Lord & Shanahan, 2007). In this research, target cost management refers to a system of profit planning and cost management that is price-led, customer-, design-centered and cross functional (Ansari, Bell & Swenson, 2006). TCM focuses on “what should the product cost” instead of “what does the product cost”, therefore certifying that only profitable products are presented. By designing cost out of products, TCM generates the opportunity for cost planning during the design stage. The core motivation is that after the product development stage most costs have been designed into the product and costs cannot be influenced any more during manufacturing process (Dekker & Smidt, 2003). Here, the cost refers to the costs throughout the whole product life cycle. Earlier cost planning also contributes to an optimal trade-off among quality, cost and functionality by deploying cross-functional teams in the firm (Rattary, Lord & Shanahan, 2007).

The application of TCM is highly beneficial as competition raised fiercer and profits declining, because prices are then increasingly determined by market forces rather than by purely marking up the cost with an appropriate profit (Feil et al., 2004). It can also be beneficial to stakeholders of the value chain, for example distributors and suppliers. Thus, pressures from the market can be passed on to extended firms to inspire their creativity and cost control (Rattary, Lord & Shanahan, 2007). The basic idea of target costing is simple and straightforward. It is gained by deducting the desired profit from the selling price (Target cost = Selling price – Target profit). Nevertheless, the process of TCM is multifaceted and complex. It can be generally broken down into two phases. The establishment phase arises during concept development and product planning stages and comprises 1) understanding customers' requirements and their willingness to pay 2) defining service or product features based on customer

insights and market research 3) creating the selling price specified product's quality and functionality and 4) setting the target profit margin. The achievement phase arises during the design development and production stages (Everaert et al., 2006). This phase deals with activities of cost reduction. The major steps include 1) determining the target cost 2) measuring the preliminary cost based on existing cost factors 3) calculating the cost gap between current cost and target cost 4) designing service or product to close the cost gap 5) releasing the cost-effective design when achieving the target cost and 6) undertaking continuous improvement on cost reduction. The difference between TCM and traditional method of cost management represented in Table 1.

**Table 1** The Difference between TCM and Traditional Method of Cost Management

| Target Cost Management  | Traditional Method of Cost Management  |
|---|--|
| 1 Competitive price is considered as a part of prime cost planning.   | Market price is not considered as a part of prime cost planning                |
| 2 It is sales price that determine costs.   | Costs determine sales price.   |
| 3 Design is an important factor in reducing costs.  | Losses and inefficiency are taken into consideration in order to reduce costs. |
| 4 Customer data is considered as a cost reduction guide.  | Customers are not involved in cost reduction                                   |
| 5 Teamwork and multiple skills are taken into account.  | Teamwork and multiple skills are not taken into account.                       |
| 6 It is an open system and takes into attention the interactive function or the external effect of variables on the system. | Prime cost and some proportion of profit stem from closed system.              |
| 7 Suppliers of material and equipment are involved before designing the product.  | Suppliers of material and equipment are involved after designing the product.  |
| 8 Value engineering is used as a criterion in this system.  | It does not use value engineering.   |

Source: Sharafoddin (2016)

TCM is not a process for calculating the cost, but it is an integrative system for the strategic planning of the companies' costs and profits taking into account the market to determine the competitive price and the customers' requirements so as to identify the product's characteristics and the company's strategic profit (Matarneh & El-Dalabeeh, 2016). The main goal of the usage of TCM is to benefit of a pertinent and rigorous method for the reduction of a new product cost as well as to guarantee the appropriate margin and quality balance. TCM is a procedure of permanent improvement of performances and cost reduction beginning with the product design stage. Additional important goal of the usage of TCM purposes to reduce variances between the target cost and the estimated cost (Ionescu, 2015). Firms' executives to be aware of how to implement, apply and utilize cost management for create decision

making quality and competitive advantage, initiate firm profitability and achieve organizational sustainability (Thapayom, 2021).

TCM plays a key role in the success of the firm. It helps firms to determine the right price and right cost as well as reduce the risk of not making sufficient profit and improves sales prospects, since product development is focused on customer needs and wants, which lead to achieve customer satisfaction (Chartered Global Management Accountant, 2021). Also, Al-hosban, Alsharairi and Al-Tarawneha (2021) argue that firms must hire cost accountant to acquire accurate cost data flow, and it's important for firms to apply new techniques of managerial accounting which reduce costs. Likewise, Baharudin and Jusoh (2015) find that TCM helps firm to achieving the competitive advantage in order to obtain the best value for the product or service to the acceptable level to the customer. TCM helps to avoid time and resources lost in design changes due to over engineering countermeasures to fit the market requirements after the product is introduced to the market (Baharudin & Jusoh, 2020). Correspondingly, Ansari, Bell and Swenson (2006) point out that TCM is a critical tool for firms striving to achieve and maintain a position of true cost competitiveness. Furthermore, TCM is a significant tool in helping businesses offer effective operational strategies in order to achieve competitiveness and sustainability (Phornlaphatrachakorn, 2017). In conclusion, TCM helped address customer requirements and reduce costs. Manager will be able to apply the method as an important tool for competitive advantage if they follow aforementioned principles more diligently (Celayir, 2020). Hence, the associations are hypothesized as follows:

**Hypothesis 1:** Target cost management has a positive effect on (a) cost advantage, (b) customer satisfaction and (c) sustainable competitive advantage.

## 2.2 Cost Advantage

Cost advantage becomes a main strategic outcome of implementing target costing in the competitive markets. Cost advantage refers to the advantages of firms' business operations that arise from a success of cost management compared with their competitors (Santana, 2009). It comprises unit cost of manufacturing, costs of business operations, and expenses of selling and administration. Firms with cost advantage can have lower costs of product ownership, costs of customers, and manufacturing cost commitments than the competitors. Thus, cost advantage is beneficial for firms' competitive and profitability. Cost advantage is when a firm is able to use its skilled workforce, controlled costs, inexpensive raw materials, and efficient operations to generate maximum value to consumers (Maikah, 2015). Cost advantage is a way for firms to generate a competitive advantage. Excelling in cost advantage while remaining competitive puts a firm in a strong position to increase market shares and improve profitability. Furthermore, cost advantage can help firms achieve sustainable competitive advantage through the effectiveness and potentiality of cost position (Wang et al., 2014). Also, If the firm is able to generate an effective cost advantage, the firm will be able to become a low-cost producer, this is characterized by prices that are in line with the buyer's expectations so that the buyer is satisfied with the price. Likewise, the firm is also able to offer high value

benefits to customers despite controlling costs (Pearce & Robinson, 2009). Similarly, Kabir (2016) states that price and value or conformity between price and value of benefits is one of the factors that affect customer satisfaction. Consistent with Gakuya and Mbugua (2018) found that cost advantage had a positive effect on customer loyalty. Hence, the associations are hypothesized as follows:

**Hypothesis 2:** Cost advantage has a positive effect on (a) customer satisfaction and (b) sustainable competitive advantage.

### 2.3 Customer Satisfaction

The market has become higher competitive and firm needs to draw much consideration in keeping customer by building strong relationship due to benefits enjoyed. Customer satisfaction is the second consequence of TCM and it is a great value in understanding customers' perception and evaluation. In this research, customer satisfaction is defined as an evaluation based on a comparison between customers' experiences and their initial expectations (Xu & Li, 2016). It is a key factor of generating competitive advantage and increasing firms' success. Indeed, the benefits associated with customer satisfaction are lower costs related with retaining current customers, rather than constantly recruiting new ones especially within competitive markets (Ehrenberg & Goodhardt, 2013). Consistent with Kyei and Bayoh (2017) pointed out that the cost of serving a loyal customer is five or six times less than a new customer. Customer satisfaction is one of the important factors in modern marketing. If the customers are satisfied with the provided services or goods, the chance that they use the services again increases (Ngari & Bichanga, 2017). Moreover, satisfied customers will most probably talk actively about their buying or the use of a specific service this will lead to positive advertising. In contrast, dissatisfied customers will most probably change to a different product this will lead to negative advertising. Firms have attempted to build customer satisfaction in order to reach sustainable competitiveness. It highlighted identification of customers and their expectations and needs, and measurements of their perceptions. It is a result of how firms can serve products and services to customers are satisfied (Murali, Pugazhendhi & Muralidharan, 2016). Then, a capability of firms to recognize their customers' expectations is needed and it can increase competitive advantage and promote their great success (Ussahawanitchakit, 2017). Hence, customer satisfaction is positively related to firms' competitive advantage.

**Hypothesis 3:** Customer satisfaction has a positive effect on sustainable competitive advantage.

### 2.4 Sustainable Competitive Advantage

Regarding the significant consequence of TCM, which consists of cost advantage and customer satisfaction, these lead to sustainable competitive advantage. Competitive advantage refers to an outcome of effectively using firms' resources and competences in business operations, practices and activities that outperform their competitors (Wang, 2014). Competitive advantage is the consequence of strategy implementation in building, integrating, and configuring several internal and external capabilities of the firm for wealth creation or growth over time (Sitanggang & Absah, 2019). The competitive advantage concept relates to a firm keeping a sustainable edge over competitors in a specific industry setting that cannot be eroded over

time. Sustainable competitive advantage is the main to business success. It is the force that allows a firm to have superior focus, higher customer, more sales, better profit margins, and staff retention than rivals (Teguh et al., 2021). Chaiprasit and Swierczek (2011) point out that sustainable competitive advantage is required for a firm to thrive in today's global environment. A competitive advantage separates a firm from its rivals. It contributes to more customers, higher prices, and brand loyalty. Establishing such an advantage is one of the most significant goals of any firm. Furthermore, Bambang et al. (2021) stated that sustainable competitive advantage is the characteristic that allows a firm to outperform its rivals. Developing a sustainable competitive advantage involves customer loyalty, unique merchandise, a great location, good vendor relations, proper distribution channels, a reputation for customer service, and multiple sources of advantage.

### 3. Methodology

#### 3.1 Sample Selection and Data Collection Procedure

In this research, micro, small and medium-sized enterprises (MSMEs) in Thailand were a population of the research by using accounting executives (chief financial officers, accounting directors or accounting managers) as the key informants, have taken the highest responsibilities of accounting functions and other related activities in an organization. The sample was selected from the online data base of the Office of Small and Medium Enterprise Promotion ([www.sme.go.th](http://www.sme.go.th)). The enterprises were active in the database totaling 776,977 firms. Accordingly, an appropriate sample size is 384 firms under the 95% significance level rule (Krejcie & Morgan, 1970). Based on prior studies, a 20% response rate for a mail survey, without an appropriate follow-up procedure, is deemed sufficient (Aaker, Kumar & Day, 2001). As a result, the questionnaires are directly distributed by random choice to 1,920 MSMEs in Thailand who are selected by a simple random sampling procedure. With regard to the questionnaire mailing, 93 surveys were undeliverable. Deducting the undeliverable from the original 1,920 mailed, the valid mailing was 1,827 surveys, from which 403 responses were received. Due to three found incomplete and with response errors. As a result, completed questionnaires were 400. The effective response rate was approximately 21.89% which was considered suitable for the response rate for a mail survey because it was greater than 20% (Aaker, Kumar & Day, 2001).

#### 3.2 Test of Non-Response Bias

To test non-response bias and to detect and consider possible problems with non-response errors was investigated by t-test that followed to Armstrong and Overton (1977). The researcher was compared early and late responses about firm capital and firm age. The results were not significant between early and late responses. Therefore, it was implied that these received questionnaires showed insignificant non-response bias for the analysis in this research.



### 3.3 Variable Measurement

To measure each construct in the conceptual model, all variables were anchored by five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). In addition, multiple items were considered for measuring each construct. Despite that all constructs are obviously defined, the measurement is impossible for one to directly manifest or observe the scale due to the abstract nature of the construct (Diamantopoulos & Siguaw, 2000). Certainly, variables are estimated scales from their definitions and are applied from related targeting cost management research and other related literatures. Hence, the variable measurements of this research are described as follows:

#### 3.3.1 Dependent Variable

Sustainable competitive advantage is the ending dependent variable in this research. Sustainable competitive advantage refers to an outcome of effectively using firms' resources and competences in business operations, practices and activities that outperform their competitors (Wang, 2014). three-item scale was developed to assess how firms provided comparative positional superiority in the marketplace that leads to outperform their rivals.

Cost advantage refers to the advantages of firms' business operations that arise from a success of cost management compared with their competitors (Santana, 2009). Four-item scale was developed to assess how firms gain the benefits and advantages of their operational costs over the significant competitors and others.

Customer satisfaction refers to an evaluation based on a comparison between customers' experiences and their initial expectations (Xu & Li, 2016). Four-item scale was developed to assess how firms evaluate their overall purchase experiences and predict customers' post-purchase behaviors.

#### 3.3.2 Independent Variables

Target cost management refers to a system of profit planning and cost management that is price-led, customer-, design-centered and cross functional (Ansari, Bell & Swenson, 2006). seven-item scale was developed to assess how firms manage the quality and cost of products, determine product pricing, set engineering activities in manufacturing products, linkage and integrate all activities together starting with product designs to the distribution to the customers, provide the diminishing costs and times of production and transport and the increasing productivity and efficiency, control all activities' costs from materials to finished goods, and advance the understanding and coordination of different enterprises in a cost system through value chain.

### 3.4 Reliability and Validity

In order to confirm the validity and reliability of the research instruments, factor analysis, item-total correlation and cronbach alpha were applied. Firstly, factor analysis was applied to measure the underlying relations 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 & Bernstein, 1994). All factor loadings were more than the 0.40 cut-off and are statistically significant. Next, discriminant power

was utilized to assess the validity of the measurements by item-total correlation. In the scale validity, item-total correlation was more than 0.30 (Churchill, 1979). Finally, the reliability of the measurements was measured by Cronbach alpha coefficients. In the scale reliability, Cronbach alpha coefficients are more than 0.70 (Nunnally & Bernstein, 1994). So, the scales of all measures appeared to produce internally consistent results and these measures were deemed suitable for further analysis as shown in Table 2.

**Table 2** Result of Measure Validation

| Variables                               | Factor Loadings | Item-total correlation | Cronbach's Alpha |
|---|-----------------|------------------------|------------------|
| Target Cost Management (TCM)            | 0.62-0.88       | 0.51-0.80              | 0.87             |
| Cost Advantage (CAD)                    | 0.69-0.83       | 0.49-0.66              | 0.79             |
| Customer Satisfaction (CSA)             | 0.70-0.91       | 0.52-0.79              | 0.84             |
| Sustainable Competitive Advantage (SCO) | 0.79-0.92       | 0.59-0.80              | 0.84             |

### 3.5 Statistical Techniques

The structural equation modeling (SEM) was conducted to examine the relationships among target cost management, cost advantage, customer satisfaction and sustainable competitive advantage. Because all variables in this research were neither nominal data nor categorical data, the SEM is a suitable technique for investigating the hypothesized relations.

## 4. Results and Discussion

In this research, the key informants are the chief accounting executive, who represent the completed questionnaires of this research. The results of demographic characteristics of 400 MSMEs indicate that the majority of firms' respondents has registered as a limited company (85.50 percent) and most of the categories of the firms' respondents are industrial business (76.00 percent). In addition, the majority of the respondents, 43.00 percent have employed more than 20-50 full-time employees. The majority of the firm respondents have operating capital of more than 10,000,000 baht (48.25 percent). Moreover, approximately 35.75 percent of firms' respondents has the length of time in operating 10-15 years.

In Table 3, descriptive statistics and correlation matrix for all variables are presented. To verify the multicollinearity problems of the research, multicollinearity might arise when inter-correlation in each predict variable is more than 0.80, which is a high relationship (Hair et al., 2010). The correlations ranging from 0.49 to 0.62 at the  $p < 0.01$  level, which means that the possible relations of the variables in the conceptual model could be tested.

**Table 3** Descriptive Statistics and Correlation Matrix

| Variables                               | TCM     | CAD     | CSA     | SCO  |
|---|---------|---------|---------|------|
| Mean                                    | 4.34    | 4.33    | 4.41    | 4.34 |
| Standard Deviation                      | 0.47    | 0.53    | 0.45    | 0.55 |
| Target Cost Management (TCM)            | 1       |         |         |      |
| Cost Advantage (CAD)                    | 0.59*** | 1       |         |      |
| Customer Satisfaction (CSA)             | 0.58*** | 0.52*** | 1       |      |
| Sustainable Competitive Advantage (SCO) | 0.62*** | 0.49*** | 0.54*** | 1    |

\*\*\* p &lt; 0.01

The evaluation of SEM of the target cost management-sustainable competitive advantage relationships showed that the Chi-square probability (CMIN-p) level was at 0.000, relative Chi-square (CMIN/DF) at 1.755, goodness of fit index (GFI) at 0.843, and root mean square error of approximation (RMSEA) at 0.044 which still could not pass the criteria of the model as criteria shown in Table 4.

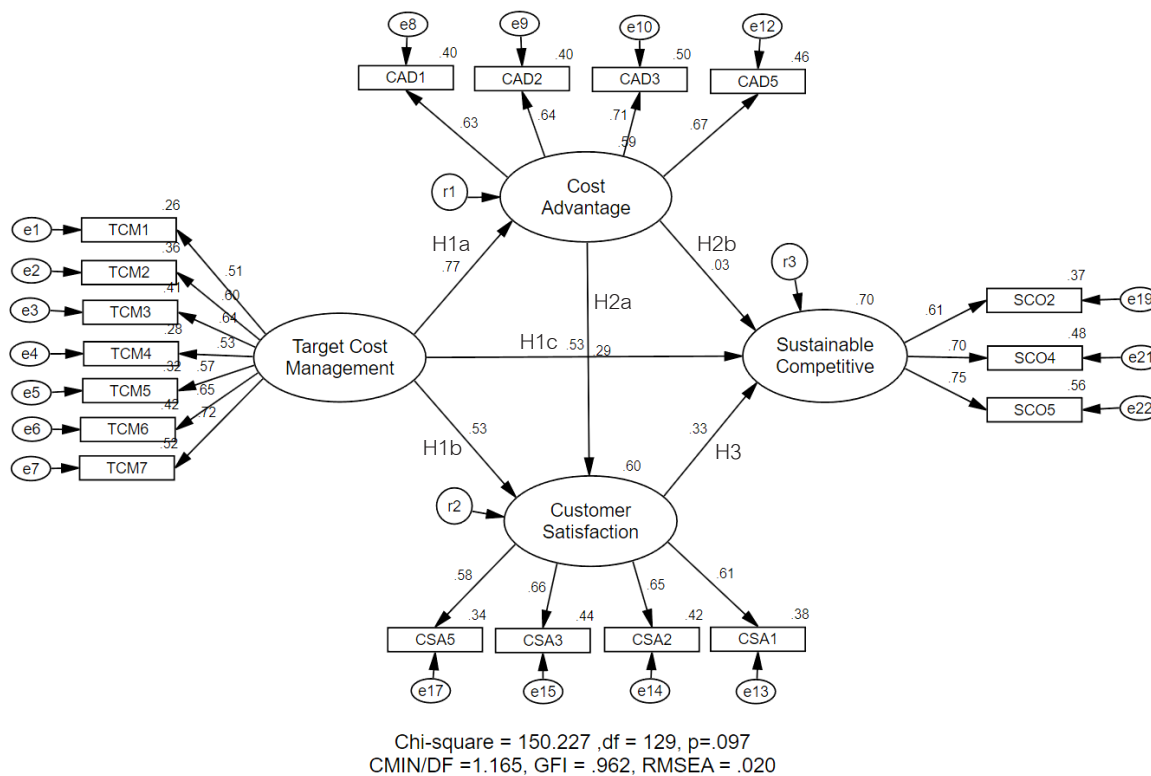
**Table 4** Criteria for Assessing the Empirical of the Model

| Evaluating the Data-Model Fit |         | Criteria     | Results | Reference       |
|-------------------------------|---------|--------------|---------|-----------------|
| 1                             | CMIN-p  | Value > 0.05 | 0.097   | Arbuckle (2016) |
| 2                             | CMIN/DF | Value < 2    | 1.165   | Arbuckle (2016) |
| 3                             | GFI     | Value > 0.90 | 0.962   | Arbuckle (2016) |
| 4                             | RMSEA   | Value < 0.08 | 0.020   | Arbuckle (2016) |

The researcher adjusted the model regarding the modification indices as suggested by Arbuckle (2006) through considering the results of the software with academic theory to exclude some inappropriate observed variables one by one and evaluate the new model. The model has been checked and adjusted until the basic assumptions met. Then, the model, it was found that there were (1) the chi-square probability (CMIN-p) of 0.097 and this was >0.05 indicating a statistical insignificance, (2) the relative chi-squared (CMIN/DF) of 1.165 which was <2, (3) the goodness of fit index (GFI) of 0.962 which was >0.90, and (4) the root mean square error of approximation (RMSEA) of 0.020 which was <0.08 so these all statistical results passed the evaluation criteria. Thus, the structural equation model of the target cost management-sustainable competitive advantage relationships after adjusted perfectly fit the empirical data as shown in Figure 2 and Table 5.

Figure 2

A summary of the target cost management-sustainable competitive advantage relationships



From Figure 2, it was found that the structural equation model after adjusted consisted of four latent variables; (1) one exogenous latent variable which was target cost management, and (2) three endogenous latent variables which were cost advantage, customer satisfaction and sustainable competitive advantage.

**Table 5** Results of Structural Equation Modeling after Adjusted and Hypotheses Testing

| Hypotheses | Relationships | Standardized<br>Regression Weights | p    | Results       |
|------------|---------------|------------------------------------|------|---------------|
| H1a        | TCM ➡ CAD     | 0.77                               | ***  | Supported     |
| H1b        | TCM ➡ CSA     | 0.53                               | ***  | Supported     |
| H1c        | TCM ➡ SCO     | 0.53                               | ***  | Supported     |
| H2a        | CAD ➡ CSA     | 0.29                               | ***  | Supported     |
| H2b        | CAD ➡ SCO     | 0.03                               | 0.81 | Not Supported |
| H3         | CSA ➡ SCO     | 0.33                               | ***  | Supported     |

\*\*\* p < 0.01

In this study, the results indicated that target cost management plays a significant role in determining, driving and explaining cost advantage, customer satisfaction and sustainable competitive advantage. Target cost management has a positive effect on cost advantage (standardized regression weight = 0.77,  $p < 0.01$ ), customer satisfaction (standardized regression weight = 0.53,  $p < 0.01$ ) and sustainable competitive advantage (standardized regression weight = 0.53,  $p < 0.01$ ). In existing literature, target cost management is a potential technique for system of profit planning and cost management that is price-led, customer-, design-centered and cross functional. TCM help firm to accomplishing the competitive advantage in order to obtain the best value for the product or service to a degree acceptable to the customer (Baharudin and Jusoh, 2015). Also, it helps firms to determine the right price and right cost as well as reduce the risk of not making sufficient profit and improves sales prospects, since product development is focused on customer needs and wants lead to achieve customer satisfaction (Chartered Global Management Accountant, 2021). In conclusion, TCM helped address customer requirements and reduce costs in order to increase competitive advantage. **Therefore, Hypotheses 1a, 1b and 1c are supported.**

Secondly, cost advantage had a positive effect on customer satisfaction (standardized regression weight = 0.53,  $p < 0.01$ ). In existing literature, cost advantage the advantages of firms' business operations that arise from a success of cost management compared with their competitors (Santana, 2009). Cost comprises unit cost of manufacturing, costs of business operations, and expenses of selling and administration. Cost advantage is when a firm is able to use its skilled workforce, controlled costs, inexpensive raw materials, and efficient operations to generate maximum value to consumers (Maikah, 2015). Also, If the firm is able to generate an effective cost advantage, the firm will be able to become a low-cost producer, this is characterized by prices that are in line with the buyer's expectations so that the buyer is satisfied with the price. Likewise, the firm is also able to offer high value benefits to customers despite controlling costs (Pearce and Robinson, 2009). **Therefore, Hypothesis 2a is supported.** In contrast, cost advantage had no significant effects on sustainable competitive advantage (standardized regression weight = 0.03,  $p > 0.05$ ) because it has an indirect influence on sustainable competitive advantage via customer satisfaction as a mediator. Hence, firms can provide cost advantage to indirectly achieve their sustainable competitive advantage through a mediating effect of customer satisfaction. **Thus, Hypothesis 2b is not supported.**

Finally, the results found that customer satisfaction has a positive effect on sustainable competitive advantage (standardized regression weight = 0.33,  $p < 0.01$ ). In existing literature, customer satisfaction is an evaluation based on a comparison between customers' experiences and their initial expectations (Xu & Li, 2016). Customer satisfaction is one of the important factors in modern marketing. it is a great value in understanding customers' perception and evaluation. If the customers are satisfied with the provided services or goods, the chance that they use the services again increases (Ngari & Bichanga, 2017). Furthermore, satisfied customers will most probably talk actively about their buying or the use of a

specific service this will lead to positive advertising. In contrast, dissatisfied customers will most probably change to a different product this will lead to negative advertising. Consequently, a competence of firms to recognize their customers' expectations is needed and it can increase competitive advantage and promote their great success (Ussahawanitchakit, 2017). In summary, it is a key factor of generating competitive advantage. *Thus, Hypothesis 3 is supported.*

**Table 6** Results of Direct Effect, Indirect Effect and Total Effect of the Relationship between TCM and Its Consequences after Adjusted

| Variables              | Cost Advantage |    |      | Customer Satisfaction |      |      | Sustainable Competitive Advantage |      |      |
|------------------------|----------------|----|------|-----------------------|------|------|-----------------------------------|------|------|
|                        | DE             | IE | TE   | DE                    | IE   | TE   | DE                                | IE   | TE   |
| Target Cost Management | 0.77           | -  | 0.77 | 0.53                  | 0.22 | 0.75 | 0.53                              | 0.25 | 0.78 |
| Cost Advantage         | -              | -  | -    | 0.29                  | -    | 0.29 | -                                 | 0.10 | 0.10 |
| Customer Satisfaction  | -              | -  | -    | -                     | -    | -    | 0.33                              | -    | 0.33 |

The Results of direct effect, indirect effect and total effect from Table 6 found that target cost management had the highest direct effect on cost advantage, with a standardized regression weight of 0.77. In addition, the results of total effect found that target cost management had the highest total effect on sustainable competitive advantage, with a standardized regression weight of 0.78.

## 5. Contributions and Directions for Future Research

### 5.1 Theoretical contribution

With an empirical verification of the research relationships, this study attempted to conceptualize the consequences of TCM. Cost advantage, customer satisfaction and sustainable competitive advantage were the significant outcomes of applying TCM. This research also confirmed existing literature of dynamic capability theory in which firms implement TCM as a valuable source of their business competitive.

### 5.2 Managerial Contribution

Firms should offer right products at right prices and manage their costs to make profits and survive in today's competitive market. TCM is one of the important approaches developed to achieve this goal. TCM practices guarantee the quality and reliability standards desired by the customer from a product's design phase onwards, while helping enterprises reach the profit margin they prefer. Thus, firms need to implement TCM potentially in order to receive best business outcomes. They need to allocate their valuable resources, competencies, assets, and capabilities in supporting the implementation of TCM in a firm. As well, executives of firms need to search for new techniques, procedures, approach, and methods that can help firms gain a success of TCM in the uncertain competitive markets and environments via

effectiveness, efficiency, quality, and excellence of their practices, operations and activities. To make a valuable approach of TCM, executives of firms need to set vision, policy and leadership linking to a system of TCM by establishing its committee in order to handle responsibilities, duties and functions of managing their costs and expenses efficiently and effectively.

### 5.3 Limitations of the Study and Directions for Future Research

However, to explicitly expand and increase the benefits and advantages of the research and to systematically prove the generalizability of the study, there is still research gap for further studies. Firstly, to verify and expand the research relationships, future research needs to do more literatures relating to the direct effects of cost advantage on sustainable competitive advantage. Secondly, future research is needed to investigate the generalizability of the study by collecting data from other populations and countries especially in the Southeast Asian context. If results of the future research are different from the existing research, the generalizability of the study could not be made. Lastly, future research may apply either partial least squared (PLS) or hierarchical regression analysis to exam the research relations in order to verify the research results and add the contributions of the research.

## 6. Conclusion

Strategic business tool has definitely promoted firms to reach sustainable competitive advantage in the complex competitive markets and environments. In the accounting aspect, TCM that is one of valuable strategic tools improves firms to determine best price strategy for challenging the volatile environments and markets because it is a cost-control tool during product and process design for firms' new product introductions. Consequently, this research purposed the consequences of TCM include cost advantage, customer satisfaction and sustainable competitive advantage. In this research, 400 micro, small and medium-sized enterprises in Thailand were the samples of the study. The results indicated that TCM have a significant positive influence on cost advantage, customer satisfaction and sustainable competitive advantage. Also, cost advantage has a significant positive influence on customer satisfaction. While customer satisfaction has a significant positive influence on sustainable competitive advantage. To potentially expand and increase the existing research of TCM, the re-conceptualization of TCM, the data collection from other populations and countries and the uses of other valid statistical methods should be investigated for further study. Likewise, executives have to pay attention to utilize and manage TCM well in order to achieve superior best business outcomes.

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