Customer Accounting as a Valuable Approach of Strategic Management Accounting: Evidence from Hotel Businesses in Thailand

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ABSTRACT

This study aims at examining the influences of customer accounting on firm performance of hotel businesses in Thailand. To investigate the relationships, 183 hotel businesses in Thailand are the samples of the study. In this study, customer profitability analysis and customer asset management have significant influences on customer relationship and firm performance, but customer lifetime value has no relationships. Also, associations among customer relationship, customer response, customer satisfaction, customer acceptance, and firm performance are strongly important in the study. This study enables firms' executives to be aware of how to implement, apply and utilize customer accounting for creating customer performance, initialing competitive advantage, promoting profitability, and increasing stability, survival and sustainability in the highly and rigorously competitive markets and environments through the valuable allocation of their resources, assets and strategies to customer accounting. Likewise, this study empirically confirms that both customer profitability analysis and customer asset management are the key dimensions of customer accounting, which is consistent with the existing literature and explicitly contributes to theoretical aspect and adds more benefits to the literature.

Keywords: Customer Accounting, Customer Relationship, Customer Response, Customer Satisfaction, Customer Acceptance, Firm Performance

การบัญชีลูกค้าเป็นวิธีการที่มีคุณค่าของการบัญชี เพื่อการจัดการเชิงกลยุทธ์ หลักฐานจากธุรกิจโรงแรมในประเทศไทย

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บทคัดย่อ

การวิจัยนี้มีเป้าหมายเพื่อทดสอบอิทธิพลของการบัญชีลูกค้าที่มีต่อผลการดำเนินงานของกิจการของธุรกิจโรงแรมในประเทศไทย ซึ่งการทดสอบความสัมพันธ์ของการวิจัยนั้น ธุรกิจโรงแรมในประเทศไทย จำนวน 183 ราย เป็นกลุ่มตัวอย่างในการวิจัย ในการวิจัยนี้ การวิเคราะห์ความสามารถในการทำกำไรจากลูกค้าและการจัดการสินทรัพย์ที่เกี่ยวกับลูกค้า มีอิทธิพลที่มีความสำคัญต่อความสัมพันธ์กับลูกค้าและผลการดำเนินงานของกิจการ แต่มูลค่าตลอดช่วงชีวิตของลูกค้าไม่มีความสัมพันธ์ นอกจากนี้ การเชื่อมโยงระหว่างความสัมพันธ์กับลูกค้า การตอบสนองลูกค้า ความพึงพอใจของลูกค้า การยอมรับของลูกค้า และผลการดำเนินงานของกิจการ มีความสำคัญอย่างมากในการวิจัยนี้ การวิจัยนี้ช่วยสนับสนุนให้ผู้บริหารของกิจการตระหนักถึงแนวทางและวิธีการในการประยุกต์ใช้และการใช้ประโยชน์จากการบัญชีลูกค้า เพื่อสร้างสรรค์ผลการดำเนินงานที่ขึ้นเกิดจากลูกค้า ก่อให้เกิดความได้เปรียบทางการแข่งขัน ส่งเสริมให้เกิดความสามารถในการทำกำไร และเพิ่มความมั่นคง ความอยู่รอดและความยั่งยืนในตลาดและสภาพแวดล้อมที่มีการแข่งขันรุนแรงสูง ผ่านการปันส่วนที่มีคุณค่าของทรัพยากร สินทรัพย์ และกลยุทธ์ของกิจการเข้าสู่การบัญชีลูกค้า การวิจัยนี้ยังมีการยืนยันเชิงประจักษ์ว่า ความสามารถในการทำกำไรจากลูกค้าและการจัดการสินทรัพย์ที่เกี่ยวกับลูกค้า เป็นองค์ประกอบหลักของการบัญชีลูกค้า ซึ่งสอดคล้องกับการวิจัยในอดีต และสร้างคุณค่าเชิงทฤษฎีและเพิ่มประโยชน์มากขึ้นในการวิจัยที่เกี่ยวข้อง

คำสำคัญ : การบัญชีลูกค้า ความสัมพันธ์กับลูกค้า การตอบสนองลูกค้า ความพึงพอใจของลูกค้า การยอมรับของลูกค้า และผลการดำเนินงานของกิจการ

1. INTRODUCTION

In increasingly competitive environments, firms have attempted to search for effective strategies and apply them into their business operations and activities in order to successfully deal with these environments and excellently survive and sustain. Thus, valuable and reasonable strategies for pursuing sustainable competitive advantage and achieving best performance are needed. These strategies can occur in any activity, operation or function of organizations, such as marketing, production, human resource, finance, and accounting. In this study, strategic management accounting is one of the valuable and reasonable strategies and it becomes a key determinant of driving firms' competitiveness, performance and success. Firms have utilized it to help compete the rigorous competitive markets and environments. Also, strategic management accounting is the provision and analysis of financial data and information about a business and its competitors' costs and cost structures for use in developing and monitoring the business strategies and those of its competitors in these environments and situations over a number of periods (McManus and Guilding, 2008). Successfully implementing strategic management accounting explicitly encourages firms to gain superior business performance. While strategic management accounting contains several useful methods and approaches, only customer accounting is empirically investigated in this study. Customer accounting represents a particular set of practices within an accounting subset of strategic management accounting. It becomes the challenge of developing new approaches by integrating the marketing-accounting interface in a changed business landscape (Kraus, Hakansson, and Lind, 2015). Thus, customer accounting plays a significant role in assuming more strategic orientation and driving firms' performance.

Customer accounting is defined as the process of identifying, measuring, communicating, and reporting economic information as profit, sales, and present value of earnings relating to a customer or customer group (Guilding and McManus, 2002). It consists of individual customer profit analysis, customer segment profit analysis, lifetime customer profit analysis, and valuations of customers as assets. It provides financial data and information to support the critical relationship between customers and profitability. In the hotel businesses, customer accounting plays an important strategic tool in determining firm performance, especially marketing performance (McManus, 2013). Accordingly, firms with more successful customer accounting implementation tend to achieve greater firm performance. Likewise, customer accounting focuses on the financial measurement relating to customers and their characteristics and behaviors (Inglis, 2008). It presents the costing of product attributes that create value for customers and provide information for objectively making decisions considering a firm's competitiveness and profit position. Thus, firms have paid an attention on how they spend their investments to targeted customers. Moreover, customer accounting explicitly leads to sustainable competitive advantage and superior financial returns via more efficient use of resources and increased value for customers (Holm, Kumar, and Plenborg, 2016). Firms are likely to implement customer accounting in order to gain their great performance. Here, customer accounting consists of three dimensions, including customer profitability analysis, customer lifetime value and customer asset management (Cadez and Guilding, 2008). These dimensions are main constructs of customer accounting in explaining firm performance. Then, customer accounting is a valuable source of sustainable competitive advantage that explicitly generates superior financial performance. Hence, the relationships between customer accounting and firm performance are investigated in this study.

Interestingly, this study aims at examining the effects of customer accounting on firm performance of hotel businesses in Thailand through customer relationship, customer response, customer satisfaction, and customer acceptance as mediating of the study. Customer accounting includes customer profitability analysis, customer lifetime value and customer asset management. The key research question is how customer accounting is related to firm performance. The specific research questions are: (1) How does customer accounting affect customer relationship and firm performance? (2) How does customer relationship lead to customer response, customer satisfaction and customer acceptance? (3) How does customer response influence customer satisfaction, customer acceptance and firm performance? (4) How does customer satisfaction impact firm performance? and (5) How does customer acceptance enhance firm performance? The remainder of this study presents literature reviews, hypotheses development, research methods, results and discussions of the study, and contributions, suggestions for future research, and conclusion of the study.

2. CUSTOMER ACCOUNTING AND HYPOTHESES DEVELOPMENT

Customer accounting has become a valuable approach of strategic performance measurement that enhances firms to achieve sustained competitive advantage and gain superior organizational performance. In this study, dynamic capability theory is applied to explain the relationships between customer accounting its consequences. According to Teece, Pisano and Shuen (1997)'s a study, theory of dynamic capability focuses on an important source of firms' competitive advantage and performance as their capabilities. These capabilities create, adapt, combine, integrate, and reconfigure skills, resources and abilities to renew competencies to achieve congruence with changing environments. Here, customer accounting as one source of firms' capabilities is valuable, rare, non-imitate, and non-substitute. It is a main determinant of driving customer relationship, customer response, customer satisfaction, customer acceptance, and firm performance. Thus, this study attempts to empirically investigate the aforementioned research relationships. In the research model, customer accounting includes customer profitability analysis, customer lifetime value and customer asset management, and its consequences consist of customer relationship, customer response, customer satisfaction, customer acceptance, and firm performance. Figure 1 shows the conceptual model of the customer accounting-firm performance relationships as follows.

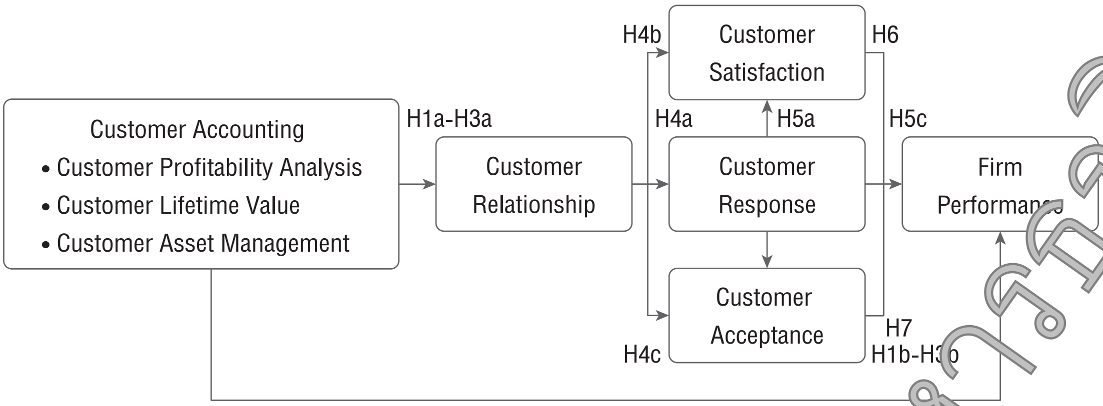

Figure 1: The Relationship Model between Customer Accounting and its Consequences

Customer Profitability Analysis

As mentioned earlier, customer profitability analysis is a key component of customer accounting (Tanima and Bates, 2015) and it is defined as the allocation of revenues and costs to customer segments or individual customers which the profitability of those segments and/or customers can be calculated (Raaij, Vernooij, and Triest, 2003). Firms implement the customer profitability analysis in order to cover opportunities for targeted cost management and profit improvement programs, provide a basis for well-informed pricing decisions, bonus plans and discounts to customers, and open up possibilities for segmentation and target strategies based on cost and profitability. Moreover, customer profitability analysis requires resource allocation decisions in the benefits and the costs of customer acquisition, customer retention and customer interaction (Reinartz, Thomas, and Kumar, 2005). It provides information about the profitability of an individual customer or a group of customers that contributes to firms' financial performance. It is considered to build and nurture profitable relationships with customers. Accordingly, customer profitability analysis becomes a main strategic tool in helping firms build customer relationship and gain sustainable competitiveness and good performance.

Generally, firms need to have a large group of long-term customers because those customers are more willing to pay premium prices for the costs and risks of switching and accept new products through cross-selling (Mark, Niraj, and Dawar, 2012). Firms can generate long-term relationships with customers. Thus, customer profitability analysis enhances firms to create their long-term customers. Also, customer profitability analysis is a technique which assesses the profit yield from market segments by primarily providing management with information that enhances long-term yield decisions (Noone and Griffin, 1999). It examines revenues, costs and profit by individual customer or customer group. It promotes long-term customer-related decisions and creates the greatest returns. Moreover, customer profitability analysis includes the development of reliable customer revenue and customer cost figures, the recognition of future downstream costs of customers, the incorporation of multiple periods into the analysis, and the recognition of different drivers of customer costs (Jacobs, Johnston, and Kotchetova, 2001). It helps firms pinpoint the contribution of each customer to overall profitability. Hence, customer profitability analysis is likely to affect firms' more customer relationship and superior firm performance. Therefore, the research hypotheses are as follows:

H1a: The greater the customer profitability analysis is, the more likely firms will achieve more customer relationship.

H1b: The greater the customer profitability analysis is, the more likely firms will achieve better firm performance.

Customer Lifetime Value

Customer lifetime value represents a potential method that enhances firms to gain and increase long-term performance, success, survival, and sustainability and it is a significant dimension of customer accounting. It is a metric for selecting customers and designing marketing programs and is the present value of the future profit stream expected over a lifetime of transacting with the customers (Haenlein, Kaplan, and Schoder, 2006). Thus, firms with customer lifetime value implementation attempts to serve customers as intangible long-term assets by providing useful strategies in order to deal with customer relationship and receive best performance. Similarly, customer lifetime value is defined as the net present value of all profits derived from the customers (Dreze and Bonfrer, 2009). It is constructed using customer retention rate, revenue per customer, gross margin per transaction or period, remarketing costs, hurdle rate, and discount rate of money. Accordingly, customer acquisition, customer selection, campaign management, customer retention efforts, cross-selling efforts, and resource allocation are applied to use customer lifetime value's measurement facing with the highly competitive environments. Also, customer lifetime value refers to the value of a customer relationship over the course of the relationship lifetime (Ryals, 2008). It is the total lifetime value of a firm's customer base. Then, customer lifetime value is important to predict the firm's long-term performance.

Customer lifetime value means the net present value of the future cash flows attributing to the customer relationship over the lifetime of the relationship (Andon and Baxter, 2011). It involves estimating the revenues and costs over a life-cycle of a customer relationship. It outstanding plays a critical role in identifying the most profitable customers to the firm. Successful customer lifetime value implementation has a positive impact on a great customer relationship and a superior business performance. Firms with customer lifetime value are likely to create customer relationship efficiently and build their performance effectively. Hence, customer lifetime value is attempted to force a customer level metric in order to focus on target profitable customers and optimize marketing resources. It is considered as the best metric to manage profitability from lifetime customers through customer relationship in the long run. Accordingly, customer lifetime value positively affects firms' building customer relationship and influences their increased performance in the competitive markets and environments. Therefore, the research hypotheses are as follows:

H2a: The greater the customer lifetime value is, the more likely firms will achieve more customer relationship.

H2b: The greater the customer lifetime value is, the more likely firms will achieve better firm performance.

Customer Asset Management

Customer asset management is the third dimension of customer accounting and it refers to a comprehensive approach that is concerned with managing customer relationships as assets in order to maximize customer equity through the value sum of a firm's current and potential customers (Persson, 2011). It emphasizes the creation of a comprehensive dynamic customer database, the segmentation of the customer base into homogeneous groups, the forecasting customer value for the various segments, and the allocation of resources to maximize the value of the customer base (Berger et al., 2002). With potentially managing customer assets, firms can explicitly generate long-term profit and shareholder value and continuously increase market share and profitability. Thus, customer asset management becomes a key driver of determining customer relationship and firm performance. Likewise, customer asset management is defined as the value and risk dimensions of the managing customer activities (Senn, Thoma, and Yip, 2013). It focuses on an ability of firms to coordinate value creation and risk management activities relating to customers Firms need to provide complementary resources as know-how and financial means and governing mechanism as engagement, performance indicators and accountabilities to support those activities.

In the existing literature, customers are important intangible assets of a firm that should be valued and managed (Gupta and Lehmann, 2003). Treating customers as assets potentially generates future profits through investment and business actions in the competitive markets. For business activities with customer accounting, firms must actively manage their customer base by protecting and nurturing profitable customers and specially taking care of unprofitable customers by creating profitability or ultimately out of an organization (Sherrell and Collier, 2008). Firms attempt to identify individual capitalized customer value of the expected future net cash flows that accrue to them from those customers. Then, customer accounting explicitly focuses on relationship-building efforts on the most valuable customers. Also, customer accounting refers to the present value of the expected revenues less the cost from a particular customer (Nenonen and Storbacka, 2016). It deals with increasing revenue from customers, decreasing customer-related costs, optimizing asset utilization, and reducing customer-related risks. Thus, customer accounting is important to positively support firms' customer relationship and performance. Therefore, the research hypotheses are as follows:

H3a: The greater the customer asset management is, the more likely firms will achieve more customer relationship.

H3b. The greater the customer asset management is, the more likely firms will achieve better firm performance.

Customer Relationship

Customer relationship is an important outcome of customer accounting via customer profitability analysis, customer lifetime value and customer asset management. It is a combination of business processes that allows firms to better understand different aspects of their customers (Kuo, 2011). It implies continually learning about the customers. More customer relationship helps maximize the value to an organization through customer response, customer satisfaction and customer acceptance. Likewise, customer relationship plays a significant role in creating value for organizations. It explicitly leads to an increase in customer understanding that links to the basis for customer portfolio-based managerial actions on the strategic performance of customers and adjusting the service accordingly (Salojarvi et al., 2015). Firms with great customer relationship can provide sustainable competitive advantage and increase customer-based profit performance. To compete the volatile markets, customer relationship enables firms to create competitive opportunities, strengthen their competitive advantage and enhance customer satisfaction. They tend to have more mindset, values and orientation toward the exchange relationship before and after the sale. Lastly, customer relationship is the process for achieving a continuing dialogue with customers across all available touch points to offer them customer treatment based on their expected response and provide the contribution from each customer to overall maximized performance (Chahal and Kumari, 2011). It requires continuous adjustments to the service offerings to meet the changing needs of customers. Thus, customer relationship is positively related to customer response, customer satisfaction and customer acceptance. Therefore, the research hypotheses are as follows:

H4a: The greater the customer relationship is, the more likely firms will achieve more customer response.

H4b: The greater the customer relationship is, the more likely firms will achieve more customer satisfaction.

H4c: The greater the customer relationship is, the more likely firms will achieve more customer acceptance.

Customer Response

Potentially respond to customer needs becomes a main goal of firms' doing business in the rigorous environments. Customer response is the antecedent of determining and increasing their performance. It is a firm's competence in serving and fulfilling customer needs through effective and quick actions (Jayachandran, Hewett, and Kaufman, 2004). It is a key influence on firms' performance. Firms have attempted to importantly respond to customer needs for the long-term sustainability of their competitive advantage. Also, customer response is the ability of firms to satisfy their customers' needs (Yeoh et al., 2014). Firms with customer response capability can achieve more loyal and sustainable customer base and improve their profitability and performance via customer response expertise and speed. Moreover, customer response refers to the extent to which firms' responses to customer needs are rapid and expert (Chiang, Chen, and Wu, 2015). It is increasingly critical for created market opportunities and sustained success. Thus, the strength and advantage of quick and potential responses encourage firms to gain customer satisfaction and customer productivity and promote firms' performance, survival and sustainability better in the rapidly changing business environments. Therefore, the research hypotheses are as follows.

H5a: The greater the customer response is, the more likely firms will achieve more customer satisfaction.

H5b: The greater the customer response is, the more likely firms will achieve more customer acceptance.

H5c: The greater the customer response is, the more likely firms will achieve better firm performance.

Customer Satisfaction

Significantly, customer satisfaction has a positive influence on firm performance and it is defined as an experience-based assessment made by the customers with their own expectations about characteristics of the overall functionally of fulfilled product purchase and services (Calvo-Porral and Levy-Mangin, 2015). It can be implemented to evaluate their overall purchase experiences and predict customers' post-purchase behaviors. More customer satisfaction tends to affect firms' achieving greater performance in the competitive markets. Also, customer satisfaction is a comparison between customers' expectations of products or services and their perceptions of those products' or services' performance (Haumann et al., 2014). The lowest gap of the comparison can build more satisfactions of the customers. Hence, firms need to work very hard, efficiently and effectively in order to create their customers' satisfaction and gain superior performance. Besides, customer satisfaction is an evaluation based on a comparison between customers' experiences and their initial expectations (Xu and Li, 2016). It plays an important role in enhancing customers' demands and improving firms' performance and profitability.

It becomes a business philosophy that highlights the importance of creating value for customers, anticipating and managing their expectations and demonstrating the ability and responsibility to satisfy their needs (Radojevic, Stanisic, and Stanic, 2015). Thus, customer satisfaction is positively interacted with firm performance. Therefore, the research hypothesis is as follows.

H6: The greater the customer satisfaction is, the more likely firms will achieve better firm performance.

Customer Acceptance

The last consequence of customer relationship, customer acceptance is significant to drive and determine firms' performance and success in the highly competitive markets and environments. More customer acceptance is likely to encourage firms to have greater customer participation, customer credibility and customer loyalty. Then, customer acceptance is a prime determinant of financial and non-financial performance in the competitive markets. Furthermore, the acceptance of customers in business operations, actions and activities enhances firms to succeed, survive and sustain. Customer acceptance is a key factor in driving firms' performance and it presents the strength of a customer's intention to perform a specified behavior through commitment, engagement and association toward products and services of firms (Sultan, Rohm, and Gao, 2009). It includes perceived usefulness, perceived ease of use, trust, and intention to use relating to firms' products and services in the markets. Firms with greater customer acceptance tend to provide more competitive advantage, enhance better performance and profitability and support outstanding survival and sustainability. Thus, customer acceptance has a positive influence on firm performance in the turbulent business situations and circumstances. Therefore, the research hypothesis is as follows.

H7: The greater the customer acceptance is, the more likely firms will achieve better firm performance.

3. RESEARCH METHOD

Data Collection

Data collection was conducted in Thailand. Hotel businesses in Thailand were selected as samples of the study because these businesses have grown very fast and they play significant roles in driving the growth of economy in Thailand. Then, the well understanding of their customers is likely to become a main success factor of business operations in the competitive markets and environments. Also, this study implemented a questionnaire survey as the research tool. The questionnaire surveys via mail procedures were sent to 995 hotel businesses in Thailand by using accounting executives as the key informants. In a mailing process, 93 surveys were undeliverable because some listed firms had moved to unknown locations. Deducting the undeliverable mailing, the valid mailing was 902 surveys, from which 197 responses were received. Of the surveys completed and returned, there are 183 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 20.29% 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, there are two different procedures namely comparison of sample statistics and known values of the population, such as firm age, firm size and firm capital, and a comparison of the first, the second and the third wave data as recommended by Armstrong and Overton (1977) to evaluate the non-response-bias. Here, neither procedure explicitly showed significant differences.

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. For testing the research relationships in this study, item scales of customer profitability analysis, customer lifetime value, customer asset management, customer relationship, customer response, customer satisfaction, customer acceptance, and firm performance are presented. Here, customer profitability analysis is the allocation of revenues and costs to customer segments or individual customers which the profitability of those segments and/or customers can be calculated (Raaij, Vernooij, and Triest, 2003). Four-item scale was developed to assess how firms provide the development of reliable customer revenue and customer cost figures, the recognition of future downstream costs of customers, the incorporation of multiple periods into the analysis, and the recognition of different drivers of customer costs. Also, customer lifetime value is the net present value of the future cash flows attributing to the customer relationship over the lifetime of the relationship (Andon and Baxter, 2011). Four-item scale was introduced to evaluate how firms estimate the revenues and costs over a life-cycle of a customer relationship. Moreover, customer asset management is concerned with managing customer relationships as assets in order to maximize customer equity through the value sum of a firm's current and potential customers (Persson, 2011). Four-item scale was established to measure how firms identify the creation of a comprehensive dynamic customer database, the segmentation of the customer base into homogeneous groups, the forecasting customer value for the various segments, and the allocation of resources to maximize the value of the customer base.

For the consequences of customer accounting, customer relationship is firstly the process for achieving a continuing dialogue with customers across all available touch points to offer them customer treatment based on their expected response and provide the contribution from each customer to overall maximized performance (Chahal and Kumari, 2011). Four-item scale was initialed to gauge how firms provide continuous adjustments to the service offerings to meet the changing needs of customers. Secondly, customer response is a firm's competence in serving and fulfilling customer needs through effective and quick actions (Jayachandran, Hewett, and Kaufman, 2004). Four-item scale was introduced to assess how firms respond to customer needs for the long-term sustainability of their competitive advantage. Thirdly, customer satisfaction is an experience-based assessment made by the customers with their own expectations about characteristics of overall functions in fulfilling product purchase and services (Calvo-Porral and Levy-Mangin, 2015). Four-item scale was presented to investigate how firms evaluate their overall purchase experiences and predict customers' post-purchase behaviors. Fourthly, customer acceptance is the strength of a customer's intention to perform a specified behavior through commitment, engagement and association toward products and services of firms (Sultan, Rohm, and Gao, 2009). Four-item scale was developed to examine how firms achieve perceived usefulness, perceived ease of use, trust, and intention to use firms' products and services in the markets. Lastly, firm performance is the outcome of efficiently and effectively managing firms strategies, operations, activities, and actions. Four-item scale was introduced to assess how firms gain increased sales and market shares, goal achievements, organizational developments, and survival and sustainability.

To investigate the relationships between customer accounting and firm performance, control variables in this study are tested, which include firm age, firm size and firm capital as the control variables of the study. Firm age was measured by the number of years a firm has been in existence. Next, firm size was measured by the number of employees in a firm. Finally, firm capital was measured by the amount of money a firm has invested in doing business.

Research Instrument Tests

To verify a quality of the research tool in this study, factor analysis, item-total correlation and cronbach alpha are implemented. Firstly, 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 are greater than the 0.40 cut-off and are statistically significant. Secondly, discriminant power was used to evaluate the validity of the measurements by item-total correlation. In the scale validity, item-total correlation is greater than 0.30 (Churchill, 1979). Lastly, the reliability of the measurements was assessed by Cronbach alpha coefficients. In the scale reliability, Cronbach alpha coefficients 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.

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 and Mak, 2012). The results of this study are presented in the next section.

Table 1: Results of Measure Validation

Items	Factor Loadings	Item-Total Correlation	Cronbach Alpha
Customer profitability analysis (CPA)	0.70–0.83	0.74–0.81	0.78
Customer lifetime value (CLV)	0.79–0.82	0.78–0.82	0.81
Customer asset management (CAM)	0.81–0.87	0.80–0.87	0.87
Customer relationship (CRS)	0.74–0.88	0.75–0.87	0.81
Customer response (CRP)	0.79–0.85	0.79–0.86	0.85
Customer satisfaction (CSF)	0.82–0.88	0.83–0.87	0.86
Customer acceptance CAP)	0.86–0.91	0.87–0.91	0.91
Firm performance (FPM)	0.82–0.85	0.82–0.85	0.86

4. RESULTS AND DISCUSSION

Table 2: Descriptive Statistics and Correlation Matrix

Variables	CPA	CLV	CAM	CRS	CRP	CSF	CAP	FPM
Mean	4.34	4.19	4.18	4.33	4.15	4.17	4.01	4.03
s.d.	0.48	0.57	0.48	0.49	0.54	0.56	0.63	0.59
CPA								
CLV	0.66***							
CAM	0.61***	0.56***						
CRS	0.52***	0.43***	0.60***					
CRP	0.48***	0.42***	0.57***	0.59***				
CSF	0.44***	0.38***	0.49***	0.48***	0.73***			
CAP	0.43***	0.37***	0.41***	0.44***	0.75***	0.79***		
FPM	0.40***	0.34***	0.38***	0.42***	0.62***	0.61***	0.69***	

*** p < .01

Table 2 shows the descriptive statistics and correlation matrix for all variables. In this study, the range of mean scores for all constructs is 4.01–4.48. Especially, the mean scores for all dimensions of customer accounting, namely customer profitability analysis, customer lifetime value and customer asset management are high, which are 4.34, 4.19 and 4.48 respectively. Accordingly, hotel businesses in Thailand explicitly recognize the importance of customer accounting. Also, a standard deviation value of customer accounting through customer profitability analysis, customer lifetime value and customer asset management is equal to 0.48–0.57. In addition, customer relationship, customer response, customer satisfaction, customer acceptance, and firm performance are main outcomes of customer accounting. The mean scores of these outcomes are 4.33, 4.15, 4.17, 4.01, and 4.03 respectively, while their standard deviation values are 0.49-0.63. They present the high levels of customer accounting's consequences from hotel businesses in Thailand.

Interestingly, multicollinearity might occur 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 0.34 to 0.79 at the $p < 0.05$ level, which means that the possible relationships of the variables in the conceptual model could be tested. Likewise, 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 4.26, well below the cut-off value of 10 as recommended by Neter, Wasserman, and Kutner (1985), means that the independent variables are not correlated with each other. Thus, there are no substantial multicollinearity problems encountered in this study.

Table 3: Results of OLS Multiple Regression Analysisa

Independent Variables	Dependent Variables							
	CRS	FPM	CRP	CSF	CAP	CSF	CAP	FPM
CPA	0.22***	0.19**						
	(0.08)	(0.10)						
CLV	0.03	0.08						
	(0.08)	(0.09)						
CAM	0.43***	0.19**						
	(0.08)	(0.09)						
CRS			0.57***	0.45***	0.41***			
			(0.06)	(0.07)	(0.07)			
CRP						0.82***	0.73***	0.20**
						(0.04)	(0.05)	(0.10)

Table 3: Results of OLS Multiple Regression Analysisa (Cont.)

Independent Variables	Dependent Variables							
	CRS	**FPM**	**CRP**	**CSF**	**CAP**	**CSF**	**CAP**	**FPM**
CSF								0.1[illegible]*
								(0.11)
CAP								0.48***
								(0.09)
FA	–0.03	–0.05	–0.31	0.14	–0.04	0.04	–0.02	–0.03
	(0.06)	(0.07)	(0.06)	(0.06)	(0.07)	(0.04)	(0.05)	(0.05)
FS	0.04	–0.10	0.02	–0.02	–0.07	–0.03	–0.08	–0.10
	(0.12)	(0.14)	(0.13)	(0.14)	(0.14)	(0.09)	(0.10)	(0.11)
FC	0.06	0.12	0.07	0.14**	0.15**	0.08	0.10	0.06
	(0.07)	(0.08)	(0.07)	(0.07)	(0.07)	(0.05)	(0.05)	(0.06)
Adjusted R^2	0.38	0.18	0.34	0.26	0.20	0.67	0.57	0.49

* p < .10, ** p < .05, *** p < .01, a Beta coefficients with standard errors in parenthesis.

Table 3 presents the results of OLS multiple regression analysis of the customer accounting-firm performance relationships. Customer profitability analysis has an important positive influence on customer relationship (b = 0.22, $p = 0.01$) and firm performance (b = 0.19, $p < 0.05$). In the existing literature, customer profitability analysis plays a key role in determining customer relationship and firm performance. It provides information about the profitability of an individual customer or a group of customers that contributes to firms' financial performance and builds and nurtures profitable relationships with customers (Reinartz, Thomas, and Kumar, 2005). Firms with successful customer profitability analysis implementation can explicitly promote their customer relationship and performance. *Therefore, Hypotheses 1a-1b are supported*. Likewise, customer asset management is positively related to customer relationship and firm performance. It has a significant effect on customer relationship (b = 0.43, $p < 0.01$) and firm performance (b = 0.19, $p < 0.05$). It focuses on an ability of firms to coordinate value creation and risk management activities relating to customers (Senn, Thoma & Yip, 2013). Firms critically provide the complementary resources as know-how and financial means and governing mechanism as engagement, performance indicators and accountabilities to support those activities. *Therefore, Hypotheses 3a-3b are supported*. Surprisingly, customer lifetime value has no relationship with customer relationship (b = 0.03, $p < 0.71$) and firm performance (b = 0.08, $p < 0.41$). With the highly competitive markets and environments, customer lifetime value encourages firms to serve customers as intangible long-term assets by providing useful strategies in order to deal with customer relationship and receive best performance through evaluating the net present value of all profits derived from the customers (Dreze and Bonfrer, 2009). It is the total lifetime value of a firm's customer base. While customer lifetime value has definitely focused on the long-term customers, both customer profitability analysis and customer asset management also emphasize the customers as long-term assets and values. Within the short-term aspects, customer lifetime value may not build effective customer relationship and great performance. Thus, the customer profitability analysis and customer asset management positively impact firms' customer relationship and performance, but customer lifetime value does not. *Therefore, Hypotheses 2a-2b are not supported*.

For the consequences of customer accounting, customer relationship is positively interacted with customer response (b = 0.57, $p < 0.01$), customer satisfaction (b = 0.45, $p < 0.01$) and customer acceptance (b = 0.41, $p < 0.01$). It increases customer understanding that links to the basis for customer portfolio-based managerial actions on the strategic performance of customers and adjusting the service accordingly (Salojarvi et al., 2015). It enables firms to create competitive opportunities, strengthen their competitive advantage and enhance customer satisfaction. *Therefore, Hypotheses 4a-4c are supported*. Also, customer response has a critically positive impact on customer satisfaction (b = 0.82, $p < 0.01$), customer acceptance (b = 0.73, $p < 0.01$) and firm performance (b = 0.20, $p < 0.05$). To compete the volatile markets, customer response is the competence of firms in serving and fulfilling customer needs through effective and quick actions (Jayachandran, Hewett, and Kaufman, 2004). Firms with greater customer response can achieve more loyal and sustainable customer base and improve their better profitability and performance via customer response expertise and speed. *Therefore, Hypotheses 5a-5c are supported*. Moreover, customer satisfaction is importantly connected with firm performance (b = 0.18, $p < 0.10$). Consistently, customer satisfaction represents an experience-based assessment made by the customers with their own expectations about characteristics of the overall functionally of fulfilled product purchase and services (Calvo-Porral and Levy-Mangin, 2015). It outstandingly affects their overall purchase experiences and predict customers' post-purchase behaviors. Firms with more customer satisfaction can greater perform in the competitive markets. *Therefore, Hypothesis 6 is supported*. Lastly, customer acceptance has a critical positive relationship with firm performance (b = 0.48, $p < 0.01$). It presents the strength of a customer's intention to perform a specified behavior through commitment, engagement and association toward products and services of firms (Sultan, Rohm, and Gao, 2009). It helps firm gain perceived usefulness, perceived ease of use, trust, and intention to use relating to firms' products and services in the markets. *Therefore, Hypothesis 7 is supported*.

5. CONTRINUTIONS AND DIRECTIONS FOR FUTURE RESEARCH

Theoretical Contribution and Directions for Future Research

This study empirically confirms that both customer profitability analysis and customer asset management are the key dimensions of customer accounting, which is consistent with the existing theory and literature, especially dynamic capability theory. They could play important roles in explaining good business outcomes. However, only customer lifetime value has no effect on its consequences. To increase and expand the research results, future research may need to explicitly search for more literature in order to reconceptualize the relationship model and explain better why customer lifetime value does not play any role in determining its outcomes. Furthermore, 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. Likewise, future research may apply either partial least squared (PLS) or structural equation model (SEM) to test the research relationships in order to verify the research results and add the contributions of the study.

Managerial Contribution

Using the benefits from this study, firms' executives need to be aware of how to implement, apply and utilize customer accounting for creating customer performance, initialing competitive advantage, promoting profitability, and enabling stability, survival and sustainability in the highly and rigorously competitive markets and environments. Accordingly, they need to pay more attention to the valuable allocation of their resources, assets and strategies for customer accounting because more successful customer accounting implementation definitely affects their greater sustainable competitiveness and better long-term performance. Thus, firms could use customer accounting as a strategic tool in order to gain sustain competitive advantage and achieve superior performance. Hence, customer accounting 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

Customer accounting explicitly integrates concepts from accounting and marketing disciplines in both academicians and practitioners. It has become a strategic valuable approach for enabling firms to gain competitive advantage and superior performance and for achieving their goals, survival and sustainability. Thus, this study has attempted to investigate the effects of customer accounting on firm performance of hotel businesses in Thailand. Customer accounting includes customer profitability analysis, customer lifetime value and customer asset management, and its consequences consist of customer relationship, customer response, customer satisfaction, customer acceptance, and firm performance. Accordingly, 183 hotel businesses in Thailand are the samples of the study. With the empirical research results, both customer profitability analysis and customer asset management play significant positive roles in driving and determining customer relationship and firm performance, only customer lifetime value does not. For the relationships among customer relationship, customer response, customer satisfaction, customer acceptance, and firm performance, the results pinpoint that there are important positive relationships among those variables in the research model. Thus, customer accounting is key to enhance firms to succeed, survival and sustain in the current situation and in the future. To explicitly verify the customer accounting-firm performance relationships, future research needs to reconceptualize customer accounting and its consequences and collect more data and/or larger number of samples and different samples in order to increase and expand the benefits and advantages of customer accounting and it relationships.

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