


**CUSTOMERS ACCOUNTING USAGE AND ORGANIZATIONAL PERFORMANCE: THE MEDIATING ROLE OF CUSTOMERS ACCOUNTING**

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p><b>Received</b> 10 March 2023</p> <p><b>Accepted</b> 09 June 2023</p>	<p><b>Purpose:</b> The study aims to examine the mediating role of customer accounting information used in the relationship between the intensity of competition, marketing orientation, customer accounting, and operational performance in the case of Vietnamese enterprises.</p>
<p><b>Keywords:</b></p> <p>Customer Accounting; Intensity of Competition; Marketing Orientation; Operational Performance.</p>	<p><b>Theoretical framework:</b> The research model is inherited from Guilding and McManus (2002), Gupta and Lehmann (2003), and Pfeifer et al. (2005) about the usefulness of customer accounting information to business operational performance.</p>
	<p><b>Design/methodology/approach:</b> The data were collected by using a questionnaire sent to Vietnamese accountants and business managers by email. 324 valid questionnaires were analyzed in this study. The data were analyzed using the structural equation model (SEM).</p>
	<p><b>Findings:</b> The results have shown a positive impact between market orientation and the competitive intensity of enterprises on the use of customer accounting information. The research also indicates that customer accounting information and the perceived benefits of using customer accounting information can support the development of business strategies to help enterprises achieve outstanding efficiency.</p>
	<p><b>Research, Practical &amp; Social Implications:</b> The research evaluated the impact of the use of customer accounting on the performance of companies with the intermediary role of customer accountants with the intensity of competition, market orientation, and the performance of enterprises. Based on the results, some solutions are proposed to apply customer accounting in Vietnamese enterprises to improve operational performance.</p>
	<p><b>Originality/value:</b> The originality of this research is the role model of customer accounting information used as a mediator of the influence of customer accounting information usage on organizational performance. These findings can be helpful for Vietnamese enterprises to use customer accounting information to improve their business performance.</p>
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**USO DA CONTABILIDADE DE CLIENTES E DESEMPENHO ORGANIZACIONAL: O PAPEL MEDIADOR DA CONTABILIDADE DE CLIENTES**

**RESUMO**

**Objetivo:** O estudo tem como objetivo examinar a função mediadora das informações contábeis dos clientes utilizadas na relação entre a intensidade da concorrência, a orientação de marketing, a contabilidade dos clientes e o desempenho operacional no caso das empresas vietnamitas.

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**Estrutura teórica:** O modelo de pesquisa é herdado de Guilding e McManus (2002), Gupta e Lehmann (2003) e Pfeifer et al. (2005) sobre a utilidade das informações contábeis de clientes para o desempenho operacional das empresas.

**Projeto/metodologia/abordagem:** Os dados foram coletados por meio de um questionário enviado por e-mail a contadores e gerentes de negócios vietnamitas. 324 questionários válidos foram analisados neste estudo. Os dados foram analisados usando o modelo de equação estrutural (SEM).

**Conclusões:** Os resultados mostraram um impacto positivo entre a orientação para o mercado e a intensidade competitiva das empresas no uso das informações contábeis dos clientes. A pesquisa também indica que as informações contábeis dos clientes e os benefícios percebidos do uso dessas informações podem apoiar o desenvolvimento de estratégias de negócios para ajudar as empresas a alcançar uma eficiência excepcional.

**Implicações sociais, práticas e de pesquisa:** A pesquisa avaliou o impacto do uso da contabilidade de clientes no desempenho das empresas com a função intermediária de contadores de clientes com a intensidade da concorrência, a orientação para o mercado e o desempenho das empresas. Com base nos resultados, são propostas algumas soluções para aplicar a contabilidade de clientes em empresas vietnamitas para melhorar o desempenho operacional.

**Originalidade/valor:** A originalidade desta pesquisa é o modelo de função das informações de contabilidade do cliente usado como mediador da influência do uso das informações de contabilidade do cliente no desempenho organizacional. Essas descobertas podem ser úteis para que as empresas vietnamitas usem as informações contábeis dos clientes para melhorar o desempenho de seus negócios.

**Palavras-chave:** Contabilidade de Clientes, Intensidade da Concorrência, Orientação de Marketing, Desempenho Operacional.

## USO DE LA CONTABILIDAD DE CLIENTES Y RENDIMIENTO ORGANIZATIVO: EL PAPEL MEDIADOR DE LA CONTABILIDAD DE CLIENTES

### RESUMEN

**Objetivo:** El estudio pretende examinar el papel mediador de la información contable sobre clientes utilizada en la relación entre la intensidad de la competencia, la orientación al marketing, la contabilidad de clientes y el rendimiento operativo en el caso de las empresas vietnamitas.

**Marco teórico:** El modelo de investigación se hereda de Guilding y McManus (2002), Gupta y Lehmann (2003) y Pfeifer et al. (2005) sobre la utilidad de la información contable sobre clientes para el rendimiento operativo de las empresas.

**Diseño/metodología/enfoque:** Los datos se recogieron mediante un cuestionario enviado por correo electrónico a contables y directivos de empresas vietnamitas. En este estudio se analizaron 324 cuestionarios válidos. Los datos se analizaron mediante un modelo de ecuaciones estructurales (SEM).

**Conclusiones:** Los resultados mostraron un impacto positivo entre la orientación al mercado y la intensidad competitiva de las empresas en el uso de la información contable sobre clientes. La investigación también indica que la información contable sobre clientes y los beneficios percibidos por el uso de esta información pueden apoyar el desarrollo de estrategias empresariales que ayuden a las empresas a lograr una eficiencia excepcional.

**Implicaciones sociales, prácticas y de investigación:** La investigación evaluó el impacto del uso de la contabilidad de clientes en el rendimiento de las empresas con el papel intermediario de los contables clientes con la intensidad de la competencia, la orientación al mercado y el rendimiento de las empresas. A partir de los resultados, se proponen algunas soluciones para aplicar la contabilidad de clientes en las empresas vietnamitas con el fin de mejorar el rendimiento operativo.

**Originalidad/valor:** La originalidad de esta investigación es el modelo de función de la información contable sobre clientes utilizado como mediador de la influencia del uso de la información contable sobre clientes en el rendimiento organizativo. Estas conclusiones pueden ser útiles para que las empresas vietnamitas utilicen la información contable sobre clientes para mejorar su rendimiento empresarial.

**Palabras clave:** Contabilidad de Clientes, Intensidad de la Competencia, Orientación de Marketing, Rendimiento Operativo.

## INTRODUCTION

Strategic management accounting is one of the effective tools to promote the competitiveness of enterprises and to help enterprises implement strategies to achieve long-term goals. In addition, strategic management accounting also provides and analyzes financial data, and information on the costs and profits of a set of customers (Guilding & McManus, 2002). Client accounting represents a tool of strategic management accounting with an approach by integrating the marketing accounting interface in a changing business context (Kraus, Hakansson, and Lind, 2015). Therefore, client accounting plays an important role in guiding the strategy and driving the company's activities.

According to Guilding and McManus (2002), customer accounting is understood as the identification, measurement, recording, and analysis of information to evaluate profit, revenue, or present value of related collection streams to a customer or a group of customers. Customer accounting provides reports for each customer or customer group to serve as a basis to support managers in making decisions related to customers. Inglis (2008) argues that customer accounting focuses on financial measures related to customers and customer characteristics and behaviors. Prakoso et al. (2023) pointed out that customer capital is a promise, doing good/service, honesty to customers and setting prices like for like. Client accounting presents the cost of product attributes that create value for the customer and provides information for making objective decisions considering the company's interests, competitiveness, and position profit.

Studies on customer accounting, as well as the relationship between the usage of customer accounting information and business performance, have been interesting to many scholars. However, applied studies have produced mixed results. Studies support the positive role of client accounting in operational efficiency, emphasizing the mediating role between client accounting and competitive intensity, market orientation, and operational efficiency. Research has found a relationship between the intensity of competition and the perceived value of customer accounting (Guilding and McManus, 2002), customer accounting has an impact on the level of competition and market orientation of enterprises (Lord et al., 2007), the benefits of client accounting on performance (Tanima and Bates, 2015; Al-Mawali et al., 2012; McManus, 2013; Helgesen et al., 2018, Prakoso et al., 2023). In addition, some studies show the opposite results, depending on the context, customer accounting can hurt operational performance (Baines and Langfield-Smith, 2003; Cadez and Guilding, 2008); O'Connor and Cheung, 2007).

In Vietnam, customer accounting is still a new category that has not been paid much attention by many scholars. Some studies have been conducted on strategic management accounting, including the content of customer accounting (Phi Anh, 2016). Vu T. H. (2021) gave an overview of customer accounting, the concept, content, and tools of customer accounting. Nguyen, Q. H. (2021) based on contingency theory to evaluate the mediating effects of management accounting systems on the relationship between market orientation and performance in the context of small businesses from 159 firms. A small town in Can Tho City, Vietnam. This study contributes to a theoretical overview of management accounting, and the relationship between market orientation, management accounting, and performance (Huy, 2021).

Given the disagreements in previous research results on customer accounting and operational efficiency as well as gaps in the research on customer accounting in Vietnam, in this study, we want to evaluate the impact of the use of customer accounting on the performance of companies with the intermediary role of customer accountants with the intensity of competition, market orientation and the performance of enterprises. The study includes the following objectives: (1) Measuring the impact of competition intensity and market orientation on the use of customer accounting information and perceived usefulness of customer information; (2) Measuring the impact of customer accounting information usage and perceived usefulness of customer information on business performance. Apart from the introduction, the rest of this paper is arranged as follows: Section 2 is the research overview. Section 3 presents the research methods. Part 4 is the results of data analysis according to the SEM model. Section 5 is a summary of the findings and conclusions.

## **LITERATURE REVIEW AND RESEARCH MODEL**

Customer accounting is a basic content of strategic management accounting. The research on customer accounting has been interested by many scholars from the following angles: (1) The nature of customer accounting; (2) Customer accountants act as intermediaries affecting operational efficiency; (3) The use of customer accounting information affects the performance of enterprises.

### **The Nature of Customer Accounting**

Customer accounting is a customer-focused method that includes all accounting techniques for estimating profits, sales, or the present value of income concerning a customer

or group of customers and is used in strategic management accounting (Guilding and McManus, 2002).

Some previous studies have mentioned customer accounting as considering the long-term value of customers (Mulhern, 1999; Libai, Narayandas, and Humby, 2002); customer loyalty (Reinartz and Kumar, 2002); customer relationship management (Ryals, 2003); customer profitability analysis (Holm, M. et al., 2016).

Some studies focus on the techniques of customer accounting. Guilding and McManus (2002) proposed four aspects of customer accounting, namely, customer profitability analysis, Customer segment profitability analysis, Lifetime customer profitability analysis, and valuation of customer or customer group as assets. After that, some authors supported this view and carried out follow-up research such as Cadez (2006), Cadez and Guilding (2008), Tanima and Bates (2015)... Al-Mawali et al. (2012) refer to 3 contents of customer accounting, namely customer profitability analysis (Individual and Group of Customers), Lifetime customer profitability analysis, and valuation of customer or customer group as assets.

Customer profitability analysis is a key component of customer accounting (Tanima and Bates, 2015), whereby revenue and expenses are divided among customers, from which profitability can be calculated for one or a group of customers.

Lifetime customer profitability analysis is a potential method for long-term and sustainable performance enhancement. Firms measure the present value of the expected future profit stream over the lifetime of a transaction with a customer (Haenlein, Kaplan, and Schoder, 2006), so the lifetime value of a customer is considered value the net present of all profits earned from customers (Bonfrer and Dreze, 2009).

Valuation of customers or customer groups as assets involves calculating the value customers bring to the company (Cadez and Guilding, 2008). Therefore, identifying and creating customer value is seen as an asset that makes customers part of the company's value, a prerequisite for the company's long-term survival and success (Gupta & Lehmann, 2003).

Although the authors have a consensus on the content of customer accounting including customer profitability analysis, Lifetime customer profitability analysis, and valuation of customer or customer group as assets, the two contents are Lifetime customer profitability analysis and valuation of customer or customer group as assets analysis are used less often.

### **The Mediating Role of Customers Accounting and Business Performance**

The intermediary role of customer accountants is performed in the relationship between competitive intensity, market orientation, and customer accounting. Accordingly, customer accounting is divided into the degree of use of information and the perceived benefit from the usage of customer accounting information.

### **The Relationship Between the Intensity of Competition and Customer Accounting**

Guiding and McManus (2002) conducted the first study with a survey of 251 of the largest listed companies in Australia and found that managers perceive the value of customer accounting practices to be greater than their usage. This study also found a relationship between the intensity of competition and the perceived merit of customer accounting.

Wang et al. (2004) argue that in a highly competitive environment, delivering better customer value is considered one of the most important factors for the success of any company. Mulhern (1999) recommends that when using customer information, businesses should analyze a new customer and not pay more than the customer's lifetime value. When businesses misjudge the profits of new customers, it will reduce the competitiveness of the business.

Lord et al. (2007) assessed the usage of customer accounting and the perceived merit of customer accounting information in 143 businesses in New Zealand. The results show that the level of competition of enterprises affects the provision of information, and the perception of value about customer accounting, accordingly, customer accounting is more focused in companies with a higher level of competition.

Tanima and Bates (2015) also conducted the same study as Guiding and McManus (2002) but in the New Zealand context 2015. The results show the extent of use and management benefits of client accounting are higher in the 2007 study by Lord et al. (2007) and similar to the results of Guiding and McManus (2002).

### **The Relationship Between Market Orientation and Customer Accounting**

Some studies support the role of market orientation on customer accounting information. Connolly and Ashworth (1994) point out that market-oriented businesses recognize the need to focus on customer profitability. Van Raaij et al. (2003) found that when businesses have an understanding of customer profitability, it will help managers make better decisions, especially decisions related to market orientation.

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. Guilding and McManus (2002) found support in the hypothesis that the use and perceived value of client accounting were higher in highly market-oriented firms.

Research by Lord et al. (2007) on the impact of the market orientation of enterprises on providing information and perceived value on customer accounting, however, there is not enough basis to conclude about this relationship in enterprises in New Zealand.

McManus (2013) carried out the study in 165 hotels representing 33% of the total 500 hotels in Australia. The results show that there is a relationship between applied customer accounting and business characteristics including market/customer orientation, market uncertainty, organizational structure, and company strategy.

To assess the influence of competitive intensity, and market orientation on customer accounting as a management tool, we use the hypothesis related to random factors that can affect the use of Use and perceived value of customer accountants according to research by Guilding and McManus (2002). The hypotheses are:

*H1: Firms with high competition will use customer accounting information more.*

*H2: Firms with a high intensity of competition will have a higher perception of the value of customer accounting.*

*H3: Firms with high market orientation will use higher customer accounting information.*

*H4: Firms with a high market orientation will have a higher perception of the value of customer accounting.*

### **The Relationship Between Customer Accounting and Business Performance**

The relationship between the use of accounting information, perceived usefulness of accounting information and firm performance has been extensively empirically verified and has provided various results. Several studies show that higher use of accounting information leads to better business performance.

Al-Mawali et al (2012) studied the relationship between the use of customer accounting information and business performance with 192 service companies listed on the Amman stock

market in Jordan. 2009. The results show that the analysis of profits by individual customers and business size are important factors affecting the performance of the business.

Helgesen et al (2018) surveyed the relationship between customer accounting practices and business performance. The survey sample of 171 largest companies in Norway. The results show that there is a positive relationship between the application of customer accounting at the aggregate level and business results. The application of individual customer analysis provides clear insights, which should be beneficial for the decision-making of managers.

Pradana ad Safitri (2023) applied the analytical tool of SmartPLS 3.0 to assess the effect of Business Orientation on Innovation Capability and Operational Performance at coffee shops in Malang City. The result suggests that Business Orientation shows a significant effect on Innovation Capability and Operational Performance.

Besides the positive effects, several other studies have reported negative effects, depending on the research context (Agbejule, 2005; Baines and Langfield-Smith, 2003; Cadez and Guilding, 2008) or insufficient. the basis for assessing the impact of customer accounting information on performance (Malmi et al., 2004).

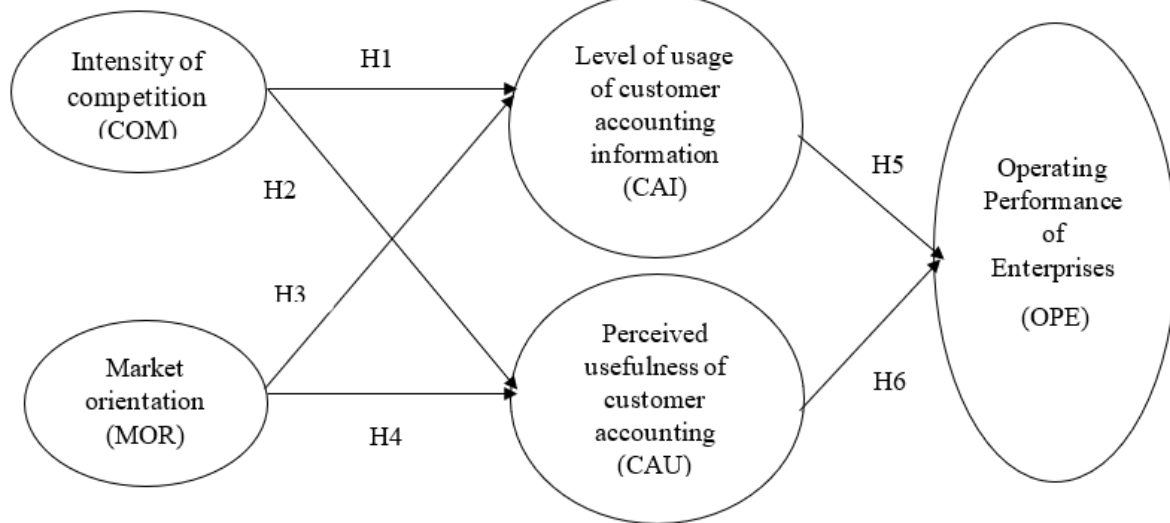
Although there are mixed results, most of the previous studies show a positive result on the relationship between the use of customer accounting information and the performance of the business. Customer accounting information can support the development of business strategies to help businesses achieve outstanding performance (Govindarajan and Gupta, 1985). From these aspects, we propose the following hypothesis:

*H5: Businesses that use more customer accounting information will have better performance.*

*H6: Firms that are more aware of the useful value of customer accounting information will have better performance.*



Figure 1. Research Model



Source: Prepared by the authors (2023)

## METHODOLOGY

### Scale Structure

The scale used in this study is inherited from the work of Guilding and McManus (2002), Gupta and Lehmann (2003), and Pfeifer et al (2005) (Table 1).

Table 1. Scale structure

Factor	Code	Variables	Reference
<b>Level of usage of customer accounting information (CAI)</b>	CAI1	1.1. Customer profitability analysis	Guilding and McManus (2002)
	CAI2	1.2. Customer segment profitability analysis	
	CAI3	1.3. Lifetime customer profitability analysis	
	CAI4	1.4. Valuation of customer or customer group as assets	
	CAI5	1.5. Customer accounting (the holistic notion)	
<b>Perceived usefulness of customer accounting (CAU)</b>	CAU1	2.1. Customer profitability analysis	Guilding and McManus (2002)
	CAU2	2.2. Customer segment profitability analysis	
	CAU3	2.3. Lifetime customer profitability analysis	
	CAU4	2.4. Valuation of customer or customer group as assets	
	CAU5	2.5. Customer accounting (the holistic notion)	
<b>Level of competition (COM)</b>	COM1	3.1. Sales and distribution	Guilding and McManus (2002)
	COM2	3.2. Quality and Diversification of Product	
	COM3	3.3. Pricing	
	COM4	3.4. Market share	
	COM5	3.5. Customer service	
<b>Market orientation (MOR)</b>	MOR1	4.1 Businesses have a deep understanding of their customers	Guilding and McManus (2002)
	MOR2	4.2 Functions in the business work closely together to add value to customers	
	MOR3	4.3 Business managers think about meeting specific market needs for long-term growth goals and potential profits.	
	MOR4	4.4 Businesses with a clear market orientation	
<b>Operating Performance of Enterprises (OPE)</b>	OPE1	5.1. Return on equity (ROE)	Gupta and Lehmann (2003);
	OPE2	5.2. Return on asset (ROA)	

<b>Operating Performance of Enterprises (OPE)</b>	OPE3	5.3. Return on investment (ROI)	Pfeifer and etc (2005)
	OPE4	5.4. Revenue	
	OPE5	5.5. Net Income	
	OPE6	5.6. Customer satisfaction	
	OPE7	5.7. Quantity of customer	
	OPE8	5.8. Market share (%)	
	OPE9	5.9. Rate of success of the new product	

Source: Prepared by the authors (2023)

### Implementation Process

Based on the theoretical model of Guilding and McManus (2002), Gupta and Lehmann (2003), and Pfeifer et al. (2005), we built the questionnaire on google forms, reviewed, adjusted, and then sent the main questionnaire. inform accountants and business managers via email by convenient sampling method from friends, relatives, partners...

Data collected 332 votes. After coding and cleaning the data, 324 valid votes were obtained to perform the analysis on SPSS 22 software using the following tools: (1) Testing the reliability of the scale using Cronbach's Alpha; (2) EFA exploratory factor analysis; (3) Correlation analysis; (4) Confirmatory factor analysis CFA; (5) Regression analysis and SEM multi-structure linear model analysis.

### Description of the Study Sample

Out of the total 324 enterprises surveyed, there are 126 small and medium-sized enterprises with fewer than 100 employees, 120 large enterprises with 100-200 employees, and 78 large-scale enterprises with many employees. employing more than 200 people. In terms of ownership, 277 enterprises are private enterprises, 31 enterprises are state-owned enterprises and 16 enterprises are non-profit activities. In terms of field of operation, 197 enterprises operate in the field of trade and services, 93 enterprises in production, and the rest are enterprises operating in the field of construction, and information technology ...

## RESEARCH RESULTS

### Evaluation of the Measurement Model

The originally proposed model was tested for the reliability of the scale in each group, analyzing the exploratory factor EFA. The items of 01 dependent variable and 02 independent variables in each group are kept the same, except for the factor "Intensity of competition \_COM" which has 3 items removed, namely COM1, COM2, COM5, variable "Perceived usefulness of customer accounting" was eliminated with 01 item CAU4 (Table 2).

Table 2. Exploratory factor analysis (EFA)

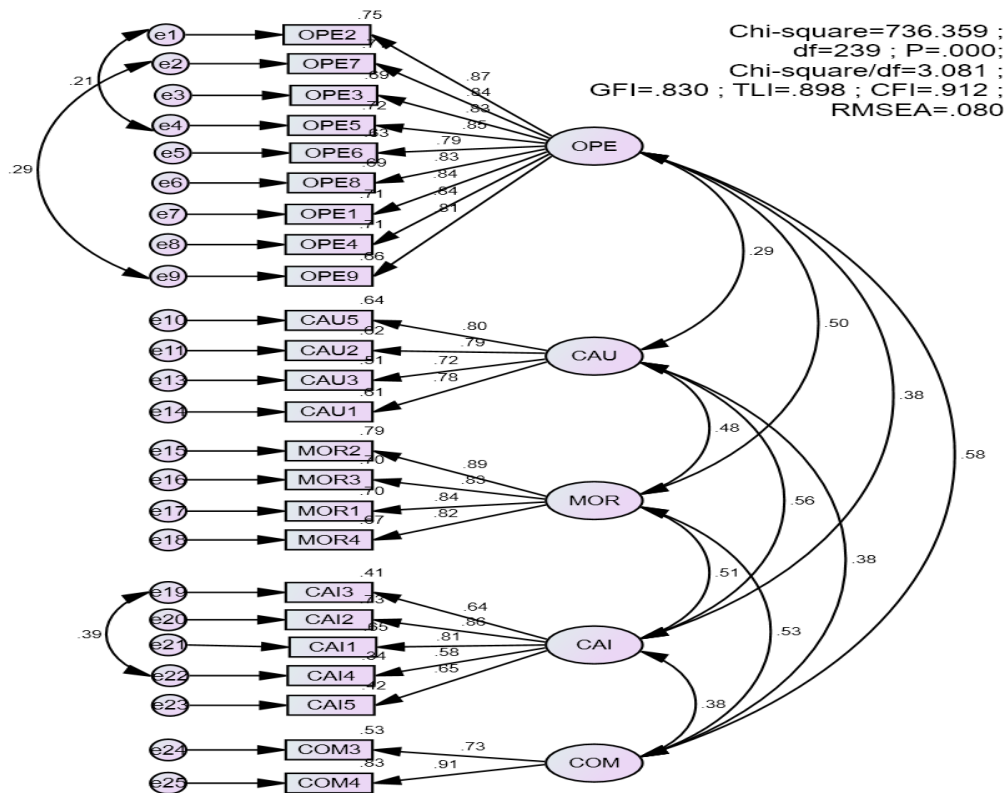
	(OPE)	CAU	MOR	CAI	COM
OPE7	.865				
OPE3	.858				
OPE2	.854				
OPE5	.833				
OPE1	.827				
OPE8	.823				
OPE6	.816				
OPE4	.807				
OPE9	.802				
CAU5		.857			
CAU2		.777			
CAU3		.716			
CAU1		.685			
MOR2			.880		
MOR3			.842		
MOR1			.803		
MOR4			.796		
CAI3				.814	
CAI2				.789	
CAI1				.762	
CAI4				.658	
CAI5				.537	
COM3					.659
COM4					.600

Source: Prepared by the authors (2023)

### Confirmatory Factor Analysis (CFA)

CFA analysis is intended to interpret the parameters and evaluate the factor model, often used after the confirmation of the basic structure of the EFA analysis. Re-evaluate the scales using the composite reliability coefficient and confirmatory factor analysis (CFA) based on the data of the official study with a sample size of N=324. The results of the CFA analysis (Figure 2) show that, after considering the correlation between the observed variable errors, the model has 239 degrees of freedom, the Chi-squared is 736,359 (p = 0.000); GFI = 0.830 (GFI > 0.8); TLI = 0.898 (TLI, > 0.8); CFI = 0.912 (CFI > 0.9); Chi-squared/df = 3.081; RMSEA = 0.08 (CMIN/df < 3, RMSEA <= 0.08), all indicators are satisfactory. Thus, the model fits the data (Hair et al., 2010).

Figure 2. CFA. analysis results



Source: Prepared by the authors (2023)

**Evaluate the Convergent Validity and Discriminant Validity of the Scale**

After evaluating the fit of the model and data, review the unidirectionality and convergence value of the scales. Converged validity using factor loading, extracted mean-variance (AVE), and composite confidence (CR). All the CFA load weights of the observed variables in this study are greater than 0.5 and are statistically significant with a confidence level greater than 90%, confirming the unidirectionality and convergence value of the scales used. used in the model are achieved. As shown in Table 3, all load weights are greater than 0.70, AVE values are higher than 0.5, and CR values are greater than the commonly used 0.70 thresholds, indicating that the measurements converge (Hair et al., 2010).

Table 3. Evaluation of the convergent validity of the scale

Regression weights		Estimate	CR	AVE	
OPE2	<---	OPE	.846		
OPE7	<---	OPE	.844		
OPE3	<---	OPE	.835		
OPE5	<---	OPE	.847	0.807	0.679
OPE6	<---	OPE	.790		
OPE8	<---	OPE	.829		
OPE1	<---	OPE	.840		
OPE4	<---	OPE	.844		

Regression weights		Estimate	CR	AVE
OPE9	<---	OPE	.814	
CAU5	<---	CAU	.800	
CAU2	<---	CAU	.786	0.837
CAU3	<---	CAU	.717	
CAU1	<---	CAU	.782	
MOR2	<---	MOR	.882	
MOR3	<---	MOR	.825	0.855
MOR1	<---	MOR	.836	
MOR4	<---	MOR	.822	
CAI3	<---	CAI	.638	
CAI2	<---	CAI	.857	
CAI1	<---	CAI	.810	0.907
CAI4	<---	CAI	.583	
CAI5	<---	CAI	.649	
COM3	<---	COM	.721	0.947
COM4	<---	COM	.916	0.690

Source: Prepared by the authors (2023)

To check the discriminant validity, the P\_value < 0.1, so the correlation coefficient of each pair of concepts is different from 1 at 90% confidence, the correlation coefficient is less than 1, so the scale measurement is discriminatory and reliable. After performing confirmatory factor analysis CFA, the scales completely satisfy the conditions to conduct SEM linear structural model analysis.

Table 4. Evaluation of the discriminant of the scale

	Correlations		Estimate	S.E.	C.R.	P
OPE	<-->	CAU	.289	.025	4.403	***
OPE	<-->	MOR	.501	.023	7.209	***
OPE	<-->	CAI	.375	.029	5.290	***
OPE	<-->	COM	.580	.026	6.830	***
CAU	<-->	MOR	.484	.024	6.641	***
CAU	<-->	CAI	.557	.034	6.535	***
CAU	<-->	COM	.382	.023	5.016	***
MOR	<-->	CAI	.508	.028	6.413	***
MOR	<-->	COM	.528	.022	6.541	***
CAI	<-->	COM	.385	.025	4.850	***

Source: Prepared by the authors (2023)

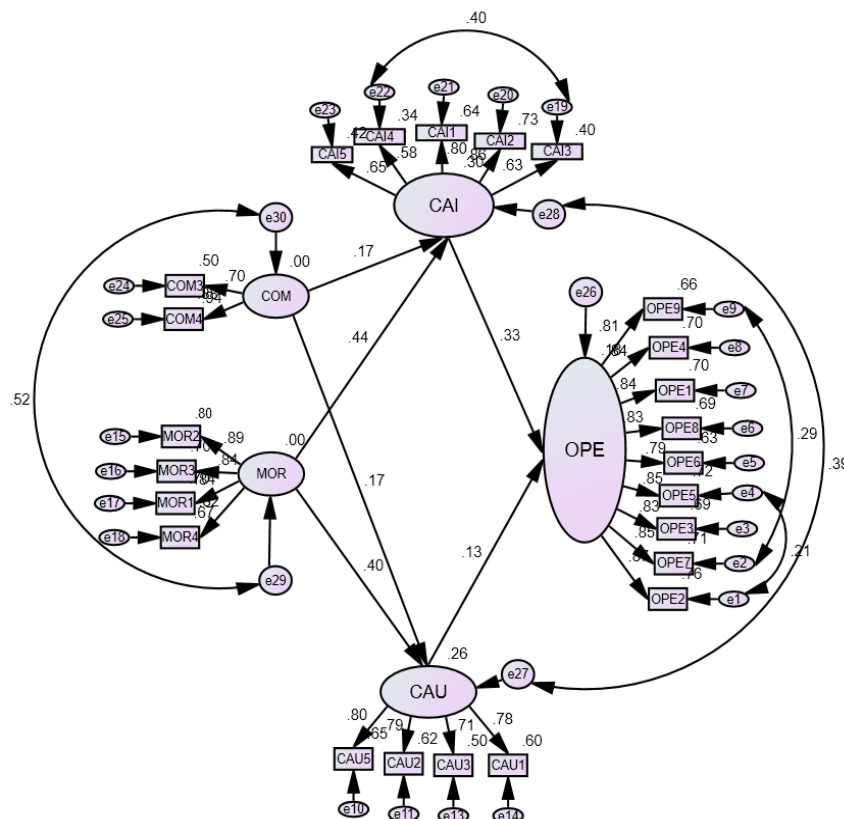
### Structural Equation Modeling SEM

The proposed research model has 05 mentioned concepts, namely: COM, MOR, CAI, CAU, and OPE. The results of the SEM analysis are shown in Figure 3. The results of SEM linear structure analysis (Figure 3) show that the model has 241 degrees of freedom with a Chi-square statistical value of 820,425; p=000. When adjusting by dividing the Chi-square value by degrees of freedom, this criterion achieves a suitable level (3.404 < 5). Other conformity

assessment criteria were met: GFI = 0.819 (>= 0.8); TLI = 0.883 (>0.8), CFI = 0.898 (> 0.8). Thus, the research model is consistent with the collected data.

Figure 3. SEM. analysis results

Chi-square=820.425 ;  
df=241 ; P=.000;  
Chi-square/df=3.404 ;  
GFI=.819 ; TLI=.883 ; CFI=.898 ;  
RMSEA=.086



Source: Prepared by the authors (2023)

Table 5. Results of testing the causal relationship in the model

Hypotheses	Relationship	Estimate	S.E.	C.R.	P	Conclusion
H1	CAI <--- COM	.225	.091	2.459	.014**	Accepted
H2	CAU <--- COM	.215	.090	2.396	.017**	Accepted
H3	CAI <--- MOR	.511	.088	5.832	***	Accepted
H4	CAU <--- MOR	.459	.081	5.674	***	Accepted
H5	OPE <--- CAI	.323	.075	4.328	***	Accepted
H6	OPE <--- CAU	.128	.073	1.755	.079*	Accepted

(Note:\*\*\*p<1%; \*\* p<5%; \* p<10%)  
Source: Prepared by the authors (2023)

According to the results of Table 5, the intensity of competition and market orientation has a positive impact on the use of customer accounting information, namely the rate of

information usage and perceived usefulness of information, in which, market orientation has a stronger impact than competitive intensity ( $\beta = 0.459$  and  $0.511$ ). The use of customer accounting information and the perceived usefulness of customer accounting information has a positive impact on the performance of the enterprise ( $\beta = 0.323$  and  $0.128$ ).

## **DISCUSSION**

### **Effect of Market Orientation (MOR) on Customer Accounting (CAI, CAU)**

This study has shown that market orientation has the strongest impact on the use of customer accounting information. Enterprises with high market orientation will use customer accounting information more. This result is consistent with the assessment of Van Raaij et al. (2003) who said that businesses have an understanding of customer profitability that will help managers make better decisions related to market orientation. This result is consistent with previous work by Slater and Narver (1994), Guilding and McManus (2002), and Lord et al. (2007) when arguing that market orientation increases the value of customers, the perceived value of customer accounting is higher in companies with high market orientation.

This study also supports the hypothesis that market orientation has a positive effect on the perceived usefulness of customer accounting information, therefore, firms with high market orientation will perceive the benefits of higher customer accounting. This result is consistent with the research of Slater and Narver (1994), and Guilding and McManus (2002) all agree that market orientation increases customer value, supporting the hypothesis for the use and perceived value of client accounting is higher in highly market-oriented firms.

### **Effect of Competitive Intensity (COM) on Customer Accounting (CAI, CAU)**

This study has shown that the intensity of competition has an impact on the level of use of customer accounting and the perceived benefits of customer accounting equally. With the support of the hypothesis that enterprises with high competition intensity will focus on using customer accounting information and perceive the usefulness of customer accounting. Therefore, in a highly competitive environment, delivering better customer value is considered one of the most important factors for the success of companies. This result is consistent with previous studies by Guilding and McManus (2002), Lord et al. (2007), and Tanima and Bates (2015) when it was found that the level of competition of enterprises affects the provision of information and perception of value about customer accounting, accordingly, customer accounting is more focused in companies with a higher level of competition.

### **The Effect of the Usage of Customer Accounting Information (CAI) on Operating Performance (OPE)**

The results of this study support the hypothesis that enterprises using more customer accounting information will have higher operational efficiency. This result is consistent with the study of Al-Mawali et al. (2012), and Helgesen et al. (2018) when it is suggested that customer accounting information with detailed analysis of profit by customer, customer group Customer service, or customer life cycle assessment, considering customer as an asset of an enterprise will bring useful information to managers in making business decisions, thereby contributing to improving the operational efficiency of enterprises. For Vietnamese enterprises, although customer accounting is still a new category, it has made certain contributions to improving operational efficiency. The results of the study further support the effect of customer accounting information that some previous studies have not supported such as Agbejule (2005), Baines and Langfield-Smith (2003), and Cadez and Guilding (2008).

### **Effect of Perceived Usefulness of Customer Accounting Information (CAU) on Operating Performance (OPE)**

Management accounting information in general and customer accounting information in particular is an effective tool for managers in decision-making, which can support the development of business strategies, thereby helping businesses achieve efficiency. outstanding. The results of this study also support the above argument when there is a reliable basis for assessing the impact of the perceived usefulness of customer accounting information on business performance. Previous studies support this view such as Al-Mawali et al. (2012), and Helgesen et al. (2018). This result adds support to the view that customer accounting has a positive impact on firm performance, in contrast to the results of Cadez and Guilding (2008), and Malmi et al. (2004).

### **SOME SUGGESTIONS**

Customer accounting has not been focused on and applied popularly in Vietnamese enterprises. However, in the context of fierce competition, more and more customer-oriented businesses focus on customers and implement strategies with customers, and management accounting tools become more and more important to provide information. appropriate, appropriate for the selection of business decisions. From the research results, some proposed



solutions to apply customer accounting in Vietnamese enterprises to improve operational efficiency are as follows:

*First*, in terms of the scope of application, customer accounting should be promoted for businesses with a customer-centric structure, which is not suitable for a product-centric business. Enterprises need to have market orientation according to customer groups and need to pay more attention to customer accounting information to improve operational efficiency.

*Second*, businesses need to increase the use of customer accounting information to create excellent customer relationships that can provide a sustainable competitive advantage and increase profit performance per customer. To compete in a volatile marketplace, customer relations enable companies to create competitive opportunities, enhance competitive advantage, and improve customer satisfaction. Customer relationship is the process of reaching a dialogue with customers, having their expected responses, and providing input from each customer to maximize efficiency.

*Third*, businesses need to pay attention to customer accounting techniques such as customer profit analysis, customer asset assessment, and customer life cycle assessment to be able to collect information and make appropriate decisions. consult for each customer in the short and long term.

*Fourth*, customer accounting in research in Vietnam is still very new, so universities and accounting training organizations should invest in research and supplement customer accounting content to teach. , to create accounting resources that can apply customer accounting analysis tools in the future.

*Fifth*, promote the role of the administrator in controlling by making decisions related to the use of customer accounting information. Managers must be decisive, and make timely decisions in unusual situations, situations that contradict the estimate, difficult decisions when choosing options, or important strategic decisions, especially building customer strategies. To evaluate and analyze well the risks that may occur in each decision, the administrator needs to develop an overall goal in the operation of the enterprise and details for each related department or activity in a manner that is appropriate for the organization. clear.

## CONCLUSION

The study was carried out on 324 Vietnamese enterprises to evaluate the impact of customer accounting on business performance, in which, the role of customer accountant is the intermediary. The results have shown that there is a positive impact between market orientation

and the competitive intensity of enterprises on the use of customer accounting information. Enterprises with high customer-oriented market orientation, under strong competitive pressure, will pay attention to customer care, and improve customer satisfaction, thereby having a loyal customer base and helping to achieve new goals. financial goals. Moreover, the research also shows that customer accounting information and the perceived benefits of using customer accounting information can support the development of business strategies to help enterprises achieve outstanding efficiency.

The limitation of the study is that it focuses on managers at all levels and accountants. Further analysis is needed to assess whether different uses of customer accounting information have the same results at other levels of management. Research should make comparisons between enterprises with their size, business lines, age characteristics, etc., there are differences in the use of customer accounting information and the impact of factors on efficiency. performance is different or not.

## REFERENCES

- Agbejule, A. (2005). The relationship between management accounting systems and perceived environmental uncertainty on managerial performance: a research note. *Accounting and Business Research*, 35(4), 295-305.
- Al-Mawali, H., Zainuddin, Y., & Nasir Kader Ali, N. (2012). Customer accounting information usage and organizational performance. *Business Strategy Series*, 13(5), 215-223.
- André Bonfrer, Xavier Drèze. (2008). Real-Time Evaluation of E-mail Campaign Performance. *Marketing Science*, 28(2), 251-263. <https://doi.org/10.1287/mksc.1080.0393>
- Baines, A. and Langfield-Smith, K. (2003). Antecedents to management accounting change: a structural equation approach. *Accounting, Organizations and Society*, 28 (7-8), 675-98.
- Cadez, S. (2006). A cross industry comparison of strategic management accounting practices: an exploratory study. *Economic and Business Review for Central and South-Eastern Europe*, 8(3), 279-99.
- Cadez, S. and Guilding, C. (2008). An exploratory investigation of an integrated contingency model of strategic management accounting. *Accounting, Organizations and Society*, 33(7-8), 836-63.
- Gupta, S., & Lehmann, D. (2003). Customers as assets. *Journal of Interactive Marketing*, 17(1), 9-24.
- Govindarajan, V. and Gupta, A.K. (1985). Linking control systems to business unit strategy: impact on performance. *Accounting, Organizations and Society*, 10(1), 1-66.

Guilding, C., & McManus, L. (2002). The incidence, perceived merit and antecedents of customer accounting: An exploratory note. *Accounting, Organizations and Society*, 27(1-2), 45-59.

Kraus, K., Håkansson, H., & Lind, J. (2015). The marketing-accounting interface – problems and opportunities. *Industrial Marketing Management*, 46, 3-10. <https://doi.org/10.1016/j.indmarman.2015.01.001>

Haenlein, M., Kaplan, A. M., & Schoder, D. (2006). Valuing the Real Option of Abandoning Unprofitable Customers when Calculating Customer Lifetime Value. *Journal of Marketing*, 70(3), 5–20. <https://doi.org/10.1509/jmkg.70.3.005>

Hair, J., Black, W., Babin, B., & Ander, R. (2010). *Multivariate Data Analysis*. New Jersey: Pearson Academic.

Helgesen, Ø., Sandanger, H.M. and Sandbekk, J. (2018). Do customer profitability analyses pay? A survey of large Norwegian companies. *Int. J. Managerial and Financial Accounting*, 10(4), 352–377.

Holm, M., Kumar, V., & Plenborg, T. (2016). An investigation of customer accounting systems as a source of sustainable competitive advantage. *Advances in Accounting*, 32, 18-30.

Libai, B., Narayandas, D., & Humby, C. (2002). Toward an Individual Customer Profitability Model: A Segment-Based Approach. *Journal of Service Research*, 5(1), 69–76. <https://doi.org/10.1177/1094670502005001007>

Lord, B.R., Shanahan, Y.P., & Nolan, B.M. (2007). The use and perceived merit of customer accounting in New Zealand. *Accounting Research Journal*, 20(1), 47-59.

Malmi, T., Raulas, M., Gudergan, S., & Sehm, J. (2004). An empirical study on customer profitability accounting, customer orientation and business unit performance. *Paper presented at the EAA conference, Prague*.

McManus, L. (2013). Customer accounting and marketing performance measures in the hotel industry: evidence from Australia. *International Journal of Hospitality Management*, 33, 140-152.

Mulhern, F. (1999). Customer profitability analysis: Measurement, concentration, and research directions. *Journal of Interactive Marketing*, 13(1), 25–40.

Nguyen, Q. H. (2021). The impact of market orientation on small businesses' performance in Vietnam: The mediating effects of the management accounting system. *Entrepreneurial Business and Economics Review*, 3, 59-72.

O'Connor, N. G., & Cheung, C. L. K. (2007). Product/service adoption strategies and bank customer accounting in Hong Kong. *Pacific Accounting Review*, 19(1), 31-46.

Pfeifer, P.E., Haskins, M.E., & Conroy, R.M. (2005). Customer lifetime value, customer profitability, and the treatment of acquisition spending. *Journal of Managerial Issues*, 17(1), 11-25.

- Phi Anh, D. N. (2016). Factors Affecting the Use and Consequences of Management Accounting Practices in A Transitional Economy: The Case of Vietnam. *Journal of Economics & Development*, 18(1), 54-73. doi:10.33301/2016.18.01.04
- Pradana, B. I., & Safitri, R. (2023). Business Orientation and Innovation Capability in Improving Operational Performance. *International Journal of Professional Business Review*, 8(5), e01136. <https://doi.org/10.26668/businessreview/2023.v8i5.1136>
- Prakoso, A., Triyuwono, I., Purwanti, L., & Roekhudin, R. (2023). How should intellectual capital development? An islamic religious perspective. *International Journal of Professional Business Review*, 8(5), e01819. <https://doi.org/10.26668/businessreview/2023.v8i5.1819>
- Robert M. Inglis. (2008). Exploring accounting and market orientation: an interfunctional case study. *Journal of Marketing Management*, 24(7-8), 687-710, DOI: [10.1362/026725708X345470](https://doi.org/10.1362/026725708X345470)
- Reinartz W, Kumar V. (2002). The mismanagement of customer loyalty. *Harvard Business Review*, 80(7), 86-94.
- Ryals, L. (2003). Creating profitable customers through the magic of data mining. *Journal of Targeting, Measurement and Analysis for Marketing*, 11 (4), 343–349.
- Slater, S. and Narver, J. (1994). Market orientation, customer value, and superior performance. *Business Horizons*, 37(2), 22–28.
- Tanima and Bates. (2015). The incidence and perceived managerial merit of customer accounting in New Zealand. *Pacific Accounting Review*, 27(4), 466-485.
- Vu, T. H. (2021). Overview of accounting for clients in the world and experience for Vietnamese enterprises. *Industry and Trade Magazine*, 6.
- Wang, Y., Lo, H.P. and Yang, Y. (2004). An integrated framework for service quality, customer value, satisfaction: evidence from China's telecommunication industry. *Information Systems Frontiers*, 6( 4), 325-340.