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**ACTIVITY-BASED COSTING IN GARMENT
ENTERPRISES IN THE MEKONG DELTA
REGION**

Major: Accounting

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SUMMARY OF DOCTORAL THESIS IN ECONOMICS

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Phản biện 1:.....
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The dissertation will be defended before the Academy-level Dissertation Defense Committee at Time:, Date: /..... /.....

INTRODUCTION

1. Necessity of the study

Amidst global integration, the Vietnamese textile and garment sector is shifting from basic Cut-Make-Trim (CMT) processing to high-value-added approaches like Free on Board (FOB) and Original Design Manufacturing (ODM), which consequently drives up manufacturing overheads significantly. Traditional cost accounting systems have exposed various shortcomings by allocating indirect costs using arbitrary volume-based bases, thereby distorting product cost information. Consequently, Activity-Based Costing (ABC) is recognized as a strategic management tool that facilitates effective product pricing and cost control. Nevertheless, the adoption of the ABC method in developing economies continues to encounter significant obstacles.

Based on the Vietnam Enterprise White Book and data from the General Statistics Office (2023), the Mekong Delta is strategically positioning itself as a center for light industry, drawing significant investment into the textile and apparel industry. Characteristically, garment enterprises in this region are primarily small and medium-sized enterprises (SMEs), and their cost management capacity remains inconsistent compared to other key economic regions.

Based on a review of domestic academic databases from 2010 to 2023, encompassing specialized journals and thesis archives, research on the implementation of ABC has been largely concentrated in Ho Chi Minh City and Binh Duong (Phan Dam Trung Tin, 2018; Luong Thi Huynh Nhu, 2021). Within the scope of the author's search, there is currently no systematic research comprehensively assessing ABC adoption in the Mekong Delta. According to Otley's (1980) Contingency Theory, rigid application of the ABC method from other economic zones to the Mekong Delta lacks scientific grounding owing to differences in contextual variables. Consequently, examining the influencing factors and the efficacy of ABC adoption in this region constitutes an essential research gap to be fulfilled.

Stemming from the aforementioned analysis, undertaking the study titled ***"Activity-Based Costing in Garment Enterprises in the Mekong Delta Region"*** is of paramount urgency and carries deep theoretical as well as practical implications.

2. Research Objectives

General Objective: The research presents an overview of the theoretical framework regarding the Activity-Based Costing (ABC) method; surveys the current state of ABC implementation in garment enterprises in the Mekong Delta region; identifies and measures the impact level of various factors on the application of ABC; and evaluates the effect of ABC implementation on the operational performance (from a financial performance perspective) of garment enterprises in the Mekong Delta, thereby clarifying the mediating mechanism of ABC application. Consequently, the study proposes solutions to enhance the applicability of the Activity-Based Costing (ABC) method in garment enterprises in the Mekong Delta region.

Specific Objectives:

- Systematizing the theoretical foundation of the Activity-Based Costing (ABC) method.
- Surveying and evaluating the current state of ABC implementation in garment enterprises in the Mekong Delta region.
- Identifying and measuring the degree of influence of contextual factors (competition, top management support, awareness of the ABC method, technical conditions, implementation resources, etc.) on ABC adoption in garment enterprises in the Mekong Delta.
- Evaluating the impact of ABC adoption on firm performance (from the perspective of financial performance) of garment enterprises in the Mekong Delta, thereby clarifying the mediating mechanism of ABC adoption.
- Proposing solutions to enhance the successful implementation capability of the ABC method in garment enterprises in the Mekong Delta region.

3. Research Subjects and Research Scope

Research Subjects: The current state of Activity-Based Costing (ABC) application and the factors affecting its implementation in garment enterprises in the Mekong Delta region. Simultaneously, the study investigates the impact of ABC implementation on the operational performance (from a financial perspective) of these enterprises, thereby clarifying the mediating role of ABC application in the relationship between contextual factors and the financial performance of garment enterprises in the Mekong Delta region.

Research Scope:

Geographical Scope: The study focuses on surveying enterprises operating in the garment manufacturing and processing sector across the provinces and cities of the Mekong Delta region.

Timeframe of the Study: The secondary data (including financial reports, management reports, production procedures, etc.) employed in the research are restricted to a 3-year timeframe from 2022 to 2024. The primary data (obtained via expert interviews and survey questionnaires) were collected during the period from June 2024 to December 2024.

Scope of research content of the dissertation: Investigating the impact level of factors influencing the application of the Activity-Based Costing (ABC) method and testing the effect of ABC implementation on enterprise financial performance, while examining the mediating role of ABC application in the relationship between contextual factors and the financial performance of garment enterprises in the Mekong Delta region.

4. Research Methodology

Combining qualitative and quantitative research methods.

5. New Contributions of the Dissertation

Novel Theoretical and Academic Contributions: Firstly, the study enhances and enriches the theoretical system of management accounting within the setting of an emerging economy. Secondly, it empirically tests and extends the scope of underpinning theories. The dissertation creatively utilizes and verifies the suitability of Contingency Theory, Innovation Diffusion Theory, Cost-Benefit Theory, and the Resource-Based View (RBV) in Mekong Delta garment firms. Thirdly, it constructs and validates measurement scales appropriate for the new research setting.

Practical Contributions: Firstly, the study delivers a comprehensive and empirical dataset on cost management practices. It presents a detailed overview of cost accounting and costing procedures within Mekong Delta garment firms. Secondly, it suggests a framework of highly practical solutions for enterprises. Thirdly, it outlines managerial implications and policy recommendations. Concurrently, the dissertation serves as a reference for professional bodies (such as the Vietnam Textile and Apparel Association - VITAS) to facilitate advisory services and best-practice sharing in modern

management accounting, enabling the regional textile and garment sector to develop sustainably and align with global integration trends.

CHAPTER 1. REVIEW OF RELATED RESEARCH WORKS

1.1. Research Works Related to the Activity-Based Costing (ABC) Method

Appah et al. (2013) examined the determining factors in the Nigerian hospitality sector, highlighting the significance of training and top management support. Similarly, Rosebud and Jacob (2014) investigated small and medium-sized enterprises (SMEs) in South Africa, agreeing that leadership commitment and coaching are pivotal. Significantly, Al-Mekhilafi and Eddin Othman (2023) asserted the vital function of the ABC system in controlling costs and improving production efficiency among Saudi Arabian firms.

In Vietnam, research on ABC appeared later and mainly concentrated on recognizing the obstacles and drivers of implementing this method within a transitional economy.

Concerning empirical studies categorized by industry and region, researchers have explored specific fields in depth. Within the pharmaceutical sector, Tran Tu Uyen (2016) pinpointed six positive determinants, encompassing firm size, cost structure, and the degree of competition.

Regarding the steel industry in Ho Chi Minh City, Tran Van Tung et al. (2021) discovered a positive correlation between the competence of accounting personnel, information technology, and the likelihood of ABC adoption.

Research conducted in the Southern Key Economic Zone has also contributed substantially to the theoretical system. Phan Dam Trung Tin (2018) and Nguyen Thi Huong Giang (2019) both concentrated on firms in Ho Chi Minh City, corroborating the significance of competition and top management support. Luong Thi Huynh Nhu (2021) introduced the elements of leadership and external consultants into the analytical framework. Most recently, Phan Thi Ngoc (2023), researching in Binh Duong, ranked the quality of the IT system as the paramount factor. Nevertheless, these studies are largely confined to major industrial centers, leaving a gap in the literature regarding the particularities of garment enterprises in the Mekong Delta region.

1.2. Research Works on Factors Affecting the Adoption of the Activity-Based Costing (ABC) Method

Within the service sector, Appah et al. (2013) investigated the Nigerian hospitality industry and identified five pivotal factors: potential cost distortion, the utility of accounting information, top management support, performance measurement, and training programs. Their findings indicated that the rate of ABC adoption remained low, primarily due to insufficient investment in software and human resource training. Likewise, in the context of manufacturing small and medium-sized enterprises (SMEs) in South Africa, Rosebud and Jacob (2014) corroborated a positive correlation between the acceptance of ABC and both employee training and leadership commitment. Furthermore, they highlighted that the application of ABC exerts a positive effect on business performance.

Most recently, in a study conducted in Saudi Arabia, Al-Mekhilafi and Eddin Othman (2023) further reinforced evidence regarding the role of ABC in enhancing production efficiency and supporting managerial planning through the impact of raw material cost control factors.

In Vietnam, domestic studies have delved into quantifying the degree of influence of various factors on the application of ABC within specific industries and localities, with high consensus regarding the role of technology and management support.

For heavy industries such as steel, Tran Van Tung et al. (2021) identified a positive impact of accounting staff qualifications and cost control strategies. Recently, when surveying FDI enterprises in Binh Duong, Phan Thi Ngoc (2023) reported contrasting findings, identifying the quality of information technology systems as the most significant factor, surpassing both firm size and management support.

According to the study by Tran Tu Uyen and Tran Thi Hien (2022), titled "Factors of application of activity-based costing method: Evidence from a transitional country," this research examines the factors influencing the adoption of the ABC method among enterprises in a transitional country, focusing on a single case of a specific industry in Vietnam: pharmaceutical companies.

The research findings indicate that the higher the proportion of manufacturing overhead costs, the greater the likelihood of ABC adoption. Companies with a larger

variety of products tend to utilize ABC more than others. Furthermore, firms that consider price competition to be very important are more inclined to adopt ABC compared to those placing less emphasis on price competition. Similarly, enterprises that view quality competition as more important tend to implement ABC to a higher degree than those regarding it as less important. Conversely, no significant evidence was found regarding a link between cost information and the adoption of ABC among the studied companies.

Pham Ngoc Viet Phuong (2023) investigated the factors influencing the implementation of the Activity-Based Costing (ABC) system among textile and garment enterprises in Ho Chi Minh City. The author employed quantitative research methods to test the research model and measure the extent of these factors' impact. Based on 150 valid survey responses processed and analyzed using SPSS 20 software, the results identified five factors along with their corresponding impact levels: "Competition" (27.76%), "Accountants' qualifications" (25.55%), "Top management support" (21.14%), "Product diversity" (13.16%), and "Information technology resources" (12.39%).

1.3. Studies on the impact of Activity-Based Costing (ABC) implementation on operational performance

Regarding financial performance, several studies have found a positive relationship between ABC adoption and profitability. Cagwin and Bouwman (2002) confirmed that ABC is positively associated with improved financial performance (ROI). Similarly, in the Czech Republic, Pokorná (2016) also documented the impact of ABC on corporate financial performance. However, these findings are not always consistent. Investigating companies in the Czech Republic, Knápková et al. (2014) showed no immediate, significant financial improvement, suggesting that the benefits of ABC depend heavily on implementation quality and complementary factors. Furthermore, Jänkälä and Silvola (2012) added that for small enterprises, the financial impact of ABC often involves a time lag and only materializes once the firm overcomes initial resource constraints.

Regarding operational performance and strategic decision-making, the empirical evidence appears more consistent. Banker et al. (2008) emphasize the mediating role of

world-class manufacturing practices in translating ABC information into plant performance. Furthermore, ABC provides strong support for strategic decision-making.

In the context of emerging economies and specialized sectors, the impact of ABC has also attracted considerable research interest. Maiga (2017) demonstrated that integrating ABC with both internal and external information systems amplifies plant performance. In the healthcare sector, French et al. (2013) and Nabelsi and Plouffe (2024) indicated that the Time-Driven Activity-Based Costing (TDABC) variant helps improve processes and patient care value. However, in emerging markets such as South Africa, Rundora and Selesho (2014) noted that organizational barriers may limit the benefits derived from this method.

In Vietnam, research on the relationship between ABC and firm performance has emerged more frequently in recent years, providing crucial empirical evidence within the context of a transitional economy.

Most notably, the study by Pham et al. (2021) provided direct empirical evidence from Vietnam, confirming that the implementation of activity-based costing positively impacts firm performance. This research plays a significant role in bridging the theoretical gap regarding the impact of ABC in emerging markets, where conditions related to managerial infrastructure and technology still differ from those in developed countries.

In addition, research has delved into specific industries to assess the impact of ABC. Tran and Nguyen (2025) conducted a case study at coal-fired power plants in Vietnam. Their findings analyzed the impact of factors when adopting ABC to improve organizational performance. This study demonstrates that in heavy industries characterized by high overhead costs and significant environmental pressures, applying ABC not only helps control costs but also contributes to enhancing overall managerial performance.

1.4. Discussion and Research Gaps

First, there is a geographical gap. Existing domestic studies primarily focus on major economic centers such as Ho Chi Minh City and Binh Duong. Meanwhile, the Mekong Delta region—with its unique characteristics in human resources, logistics infrastructure, and the management culture of small and medium-sized enterprises (SMEs)—remains under-researched.

Second, there is a sectoral gap. Most prior studies have relied on cross-industry analyses or focused broadly on general manufacturing. Despite having a complex cost structure, being highly labor-intensive, and facing pressure to transition its production models (from CMT to FOB/ODM), the garment industry has yet to be examined in in-depth research on ABC.

Third, there is a theoretical gap. Existing studies in Vietnam primarily focus on identifying factors that hinder or promote the adoption of ABC. Very few studies have conducted a comprehensive empirical test of the causal chain from antecedent factors to firm performance.

Fourth, there is a methodological gap. Most domestic research relies on OLS regression or descriptive statistics, which exhibit clear limitations when dealing with complex structural models containing mediating variables and non-normally distributed data. This dissertation will employ the modern PLS-SEM technique to enhance the reliability of structural model testing and simultaneously estimate multidimensional relationships.

CHAPTER 2. THEORETICAL FRAMEWORK

2.1. Activity-Based Costing (ABC) Method

2.1.1. Concept of Activity-Based Costing (ABC)

Broadening the scope of measurement, Krumwiede (1998) describes ABC as a method that focuses on measuring the cost and performance of activities, resources, and cost objects. The key advantage highlighted by Sanford (2009) is its ability to trace costs based on activity-based variability. According to the author, the core principle of ABC is transforming resources into outputs through activities, utilizing a diverse set of cost drivers to assign manufacturing overhead as accurately as possible, rather than relying solely on simplistic allocation bases such as labor hours or machine hours.

In summary, based on the aforementioned perspectives, the ABC method can be understood as a modern cost management approach where costs are allocated following the cause-and-effect principle: resources are assigned to activities, and the costs of these activities are then allocated to the final cost objects (products, services, customers, distribution channels, etc.) based on their consumption of those activities. The essence

of this method lies in accurately measuring the volume of activities consumed by each object in order to determine its true cost.

2.1.2. Roles and benefits of the Activity-Based Costing (ABC) method

- From an accounting perspective:

According to Kaplan & Atkinson (1998), the ABC method measures and allocates resource costs related to activities supporting the production and distribution of products.

- From a managerial perspective:

According to Gosselin & Lavae (1997), the ABC method is considered a component of operations management, providing useful information for decision-making.

According to Cooper (1988), the information provided by the ABC method is more accurate and of higher quality compared to traditional methods.

This indicates that the Activity-Based Costing (ABC) method provides accurate and timely information, assisting managers in evaluating and drawing conclusions about profitability and business performance, as well as in making critical decisions that impact the long-term operations of the enterprise.

2.1.3. Technical steps for implementing the Activity-Based Costing (ABC) method in garment enterprises in the Mekong Delta region

The Activity-Based Costing (ABC) allocation method in garment enterprises allocates indirect (overhead) costs based on the actual resource consumption of each activity (cutting, sewing, ironing, inspecting) rather than solely on production volume. The process consists of two stages: converting resource costs (salaries, electricity, depreciation) into activity costs, and then allocating them to each item code/product.

Step 1: Identify the resources: Direct materials costs, direct labor costs, electricity, machinery depreciation (cutting machines, sewing machines), and factory management costs.

Step 2: Identify the activities: Key activities include pattern design, fabric spreading, fabric cutting, sewing, ironing, packaging, and quality inspection.

Step 3: Determine resource costs for each activity (Stage 1): Allocate overhead costs (such as electricity) to the fabric cutting activity (based on machine hours) and the sewing activity (based on labor hours).

Step 4: Identify the cost drivers: Select the factors that generate costs, for example: number of designs, fabric cutting hours, number of orders, and sewing hours.

Step 5: Allocate activity costs to products (Stage 2): Calculate the product cost by adding direct costs to the activity costs allocated based on the level of consumption. (Source: Compiled by the author).

2.2. Foundational theories related to the factors influencing the adoption of the Activity-Based Costing (ABC) method

2.2.1. Contingency Theory

2.2.2. Innovation Diffusion Theory

2.2.3. Benefit-Cost Theory (Note: often referred to as Cost-Benefit Theory in English literature)

2.2.4. Resource-Based View (RBV)

2.3. Factors influencing the adoption of the ABC method in garment enterprises in the Mekong Delta region

***Hypothesis H1:** Competition has a positive impact on the adoption of Activity-Based Costing (ABC) in garment enterprises in the Mekong Delta region.*

***Hypothesis H2:** Top management support has a positive impact on the adoption of Activity-Based Costing (ABC) in garment enterprises in the Mekong Delta region.*

***Hypothesis H3:** A clear awareness of the ABC method has a positive impact on the adoption of Activity-Based Costing (ABC) in garment enterprises in the Mekong Delta region.*

***Hypothesis H4:** Training and education has a positive impact on the adoption of Activity-Based Costing (ABC) in garment enterprises in the Mekong Delta region.*

***Hypothesis H5:** Technical conditions have a positive impact on the adoption of Activity-Based Costing (ABC) in garment enterprises in the Mekong Delta region.*

***Hypothesis H6:** Implementation resources have a positive impact on the adoption of Activity-Based Costing (ABC) in garment enterprises in the Mekong Delta region.*

***Hypothesis H7:** Firm size has a positive impact on the adoption of Activity-Based Costing (ABC) in garment enterprises in the Mekong Delta region.*

***Hypothesis H8a:** The adoption of Activity-Based Costing (ABC) has a positive impact on the financial performance of garment enterprises in the Mekong Delta region.*

Hypothesis H8b: *The adoption of Activity-Based Costing (ABC) plays a mediating role in the relationship between competition and firm financial performance.*

Hypothesis H8c: *The adoption of Activity-Based Costing (ABC) plays a mediating role in the relationship between top management support and firm financial performance.*

Hypothesis H8d: *The adoption of Activity-Based Costing (ABC) plays a mediating role in the relationship between awareness of the ABC method and firm financial performance.*

Hypothesis H8e: *The adoption of Activity-Based Costing (ABC) plays a mediating role in the relationship between training and education and firm financial performance.*

Hypothesis H8f: *The adoption of Activity-Based Costing (ABC) plays a mediating role in the relationship between technical conditions and firm financial performance.*

Hypothesis H8g: *The adoption of Activity-Based Costing (ABC) plays a mediating role in the relationship between implementation resources and firm financial performance.*

Hypothesis H8h: *The adoption of Activity-Based Costing (ABC) plays a mediating role in the relationship between firm size and firm financial performance.*

CHAPTER 3. RESEARCH METHODOLOGY

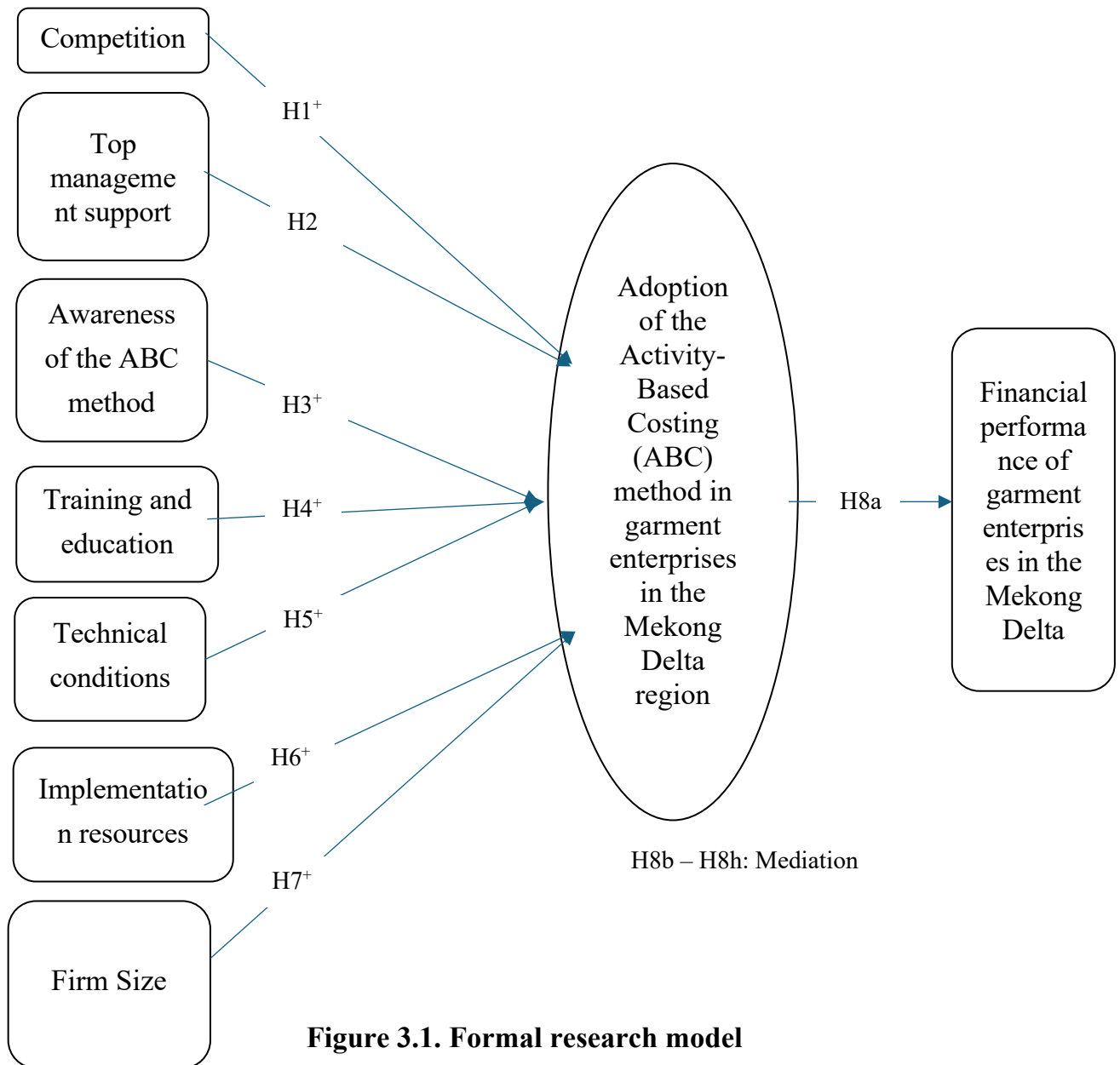
3.1. Qualitative Research

3.1.1. Qualitative research design:

The qualitative research was conducted through a survey using a pre-designed questionnaire. The author sent 252 survey questionnaires to 252 garment enterprises in the Mekong Delta region. Only one questionnaire was sent to each enterprise. The results yielded 235 returned questionnaires. Among these, the author eliminated 14 invalid responses. The remaining number of valid questionnaires included in the analysis was 221.

3.1.2. Research hypothesis development

The formal research model, after applying foundational theories, building upon previous studies, and consulting with experts, is as follows:



3.2. Quantitative Research

3.2.1. Scale development

All observed variables in the method are measured using Likert scales. Based on previous studies (e.g., Podsakoff et al., 2003; Abu Afifa & Nguyen, 2023), to mitigate common method bias when using survey data, the author combined a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree) and a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree).

3.2.2. Quantitative research design

Data collection method: The primary data collection methods in the study include two approaches: distributing survey questionnaires directly to the respondents and sending/receiving survey questionnaires to the respondents via Google Forms and email.

According to Hair et al. (2010), to use quantitative analysis, the minimum sample size must be 50, and preferably 100. Meanwhile, the sample size determined when conducting exploratory factor analysis will be based on the minimum threshold and the number of variables included in the analysis. Specifically: the minimum limit (Min) = 50; the ratio of observations to one analyzed variable (k) is 5:1. If the method has m scales, and P_i is the number of observed variables of the i-th scale, the sample size is determined as: $n = 5 \sum_{i=1}^m P_i$. In the author's research method, there are 9 scales and 36 observed variables, so according to this formula, the sample size is: $n = 5 \times 36 = 180$.

Survey respondents: Chief accountants or accountants at garment enterprises in the Mekong Delta region.

3.2.3. Data analysis method

Assessing scale reliability using Cronbach's Alpha and Regression Analysis.

The study applies a statistical significance level of 5% ($\alpha = 0.05$) for all tests. The primary tools used to support data analysis are SPSS version 23.0 and SmartPLS 3 software.

CHAPTER 4. RESEARCH RESULTS

4.1. Current status of adopting the Activity-Based Costing method in garment enterprises in the Mekong Delta region

Table 4.1. Statistics on the adoption of the ABC method in surveyed garment enterprises in the Mekong Delta region

	Quantity	Percentage (%)
No	193	87,3
Yes	28	12,7
Total	221	100,0

(Source: Compiled by the author from survey results)

According to the survey results, out of 221 enterprises, 28 adopt the ABC method, accounting for 12.7%, while the remaining 193 enterprises do not adopt it, accounting for 87.3%. These statistical results indicate that the application of the ABC method in garment enterprises in the Mekong Delta region remains very limited.

4.2. Current status of factors affecting the adoption of the Activity-Based Costing (ABC) method in garment enterprises in the Mekong Delta region

4.2.1. Scale reliability analysis and evaluation using Cronbach's alpha coefficient

Based on the collected data, the author coded and entered the data into SPSS 23 software and conducted scale reliability tests for the factors in the research model using the following criteria: Cronbach's Alpha coefficient and corrected item-total correlation. A scale achieves reliability when the Cronbach's Alpha coefficient is greater than 0.6 and the corrected item-total correlation coefficient of the observed variables is greater than 0.3.

4.2.1.1. Cronbach's alpha reliability test for independent variables

After running Cronbach's alpha, all scales exhibited corrected item-total correlation coefficients greater than 0.3 and Cronbach's alpha coefficients greater than 0.7 (Table 4.2). This indicates that the observed variables across all scales meet the required reliability criteria. Therefore, all 28 observed variables for the 8 independent variables were retained for PLS-SEM regression analysis.

Table 4.2. Cronbach's alpha analysis results for independent variables

Observed Variable / Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Competition				<i>(Cronbach's Alpha = 0.858)</i>
Top Management Support				<i>(Cronbach's Alpha = 0.845)</i>
Perception of the ABC Method				<i>(Cronbach's Alpha = 0.885)</i>
Training and Education				<i>(Cronbach's Alpha = 0.836)</i>
Technical Conditions				<i>(Cronbach's Alpha = 0.850)</i>
Implementation Resources				<i>(Cronbach's Alpha = 0.825)</i>
Firm Size				<i>(Cronbach's Alpha = 0.839)</i>

(Source: Extracted from SPSS analysis results)

4.2.1.2. Cronbach's alpha reliability test for dependent and outcome variables

After running Cronbach's alpha, all scales for the dependent variable (DV) and outcome variable (OV) exhibited corrected item-total correlation coefficients greater than 0.3 and Cronbach's alpha coefficients greater than 0.7 (Table 4.3). This indicates that the observed variables across all scales meet the required reliability criteria. Therefore, all observed variables for both the dependent variable and outcome variable were retained for PLS-SEM regression analysis.

Table 4.3. Cronbach's alpha analysis results for dependent and outcome variables

Observed Variable / Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Adoption of the ABC Method				(Cronbach's Alpha = 0.837)
Financial performance of the enterprise				(Cronbach's Alpha = 0.890)

(Source: Extracted from SPSS analysis results)

Thus, through the Cronbach's alpha analysis, all 36 observed variables belonging to the above 9 factors (7 independent factors, 1 dependent factor, and 1 outcome factor) met the requirements for Cronbach's alpha coefficient and corrected item-total correlation, and were therefore retained for subsequent PLS-SEM regression analysis.

4.2.2. Regression Analysis

Testing the structural model

+ Testing the impact of factors on the adoption of the Activity-Based Costing (ABC) method in garment enterprises in the Mekong Delta region

When performing operations in SmartPLS 3 software, the research model and hypotheses were tested using bootstrapping with replacement with 5,000 resamples. In addition, to evaluate the quality of the model, f^2 and Q^2 values were calculated to

determine the impact of exogenous variables on endogenous variables and to assess the explanatory power and predictive relevance of endogenous latent variables (Hair et al., 2017). The results in Table 4.4 show that the f^2 values of the exogenous variables (independent variables) affecting the endogenous variables (dependent variable + outcome variable) ranged from 0.027 to 0.584, exceeding the 0.015 threshold for significant impact. The Q^2 values for the DV and OV were 0.570 and 0.368, respectively—falling near/within the optimal impact range of [0.25, 0.50]. This result indicates that the model has relatively high predictive accuracy and is acceptable.

Table 4.4. Testing of f^2 and Q^2 coefficients

	Hệ số f^2		Hệ số Q^2		
	HQ	VD	SSO	SSE	$Q^2 (=1-SSE/SSO)$
1. CT		0.062	884	884	
2. HQ			1105	697.842	0.368
3. HL		0.037	884	884	
4. NL		0.027	663	663	
5. NT		0.057	1105	1105	
6. QM		0.092	663	663	
7. HT		0.031	663	663	
8. VD	0.584		663	284.912	0.570
9. KT		0.063	1326	1326	

(Source: Extracted from SmartPLS analysis results)

The PLS-SEM estimation results both before and after bootstrapping with 5,000 resamples show that hypotheses H1, H2, H3, H4, H5, H6, and H7 in the research model are all supported (See Figures 4.1 and 4.2).

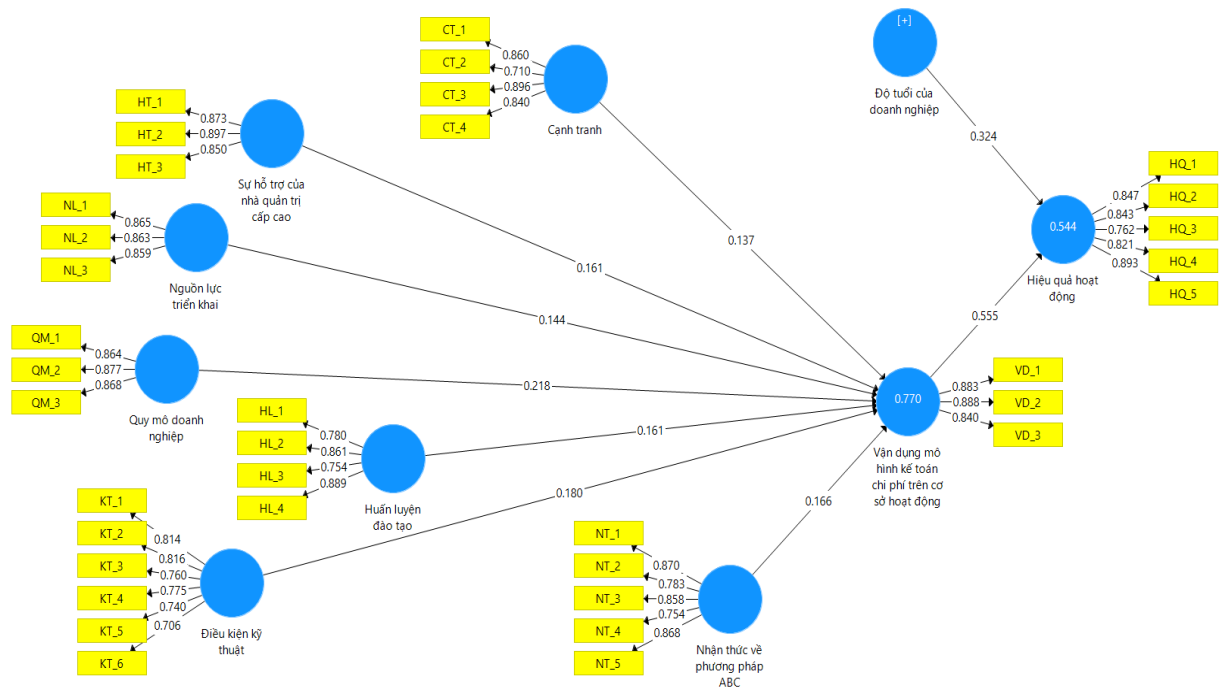


Figure 4.1. PLS-SEM estimation results using the Partial Least Squares

Algorithm

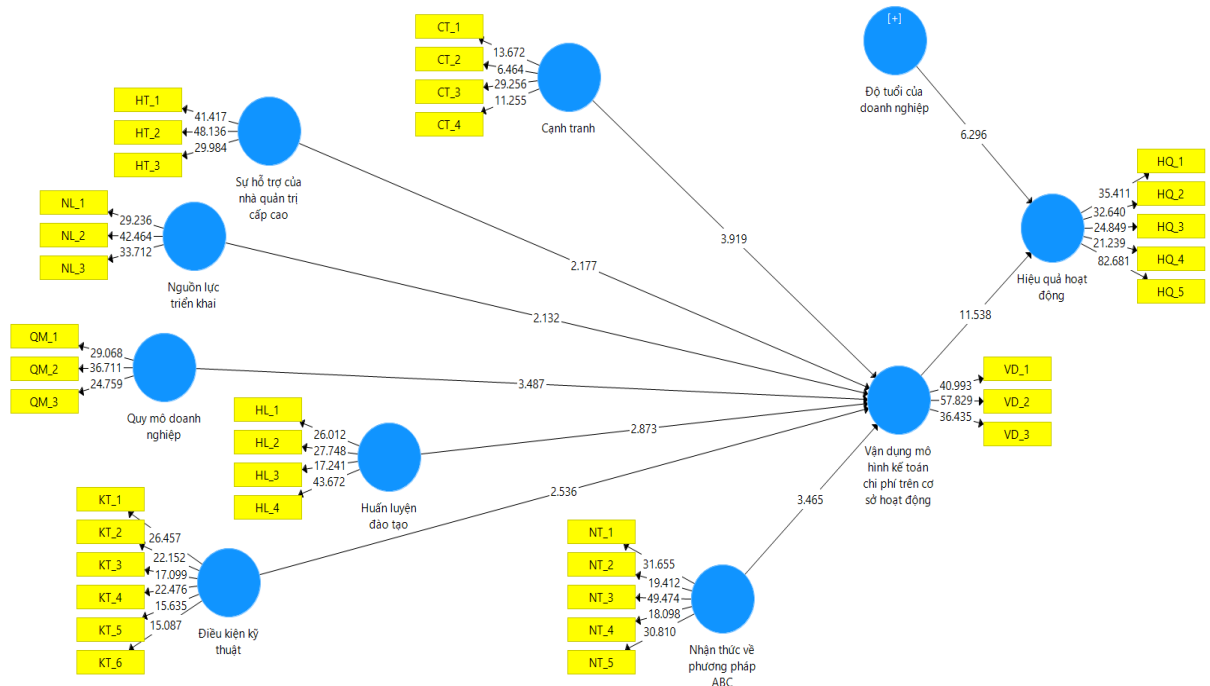


Figure 4.2. PLS-SEM estimation results with 5,000 bootstrap resamples

The research results indicate that the model of factors impacting the dependent variable (DV) meets the required goodness of fit ($R^2 = 0.770$; Adjusted $R^2 = 0.762$). This means that 76.2% of the variance in the adoption of the ABC accounting method in garment enterprises in the Mekong Delta region is explained by the variance of seven independent variables—namely Competition, Top Management Support, Perception of the ABC Method, Training and Education, Technical Conditions, Resources, and Firm

Size—at a 95% confidence level. The remaining 23.8% is explained by variables outside the model and random error.

Table 4.5. Hypothesis testing results for impacting factors

Hypothesis	Beta Coefficient	t-value	p-value	Decision
H1: CT → VD	0.137	3.919	0.000	Supported (+)
H2: HT → VD	0.161	2.177	0.030	Supported (+)
H3: NT → VD	0.166	3.465	0.001	Supported (+)
H4: HL → VD	0.161	2.873	0.004	Supported (+)
H5: KT → VD	0.180	2.536	0.011	Supported (+)
H6: NL → VD	0.144	2.132	0.033	Supported (+)
H7: QM → VD	0.218	3.487	0.000	Supported (+)

(Source: Extracted from SmartPLS analysis results)

Based on the regression coefficient analysis results in Table 4.5, the partial regression coefficients for Competition, Top Management Support, Perception of the ABC Method, Training and Education, Technical Conditions, Resources, and Firm Size are all statistically significant (p-value of the t-test < 0.05). Therefore, these seven variables are all utilized to explain the relationship between the independent variables and the dependent variable, which is the adoption of the ABC accounting method in garment enterprises in the Mekong Delta region.

Through the above tests, it is evident that the model representing the relationships among Competition, Top Management Support, Perception of the ABC Method, Training and Education, Technical Conditions, Resources, and Firm Size does not violate the underlying assumptions of linear regression and is fit for the population. The model is statistically significant at the 95% confidence level and features seven positive partial regression coefficients. This implies that as Competition, Top Management Support, Perception of the ABC Method, Training and Education, Technical Conditions,

Resources, and Firm Size increase, the adoption of ABC accounting in garment enterprises in the Mekong Delta region increases correspondingly.

The regression equation is written as follows:

$$VD = 0,137*CT + 0,161*HT + 0,166*NT + 0,161*HL + 0,180*KT + 0,144*NL + 0,218*QM$$

+ Testing the level of impact of Activity-Based Costing (ABC) application on the financial performance of garment enterprises in the Mekong Delta region and its mediating effects.

The results in Figure 4.1 indicate that the model fit for the effect of Activity-Based Costing (ABC) application on the financial performance (HQ) variable in garment enterprises in the Mekong Delta meets the required threshold ($R^2 = 0.544$; adjusted $R^2 = 0.540$). This means that 54% of the variance in the financial performance of garment enterprises in the Mekong Delta is explained by the variance in ABC application at a 95% confidence level, while the remaining 46% is explained by the control variable (firm age) and other variables.

Table 4.6. Testing hypotheses on financial performance and mediating effects

Hypothesis	Beta Coefficient	t-value	p-value	LL CI (2,5%)	UL CI (97,5%)	Decision
H8a: VD → HQ	0.555	11.538	0.000			Supported (+)
H8b: CT → VD → HQ	0.076	3.829	0.000	0.039	0.116	Supported (+)
H8c: HT → VD → HQ	0.089	2.078	0.038	0.007	0.174	Supported (+)
H8d: NT → VD → HQ	0.092	3.215	0.001	0.038	0.151	Supported (+)
H8e: HL → VD → HQ	0.089	2.785	0.005	0.030	0.154	Supported (+)
H8f: KT → VD → HQ	0.100	2.507	0.012	0.029	0.187	Supported (+)
H8g: NL → VD → HQ	0.080	2.121	0.034	0.012	0.160	Supported (+)
H8h: QM → VD → HQ	0.121	3.408	0.001	0.056	0.195	Supported (+)

(Source: Extracted from SmartPLS analysis results)

Based on the regression coefficient analysis results in Table 4.6, the regression coefficients for hypotheses H8a to H8h are all statistically significant (p-value of the t-test < 0.05). Additionally, for the mediation hypotheses, the 2.5% to 97.5% confidence

intervals (LL CI – UL CI) do not contain zero. These results further confirm that the mediation hypotheses are supported. Thus:

- (1) The adoption of ABC accounting has a significant positive effect on Financial performance in garment enterprises in the Mekong Delta region;
- (2) The adoption of ABC accounting plays a significant positive mediating role in the relationship between Competition, Top Management Support, Perception of the ABC Method, Training and Education, Technical Conditions, Resources, Firm Size, and Financial performance in garment enterprises in the Mekong Delta region.

CHAPTER 5. SOLUTIONS TO IMPROVE THE ADOPTION OF ACTIVITY-BASED COSTING (ABC) IN GARMENT ENTERPRISES IN THE MEKONG DELTA REGION

5.1. Solutions to improve the adoption of Activity-Based Costing (ABC) in garment enterprises in the Mekong Delta region

5.1.1. Approach based on firm size

First, for large-scale enterprises: Comprehensive and In-Depth Integration Strategy. Large-scale garment enterprises in the region possess superior advantages in financial resources and infrastructure, yet face immense pressure from overhead costs. The solution for this group is to leverage economies of scale to invest in a fully integrated ABC system.

Second, for small and medium-sized enterprises (SMEs): Simplification and Focus Strategy. The primary barrier for this group is limited resources, making them hesitant regarding the complexity of ABC. The solution is not to enforce full-scale ABC (Full ABC) implementation, but rather to apply lean versions of ABC (Simplified ABC) or Time-Driven Activity-Based Costing (TDABC).

5.1.2. Approach based on technical conditions

First, standardizing production processes and technical norms systems (Standardization). This is the most crucial foundational solution. An ABC system cannot operate on an arbitrary production process.

Second, restructuring cost centers linked to production lines. Technical conditions are also reflected in how assembly lines are organized.

Third, upgrading the information connectivity infrastructure between Production and Accounting. Practical reality in the Mekong Delta region shows that there is often an information disconnect between the technical department (holding technical norms) and the accounting department (holding financial figures).

5.1.3. Approach based on perception and managerial mindset regarding the ABC method

First, clarifying the core nature of ABC for executive leadership and middle management.

Second, popularizing ABC knowledge in a pragmatic, easily understandable manner. Perceptual barriers often arise from over-academicizing concepts.

Third, linking ABC implementation to the practical benefits of employees.

Fourth, promoting the role of local professional associations and advisory/consulting services.

5.1.4. Approach based on training and education

First, designing tailored training programs for specific target groups.

Second, implementing hands-on training series on the factory floor.

Third, building an internal trainer team (Internal Trainers).

Fourth, integrating training with periodic competency assessments.

5.1.5. Approach based on top management support

First, demonstrating commitment through tangible resources (Resource Commitment). The most practical support lies in financial and human resources.

Second, directly participating in direction and supervision (Active Participation). Executive presence in project meetings sends the strongest signal regarding the importance of ABC.

Third, acting as an arbiter in resolving conflicts (Conflict Resolution).

5.1.6. Approach based on optimizing implementation resources

First, flexibly mobilizing and allocating financial resources.

Second, optimizing internal human resources (Human Resource Leveraging).

Third, leveraging existing technology infrastructure.

Fourth, effectively managing the implementation timeline.

5.1.7. Approach based on competitive pressure

First, cultivating a mindset of competing through cost intelligence. Second, using ABC to optimize bidding strategies (Bidding Strategy). Third, orienting target markets and customers based on true profitability. Fourth, proactively anticipating new competitive standards (ESG, Greening).

5.1.8. Approach based on operational performance and mediating mechanisms

First, shifting the mindset from "Doing ABC" to "Using ABC" to improve operational performance. Second, integrating ABC into performance evaluation systems (KPIs) to close the impact chain. Third, leveraging ABC to capitalize on economies of scale. Fourth, establishing a continuous feedback loop to sustain long-term performance.

5.2. Recommendations

5.2.1. Recommendations for garment enterprises in the Mekong Delta region

First, recommendations regarding mindset and strategy: Executive management needs to transform their managerial mindset, moving from viewing accounting as a reactive compliance record-keeping tool to viewing management accounting and ABC as strategic tools for creating competitive advantage.

Second, recommendations regarding infrastructure and technology investment: Enterprises, particularly medium and large-scale ones, should prioritize budget allocation for digitizing production processes.

Third, recommendations regarding human resource development: Enterprises need to formulate structured training plans that combine in-house training with external expert advisory.

5.2.2. Recommendations for People's Committees, Departments of Industry and Trade, and Investment Promotion and Business Support Centers in Mekong Delta provinces

First, designing specialized and measurable soft investment support packages. Second, enhancing training and knowledge dissemination. Third, developing data infrastructure and regional connectivity.

5.2.3. Recommendations for Professional Associations

First, leading the development of ABC benchmarking frameworks in the Mekong Delta region. Second, establishing knowledge and resource-sharing networks. Third, organizing hands-on training programs. Fourth, providing policy advisory. Associations should actively gather feedback and challenges faced by enterprises during the adoption of new management accounting standards to make recommendations to state authorities, thereby contributing to refining the legal framework and fostering a favorable environment for business development.

5.2.4. Recommendations for the Ministry of Finance

First, refining and concretizing the legal framework for Management Accounting. Second, establishing mechanisms for industry standards and norm benchmarks. Third, innovating training curricula and professional practice standards. Fourth, aligning accounting reforms with the IFRS adoption roadmap and digital transformation. In the context of Vietnam moving toward the adoption of International Financial Reporting Standards (IFRS), the Ministry of Finance should guide enterprises to integrate ABC systems into this roadmap. The transparency and granularity of ABC will effectively support fair valuation and disclosure requirements under the stringent demands of IFRS. Simultaneously, policy incentives should be introduced to encourage enterprises to invest in management accounting/ERP software through tax incentives or accelerated depreciation.

5.3. Limitations of the Dissertation and Future Research Directions

Limitations of the dissertation:

First, regarding the research scope, the survey sample of the dissertation focuses solely on garment enterprises in the Mekong Delta region.

Second, regarding data collection methodology, the study utilizes cross-sectional data collected at a single point in time.

Future research directions:

Based on the above limitations, the author proposes several potential directions for future research:

First, expanding the geographical survey scope to other key economic regions or conducting comparative regional studies to gain a more comprehensive understanding of the management accounting landscape in Vietnam's garment industry.

Second, conducting longitudinal studies to track changes in operational performance before and after ABC adoption over an extended timeframe (3–5 years), thereby providing stronger empirical evidence regarding the long-term sustainability of the method.

These research avenues will contribute to refining theoretical frameworks and offering practical solutions to effectively support the development of Vietnam's textile and garment industry.

LIST OF SCIENTIFIC PUBLICATIONS BY THE PhD CANDIDATE

1. Nguyen, T. M. A. (2026). Activity-based cost accounting in garment manufacturing companies: Applications, comparative analysis, and future directions. *Vietnam Economic & Financial Review*. Vol 2, Issue 1, February, 2026, 92-96, ISSN: 3093 - 3722

2. Nguyen, T. M. A. (2026). The impact of activity-based costing on firm performance: A comprehensive review. *Journal of Finance & Accounting Research*, No.02 (39) – April, 2026, 68-72.

3. Nguyen, T. M. A. (2026). Antecedents and performance consequences of Activity-Based Costing in the Vietnamese garment industry. *Vietnam Economic & Financial Review*. Vol 2, Issue 2, April, 2026, 105-108, ISSN: 3093 - 3722