

The Usage and Perceived Merit of Customer Accounting in Enterprises of Vietnam

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ABSTRACT: This study aims to evaluate both the usage rate and the perceived merit of customer accounting as a management tool and test hypotheses related to market-oriented factors and competition intensity, which can affect the usage and the perceived merit of its. The research was conducted by surveying 324 Vietnamese enterprises. By descriptive and reliability statistics, exploratory factor analysis, correlation analysis, multivariate regression analysis, and group comparison from SPSS 22 software, the main findings show that: There is a relationship between the customer accounting usage rate and the perceived merit of customer accounting with competition intensity and market orientation. Specifically, the rate of using customer accounting will be higher in enterprises with a high degree of competition and enterprises with high market orientation; The perceived merit of customer accounting will be higher in businesses with a high degree of competition intensity and businesses with high market orientation. The research results are the basis for recommendations on improving the customer accounting usage rate and the perceived merit of customer accounting to serve decision-making for managers.

KEYWORDS: customer accounting, the usage of customer accounting, the perceived merit of customer accounting.

1. INTRODUCTION

Customer accounting is the subject of both practical and academic interest (Foster and Gupta, 1994; Foster et al., 1996). Customer accounting is a customer-focused method that includes all accounting techniques for estimating profits, sales, or the present value of income to a customer or group of customers and is used in strategic management accounting (Guilding and McManus, 2002). This issue has received more attention as the need for management accounting information is increasing to provide strategic direction (Cadez and Guilding, 2008).

Many previous papers have mentioned customer accounting under many aspects such as a focus on the long-term value of customers (Mulhern, 1999; Libai, Narayandas, and Humby, 2002); customer loyalty (Reinartz and Kumar, 2002); customer relationship management (Ryals, 2002); customer profitability analysis (Foster et al., 1996; Smith and Dikolli, 1995). Research by Guilding and McManus (2002), surveying 300 Australian companies, shows that there are several uses of client accounting techniques, however, the perceived value of these methods outweighs the use of these techniques. Guilding and McManus (2002) found associations between customer accounting and market orientation and the level of competition intensity. Lord et al., (2007) conducted the same study as Guilding and McManus (2002) in New Zealand firms. Research results show that the use and management efficiency of customer accountants in New Zealand is lower than in the Australian study.

A study conducted in Jordan on the relationship between the use of customer accounting information and business performance by Al-Mawali et al. (2012), showed that profit analysis by customers and business size are important factors affecting the business results of enterprises. Helgesen et al (2018) conducted a survey of the 437 largest companies in Norway on the relationship between customer accounting practices and corporate performance. The survey results show that there is a positive relationship between the implementation of customer accounting and business results.

Thus, customer accounting is being applied in many businesses around the world and the use of customer accounting in enterprises has important implications for business results. It is necessary to evaluate the level of use of customer accounting techniques by Vietnamese enterprises, as well as be aware of the role of customer accountants. Therefore, this study aims to solve the following issues: (i) the status of using techniques of client accounting; (ii) assessing the value of client accounting as a management tool; (iii) test hypotheses regarding potential factors that may affect the use and perceived value of client accountants.

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2. LITERATURE REVIEW AND RESEARCH MODEL

2.1. Literature Review

Guiding và McManus (2002) stated that they had founded the following five customer accounting techniques: (1) customer profitability analysis; (2) customer segment profitability analysis; (3) lifetime customer profitability analysis; (4) valuation of the customer as assets; (5) customer accounting (the holistic notion). In more recent studies in the area of customer accounting (such as that of Cadez, 2006; Cadez and Guiding, 2008) customer accounting has been restructured to include three dimensions: customer profitability analysis, lifetime customer profitability analysis, and valuation of customers as assets). This study will concentrate on the information generated by the customer-focused techniques (5 techniques) identified in the study by Guiding and McManus (2002).

The customer accounting techniques:

Customer profitability analysis (CPA): Customer profitability analysis is the calculation of costs and revenues per customer (Bellis Jones, 1989). According to Bellis Jones (1989), this is a technique for measuring customer profitability and can be used as a tool in a customer-focused strategy. Customer profitability analysis is widely known in the management accounting literature (Smith, 1993).

Customer segment profitability analysis: This technique provides management information about the profitability of customer groups (Guiding and McManus, 2002). Instead of identifying profit as each customer, Customer segment profitability analysis focuses on each customer group. This technique is suitable for businesses with a large number of customers.

Lifetime customer profitability analysis: Dwyer (1989) shows that customer lifecycle profit is the present value of expected profit minus the costs incurred related to the customer. Lifetime customer profitability analysis enables an organization to find out which customers are more profitable in the long-life term, so that customer relationship can be changed or controlled to increase the organization's profitability (Smith, 1993). According to Guiding and McManus (2002), lifetime customer profitability analysis is an advanced technique of customer profitability analysis. Through customer lifecycle profitability analysis, the financial outcome of the relationship between a business and a customer can be determined.

Valuation of customer or customer groups as assets: The technique of evaluating customers or customer groups as assets is a tool to calculate the value of customers to the business (Cadez and Guiding, 2008). Gupta and Lehmann (2003) argue that classifying customers or customer groups as assets is considering customers in the value of the business and customer assets bring high value as a condition for the success of the business.

Customer accounting (the holistic notion): McManus (2013) states that total customer information engineering is the process of identifying, measuring, and providing information related to a customer or customer group. The overall value of the customer is illustrated by the conversion between the benefits of providing the product and the costs incurred to acquire the product. This technique comprehensively assesses the revenue, profit, and the present value of earnings associated with a customer or group of customers (Guiding and McManus, 2002).

Relationship between customer accounting and market orientation

According to Guiding et al. (2001), customer accounting can identify the most profitable customers, from which businesses find approaches to target these customers. Van Raaij et al. (2003) found that when the business has an understanding of the customer's profit, it will have an impact on the strategies and actions of the business, from which managers make good decisions, especially decisions related to market orientation. Connolly and Ashworth (1994) point out that market-oriented businesses recognize the need to focus on customer profitability. Although customer accounting shows that the customer is not making a profit, it does not mean that the customer is eliminated (Smith and Dikolli, 1995; Van Raaij et al., 2008). The effectiveness of customer removal needs to be considered not only in the short term but also in determining long-term customer benefits. Many businesses have identified customers as important intangible assets (Connolly and Ashworth, 1994; Wayland and Cole, 1994), and in assessing customer value, overall customer information will inform market orientation and overall value creation of a business.

Slater and Narver (1994), find that market orientation increases customer value because a market-oriented firm will have a comprehensive understanding of the business from its customers and perceptions. customer value. Therefore, measuring customer value becomes important for market orientation. Guiding and McManus (2002) found some support for the use and perceived value of customer accounting in highly market-oriented firms.

The relationship between customer accounting and competition intensity

Lifetime customer profitability analysis is an analysis of the potential costs and potential revenue that a customer will generate over the lifetime of the customer and is a form of discounted cash flow analysis (Andon, Baxter, and Bradley, 2003). Businesses recognize the fact that not all customers are equal in many activities, so information about lifetime customer profitability is essential to make your business competitive.

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For some businesses, a small percentage of customers contribute a large percentage of profits, and conversely, a large percentage of customers contribute a small percentage of profits (Shapiro et al., 1987). Mulhern (1999) recommends that businesses analyzing a new customer should not pay more than the customer's lifetime profitability. In case, enterprises misjudge the profits of new customers will reduce their competitiveness.

Faced with intense competition and rapid technological change, many firms have aimed to carry better customer value (Day, 1994; Gale and Wood, 1994; Woodruff, 1997). Carrying better customer value is now perceived as one of the greatest critical elements for the success of any firm in the present as well as in the future (Wang et al. associates, 2004).

2.2 Research model

From the above theoretical basis, the research model is proposed to evaluate the usage rate of customer accounting, to evaluate the perceived value of customer accounting as a management tool, and to test the hypotheses. Regarding the potential factors affecting the usage and perceived merit of customer accounting, the authors propose the research model in Figure 1

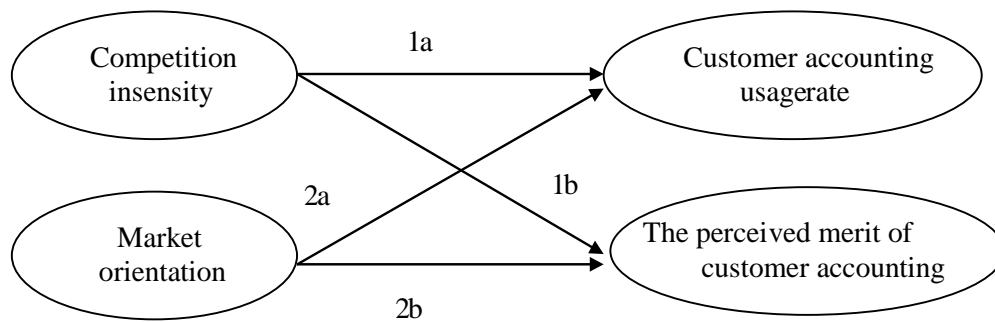


Figure 1. The proposed research model

Inheriting from previous theoretical studies, the hypotheses we propose are:

H1a: Customer accounting usage rates will be higher in enterprises experiencing high levels of competition intensity.

H1b: The perceived merit of customer accounting will be greater in companies experiencing high levels of competition intensity.

H2a: Customer accounting usage rates will be higher in enterprises with high market orientation.

H2b: The perceived merit of customer accounting will be higher in enterprises with high market orientation.

3. RESEARCH METHOD

Implementation process

The implementation stages from data collection and processing to analysis are as follows:

Step 1: Based on the proposed research model, we build a questionnaire on google forms, send it to accountants and business managers via email by convenient sampling method and send it to friends, relatives, and partners. ...

Step 2: Collected data includes 332 votes. After coding and cleaning the data, 324 valid votes were obtained to perform the analysis.

Step 3: We analyzed the data on SPSS 22 software with the following tools: (1) Checking the reliability of the scale using Cronbach's Alpha; (2) EFA exploratory factor analysis; (4) Correlation analysis; (4) Regression analysis.

Research scale

The scales of this study are inherited by Guilding and McManus (2002). Details of the scales are shown in Table 1:

Table 1. Scale description table

No	Factor	Code	No. Variables
1	Competition intensity	COM	05
2	Market orientation	MOR	04
3	Customer accounting usage rates	CAI	05
4	The perceived merit of customer accounting	CAU	05

Competition intensity: including Sales and distribution; Quality and variety of products; Price; Market share; and Customer Service. Apply the 5-level Likert scale: 1- Very poor; 2 - Poor, 3 - Average, 4 - Higher than your opponent, 5- Outperform your opponent.

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Market orientation: including businesses with a deep understanding of their customers; The functions in the enterprise have close coordination with each other to add value for customers; Managers in enterprises think about meeting the needs of specific markets for longterm development goals and potential profits; and enterprises with clear market orientation. Apply the 5-point Likert scale: 1- Strongly disagree; 2 - Disagree, 3 - Normal, 4 - Agree, 5- Strongly Agree.

Customer accounting usage rates (detailed in Table 3) using the 5-level Likert scale: 1- Never; 2 - Rarely, 3 - Occasionally, 4 - Frequently, 5- Very often.

The perceived merit of customer accounting (detailed in Table 4) using a 5-level Likert scale: 1- Very unhelpful; 2 - Not useful, 3 - Normal, 4 - Useful, 5- Very helpful.

RESEARCH SAMPLE

In terms of the size of surveyed enterprises, there are 126 small and medium enterprises with less than 100 employees (equivalent to 38.9%), 120 large enterprises with 100-200 employees (37%), and 78 large enterprises with over 200 employees (24.1%). In terms of ownership, 277 enterprises are private enterprises (equivalent to 85.5%), 31 enterprises are stateowned enterprises (9.6%), and 16 enterprises are non-profit units (4.9%). In terms of field, 197 enterprises operate in the field of trade and services (equivalent to 61%), 93 enterprises in manufacturing (28.7%), 11 enterprises operate in the field of construction (3.4%), 15 enterprises operate in the field of information technology (equivalent to 4.6%), and 8 enterprises operating in other fields (2%).

Table 2. Characteristics of surveyed enterprises

Characteristics		N = 324	Percentage (%)
Number of employees	< 100 persons	126	38.9
	100 - 200 persons	120	37.0
	> 200 persons	78	24.1
Age of Enterprise	< 5 years	67	20.7
	5 - 10 years	170	52.5
	Trên 10 years	87	26.9
Type of Ownership	Private units	277	85.5
	State-owned units	31	9.6
Fields	Non-profit units	16	4.9
	Manufacturing	93	28.7
	Construction	11	3.4
	Trade and services	197	61
	Information technology	15	4.6
	Other	8	2
	Total	324	100

4. RESULTS

Statistics for the usage rates of the five customer accounting practices

The statistics for customer accounting usage rates are considered under 5 techniques used: Analysis of profit by each customer, analysis of profit by a group of customers, and analysis of profit by customer life cycle. , customer or customer group valuations such as assets, and overall customer accounting information.

Table 3. Descriptive Statistics for Customer Accounting Usage Rates

Customer Accounting Usage Rates	Cod	Mean	Percentage (%)					Frequently & Very often S4&S5
			Never S1	Rarely S2	Occasionally S3	Frequently S4	Very often S5	
1.1. Customer profitability analysis	CAI1	3.70	2.5	6.2	23.5	54.6	13.3	67.9
1.2. Customer segment	CAI2	3.88	1.5	2.2	19.8	59.6	17.0	76.5

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profitability analysis									
1.3.Lifetime customer profitability analysis	CAI3	3.46	5.6	11.4	27.2	43.5	12.3	55.9	
1.4. Valuation of customers or customer groups as assets	CAI4	3.59	5.2	8.6	21.9	50.0	14.2	64.2	
1.5.Customer accounting	CAI5	3.90	1.9	4.0	17.0	57.1	20.1	77.2	

Table 3 shows the descriptive statistics for customer accounting usage rates. All enterprises reached the level of agreement on the usage of customer accounting information (average value 3.46 to 3.9). Enterprises using Customer accounting reached the highest level (77.2%) and the Lifetime customer profitability analysis used by businesses accounted for the lowest percentage of consent (55.9%).

Table 4. Descriptive Statistics for the Perceived Merit of Customer Accounting

The Perceived Merit of Customer Accounting	Cod	Mean	Percentage (%)					
			Very unhelpful	Not useful	Normal	Useful	Very helpful	Useful & Very helpful
			S1	S2	S3	S4	S5	S4&S5
2.1. Customer profitability analysis	CAU1	3.97	1.2	1.9	17.0	59.0	21.0	79.9
2.2. Customer segment profitability analysis	CAU2	4.08	1.5	.6	11.7	60.5	25.6	86.1
2.3. Lifetime customer profitability analysis	CAU3	3.80	1.2	1.9	29.0	51.5	16.4	67.9
2.4. Valuation of customers or customer groups as assets	CAU4	3.84	2.2	4.3	21.3	51.9	20.4	72.2
2.5. Customer accounting	CAU5	4.05	1.9	.6	14.8	56.5	26.2	82.7

Table 4 shows the descriptive statistics for the perceived merit of customer accounting with relatively equal opinions and at the very highest level of agreement (average value from 3.80 to 4.08), in which, customer segment profitability analysis and customer accounting are the two techniques that businesses feel bring the most useful information (accounting for the agreement rate of 82.7% and 86.1%). Lifetime customer profitability analysis was rated as having the lowest information usefulness (67.9%).

Evaluate the reliability of the scale

Evaluate the reliability of the scales using Cronbach's Alpha reliability coefficient to reflect the close correlation between the observed variables in the same factor. All factors ensure Cronbach's Alpha reliability of 0.6 or more (Hair et al., 2010), therefore, the observations in each scale are suitable to perform exploratory factor analysis.

Table 5. Reliability Statistics

Groups	Cronbach's Alpha	N of Items
1. Competition intensity (COM)	0.846	5
2. Market orientation (MOR)	0.912	4
3. Customer accounting usage rates (CAI)	0.845	5
4. The perceived merit of customer accounting (CAU)	0.88	5

Exploratory factor analysis

Consider exploratory factors to assess the convergence and distinction of groups of factors, reaffirming the structure of the scales. KMO and Bartlett's test results show that Sig. = 0.000 < 0.05; high KMO coefficient (0.867 > 0.5). This result indicates that the observed variables in the population are correlated with each other and the exploratory factor analysis is very appropriate. Eigenvalues greater than 1, with 04 factors and extracted variance of 69.396% (greater than 50%) are satisfactory.

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The results of exploratory factor analysis (Table 6) show that the observed variables combine into 04 factors, in which, the group's observed variables of competition intensity from the original 05 variables are only 03 variables (variable type COM2 and COM5).

Table 6. Rotated Component Matrix^a

	Component			
	1	2	3	4
CAI1			.756	
CAI2			.752	
CAI3			.809	
CAI4			.748	
CAI5			.661	
CAU1		.741		
CAU2		.752		
CAU3		.772		
CAU4		.776		
CAU5		.814		
COM1				.652
COM3				.826
COM4				.805
MOR1	.821			
MOR2	.820			
MOR3	.847			
MOR4	.824			

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 5 iterations.

Correlation analysis

The matrix of Pearson correlations for the use of 5 customer accounting techniques and the competitive intensity and market orientation is presented in Table 7. The results of the correlation analysis found relationships. There is statistical significance for the positive correlation between 5 customer accounting techniques with market orientation and competition intensity ($\text{sig} < 0.05$). Regarding market orientation, the strongest relationship is between market orientation MOR and CAI2 ($r = 0.420$); between MOR and CAI1 ($r = 0.415$), between MOR and CAI5 ($r = 0.339$). On the other hand, MOR has a low correlation with CAI3 (Lifetime customer profitability analysis) and CAI4 (Valuation of customers or customer groups as assets). Regarding the competition intensity, the correlation coefficients of customer accounting techniques are quite similar (r from 0.217 to 0.31). The highest correlation coefficient is between COM and CAI1 and CAI 2. Similar to MOR, the correlation between COM and CAI3, CAI 4 is also low.

Table 7. Correlation of the usage of customer accounting

	CAI1	CAI2	CAI3	CAI4	CAI5	MOR
CAI2	.716**					
CAI3	.550**	.526**				
CAI4	.470**	.478**	.600**			
CAI5	.465**	.553**	.487**	.482**		
MOR	.415**	.420**	.182**	.219**	.339**	
COM	.310**	.308**	.243**	.217**	.286**	.491**

** . Correlation is significant at the 0.01 level (2-tailed).

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Table 8 presents the Pearson correlation matrix between the perceived usefulness of customer accounting information and competitive intensity and market orientation. The correlations between the perceived merit of 5 customer accounting techniques are statistically significant in this study and are positive (sig < 0.05). Regarding market orientation, the highest correlation was between MOR and CAU2 (r = 0.414), and CAU5 (r = 0.405), while between MOR and CAU3 and CAU4 was the lowest, similar to the correlation of information usage. customer accounting information. Regarding the intensity of competition, the coefficients are quite similar (r=0.304 to 0.345), in which, the highest correlation is between COM and CAU4 (r = 0.345) and the lowest correlation is between COM and CAU2 (r = 0.304).

Table 8. Correlation of the perceived merit of customer accounting

	<u>CAU1</u>	<u>CAU2</u>	<u>CAU3</u>	<u>CAU4</u>	<u>CAU5</u>	<u>MOR</u>
CAU2	.626**					
CAU3	.589**	.521**				
CAU4	.558**	.526**	.653**			
CAU5	.592**	.650**	.603**	.643**		
MOR	.388**	.414**	.219**	.294**	.405**	
COM	.339**	.304**	.313**	.345**	.305**	.491**

** . Correlation is significant at the 0.01 level (2-tailed).

Multivariate regression analysis

The results of the regression analysis according to the stepwise selection method are presented in Table 9, the regression results show the degree of impact of the factors, the competition intensity, and the market orientation of enterprises on the customer accounting usage rate and the perceived merit of customer accounting are statistically significant (Sig. < 0.05). The Tolerance coefficients of the independent variables are all greater than 0.1 and the VIF coefficients of the independent variables are all less than 2, so it can be confirmed that the model does not have multicollinearity.

The linear regression model reflects the impact of the following factors:

$$CAI = 1.413 + 0.354 * MOR + 0.238 * COM$$

$$CAU = 1.659 + 0.328 * MOR + 0.265 * COM$$

Table 9. Regression analysis

Model	Unstandardized Coefficients			t	Sig.	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
A. Dependent Variable: CAI							
(Constant)		.413	.354	.277	5.099	.000	
1 MOR				.072	4.935	.000	.759
COM		.238		.069	3.436	.001	.759
							1.318
							1.318
B. Dependent Variable: CAU							
(Constant)		.659	.328	.244	6.794	.000	
1 MOR				.063	5.189	.000	.759
COM		.265		.061	4.354	.000	.759
							1.318
							1.318

5. DISCUSSION AND CONCLUSION

Firstly, customer accounting usage rates will be higher in enterprises experiencing a high level of competition intensity. Research results have shown that there is a wide range of use of 5 customer accounting techniques in businesses with a high level of competition intensity. The most commonly used techniques are customer profitability analysis and customer segment profitability analysis. Valuation of customers or customer groups as assets have not been used much, possibly because the identification is still complicated, so the information for managers has not mentioned this issue in Vietnamese enterprises.

Second, the perceived merit of customer accounting will be greater in companies experiencing high of competition intensity. The study has found statistically significant relationships between the regression equation of perceived merit of customer accounting and competition intensity. The higher the competition intensity, the more business managers perceive the merit of customer accounting. The perceived merit of customer accounting is most related to the competition intensity by the valuation of customers or customer groups as assets technique. However, this assessment shows the desire to provide information, which contradicts the reality of providing information when this content has not been widely implemented in Vietnamese enterprises.

Third, customer accounting usage rates will be higher in enterprises with high market orientation. There is a relationship between market orientation and the usage of customer accounting that is significant. For enterprises with high market orientation, the usage of customer accounting to provide information will also be higher than other enterprises. Similar to the level of competition intensity, businesses with high market orientation will use a lot of information on customer profitability analysis and customer segment profitability analysis.

Fourth, the perceived merit of customer accounting will be higher in enterprises with high market orientation. Market orientation increases customer value. Along with the high utilization rate, the perceived merit of customer accounting is also higher in enterprises with high market orientation. The perceived merit of customer accounting is related to market orientation, which is most appreciated by a valuation of customers or customer groups as assets technique. This is similar to the level of competition intensity. Businesses want to use information about the valuation of customers or customer groups as assets to serve better decision-making.

The study has acknowledged that there is a relationship between the rate of usage of customer accounting and the perceived merit of customer accounting with the competitive intensity and market orientation. These results are consistent with the research of Guilding and McManus (2002) when the scale value is achieved at the average level of the 7-level Likert scale. Research by Slater and Narver (1994) also clarifies the impact of market orientation on increasing the perceived merit of customer accounting. This research result is also consistent with Lindsay (1994) when some customer accounting information still has low usage (valuation of customers or customer groups as assets). In addition to this factor, many other factors such as competitive strategy, environmental uncertainty, company size, and industry size can also be studied to understand the usage as well as the perceived merit of customer accounting in the enterprise. Especially the competitive strategic factor, whether the enterprise chooses a leading strategy in terms of quality or a customer-friendly strategy, or a strategy to make a difference has the potential to affect the usage as well as the perceived merit of customer accounting.

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