


FACTORS AFFECTING THE IMPLEMENTATION OF ACTIVITY-BASED COSTING SYSTEMS IN BUSINESSES

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ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 07 April 2023</p> <p>Accepted 07 July 2023</p>	<p>Purpose: The article analyzes the impact of factors affecting the application of an activity-based cost accounting system in Vietnamese food and beverage enterprises.</p> <p>Theoretical framework: This paper uses the activity-based costing system.</p>
<p>Keywords:</p> <p>Cost Accounting System; Food and Beverage Enterprises; Vietnam.</p> <div data-bbox="172 920 480 1167" style="text-align: center;">  </div>	<p>Design/Methodology/Approach: The research method uses a questionnaire survey of accountants, chief accountants, business managers of Vietnamese food and beverage enterprises. After the survey results are available, data processing is performed by statistical methods to determine the weight and frequency of the selected factors, and the data is processed on SPSS statistics 25 software to estimate the impact of the selected factors affecting the application of the operation-based cost accounting system in Vietnamese food and beverage enterprises.</p> <p>Findings: Research results show that Relative advantage, Enterprise size, Role of cost information, Employee training, Information technology quality, Manager's support have a positive impact on system application. cost accounting system based on activity in Vietnamese food and beverage enterprises, in which the support of managers is the influencing factor with the largest regression coefficient.</p> <p>Research, practical & social implications: Based on the research results, the author has proposed recommendations to minimize the negative impact of these pressures in order to limit the occurrence of violations of professional ethics of Vietnamese auditors.</p> <p>Originality/Value: Based on the research results, the author has proposed recommendations to improve the application of the activity-based cost accounting system in Vietnamese food and beverage enterprises.</p> <p>Doi: https://doi.org/10.26668/businessreview/2023.v8i7.2787</p>

FATORES QUE AFETAM A IMPLEMENTAÇÃO DE SISTEMAS DE CÁLCULO DE CUSTOS POR ATIVIDADE NAS EMPRESAS

RESUMO

Objetivo: O artigo analisa o impacto dos fatores que afetam a aplicação de um sistema de contabilidade de custos por atividade nas empresas vietnamitas do setor alimentar e das bebidas.

Estrutura teórica: Este documento usa o sistema de cálculo de custos baseado em atividades.

Design/Metodologia/Abordagem: O método de pesquisa usa um questionário de contadores, contadores-chefes, gerentes de negócios de empresas vietnamitas de alimentos e bebidas. Depois que os resultados da pesquisa estiverem disponíveis, o processamento de dados é realizado por métodos estatísticos para determinar o peso e a frequência dos fatores selecionados, e os dados são processados em software de estatísticas SPSS 25 para estimar o impacto dos fatores selecionados que afetam a aplicação do sistema de contabilidade de custos com base em operações em empresas vietnamitas de alimentos e bebidas.

Resultados: Os resultados da pesquisa mostram que a vantagem relativa, o tamanho da empresa, a função das informações de custo, o treinamento do funcionário, a qualidade da tecnologia da informação, o suporte do gerente têm um impacto positivo na aplicação do sistema. sistema de contabilização de custos baseado na atividade em

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empresas vietnamitas de alimentos e bebidas, em que o suporte dos gerentes é o fator de influência com o maior coeficiente de regressão.

Pesquisa, prática e social implicações: Com base nos resultados da pesquisa, o autor propôs recomendações para minimizar o impacto negativo dessas pressões, a fim de limitar a ocorrência de violações da ética profissional dos auditores vietnamitas.

Originalidade/Valor: Com base nos resultados da pesquisa, o autor propôs recomendações para melhorar a aplicação do sistema de contabilidade de custos com base em atividades em empresas vietnamitas de alimentos e bebidas.

Palavras-chave: Sistema de Contabilização de Custos, Empresas de Alimentos e Bebidas, Vietnã.

FACTORES QUE AFECTAN A LA APLICACIÓN DE LOS SISTEMAS DE CÁLCULO DE LOS COSTOS EMPRESARIALES

RESUMEN

Objetivo: El artículo analiza el impacto de los factores que afectan la implementación de un sistema de contabilidad de costos basado en actividades en las empresas vietnamitas de alimentos y bebidas.

Estructura teórica: Este documento utiliza el sistema de cálculo de costes basado en la actividad.

Diseño/Metodología/Enfoque: El método de investigación utiliza un cuestionario de contadores, contables principales, gerentes de empresas vietnamitas de alimentos y bebidas. Una vez que se dispone de los resultados de la encuesta, el procesamiento de los datos se realiza mediante métodos estadísticos para determinar el peso y la frecuencia de los factores seleccionados, y los datos se procesan en programas informáticos de las estadísticas de SPSS 25 para estimar el impacto de los factores seleccionados que afectan a la aplicación del sistema de contabilidad de costos basado en las operaciones en empresas vietnamitas de alimentos y bebidas.

Resultados: Los resultados de la encuesta muestran que la ventaja relativa, el tamaño de la empresa, la función de información de costos, la capacitación de los empleados, la calidad de la tecnología de la información y el apoyo a los administradores tienen un impacto positivo en la aplicación del sistema. sistema de contabilidad de costos basado en la actividad en las empresas vietnamitas de alimentos y bebidas, donde el apoyo a los administradores es el factor de influencia con el coeficiente de regresión más alto.

Investigación, práctica y social implicaciones: Sobre la base de los resultados de la encuesta, el autor propuso recomendaciones para reducir al mínimo los efectos negativos de esas presiones a fin de limitar la existencia de violaciones de la ética profesional de los auditores vietnamitas.

Originalidad/Valor: Sobre la base de los resultados de la investigación, el autor propuso recomendaciones para mejorar la aplicación del sistema de contabilidad de costos basado en las actividades de las empresas vietnamitas de alimentos y bebidas.

Palabras clave: Sistema de contabilidad de costos, empresas de alimentos y bebidas, Vietnam.

INTRODUCTION

In the context of the current market economy, it is extremely important and urgent to strengthen the competitive strength of enterprises against competitors. If businesses want to maintain their competitive position in terms of market share, products, quality, etc., they need to have a management system and strictly control their business activities. To ensure that, managers always update in a timely and most accurate way the fluctuating information about the business performance of the business such as revenue, costs, profit, etc. To make the best strategic decisions, it is extremely important to use a modern and more accurate cost accounting system than a traditional cost accounting system. Therefore, it is extremely necessary to apply a new cost accounting system - ABC activity-based cost accounting system.

ABC system is an activity-based cost accounting system that has a long history of formation and development and has been successfully applied in many businesses in developed countries around the world. Because of the advantages it offers over conventional cost accounting systems, namely, it has provided a more accurate method of recognizing and allocating resources. Indirectly, support costs in the process of production and business activities that traditional cost accounting methods face many difficulties in handling. Under traditional cost accounting, the allocation of indirect costs is allocated through the cost objects of materials and labor costs. Meanwhile, with the activity-based costing method, indirect costs are recognized and allocated based on the activities that cause the costs. With the method of direct recognition of activities that generate such costs, it will help to record indirect costs incurred at the enterprise more accurately and clearly. From there, contributing to the information related to decision making will be provided in a timely manner and with higher accuracy. Therefore, this system has been used by managers in many businesses around the globe. However, in Vietnam in general and in the food and beverage industry in particular, the ABC system is not really popular in businesses.

LITERATURE REVIEW

Implementation of the Activity-based Costing System

Since the 1980s, researchers have been interested in implementing cost accounting systems (Al-Omiri & Drury, 2007). The activity-based cost accounting (ABC) system provides more accurate cost information than the traditional cost accounting system (Kaplan & Atkinson, 1998; Huynh & Gong, 2014). Three essential functions of a cost accounting system are better performed than in an activity-based cost accounting system (Robert & Robin, 1998). At the same time, the business manager can determine which activities do not generate costs, which generate revenue, and which consume costs in the business's operating cycle. From there, appropriate decisions are made to help increase profits for the business (Kock, S., 1995; Raz & Elnathan, 1999). However, because the implementation technique of the ABC system has many complicated problems, as well as the high investment cost, many companies have refused to accept the implementation of a new system (Innes et al., 2000). Lack of knowledge about ABC; having problems identifying cost drivers; difficulty identifying activities; and having priority Higher priority for other projects are also why enterprises do not use the ABC system (Rundora et al., 2013).

ABC users are highly satisfied with the benefits of the ABC system (Chongruksut, W., & Brooks, A., 2005). Increasing competition, increasing costs, and the inability of traditional costing systems to provide information to managers in the new environment have pushed businesses to adopt activity-based costing accounting systems. Behavioral and organizational variables, and support from senior management, play a vital role in the successful implementation of the ABC system. Research by Sartorius et al. (2007) has shown that the performance of ABC depends on factors such as the company's size, the level of competition, and the fixed cost norm. Research by Elhamma, A. (2012) shows that in different countries, the acceptance rate of the ABC method is also different and, in general, is still very limited.

In Vietnam, managers are not satisfied with enterprises' current cost allocation method (Soa. N.L., 2018). Implementing the ABC method has encountered some difficulties, such as a lack of people, resources, high costs, and the identification of cost drivers. Among them, the lack of human resources is the most difficult. This business had difficulty finding qualified accountants who understood and had skills in the ABC method. Empirical research by Tran, T. U. (2019) shows Enterprise Size, Cost Structure, Product Diversity, Competitiveness, Importance of Information, and The degree of automation that affects the adoption of activity-based cost accounting systems. Businesses that use the ABC system will significantly improve their business performance (Tran, T., & Thao, N., 2020). Some studies on factors affecting the implementation of the ABC system in Vietnamese enterprises have been published, but studies on each field and industry are still not widespread.

Factors Affecting the Implementation of Activity-based Costing Systems

Comparative Advantage. For an enterprise, when it wants to implement a new system, it always arises whether the new system (ABC) will bring more benefits than the current system the business uses or not—economic benefits and social prestige factors (Brown et al., 2004). Managers will be prepared to overcome barriers and difficulties in the design and operation process when determining the benefits of ABC.

Firm Size. Research by Moores and Chenhall (1994) indicates that firm size is essential to adopting more complex management systems. The ABC system is easier to accept in large enterprises (Innes & Mitchell, 1995; Bjørnenak, 1997; Malmi, 1999; Al-Omiri and Drury, 2007). Large enterprises have the necessary infrastructure and many information channels to meet the requirements of the ABC system.

Role Of Cost Information. The role of cost information is one of the factors affecting the implementation of cost accounting systems because decision-making requires increasingly accurate information. Meanwhile, activity-based cost accounting systems provide cost information useful for decision-making and more precise information than traditional cost accounting systems (Kaplan and Atkinson, 1998). Experimental research by Al-Omiri and Drury (2007) and Binaebi et al. (2013) shows the relationship between the ABC system and cost information.

Employee training. ABC requires employees' ability (Kaplan & Anderson, 2004; Huynh & Gong (2014). Accountants directly implement and apply the new accounting system to the business. Using the ABC method in companies requires accountants with knowledge through regularly organized training and coaching programs (Shields, 1995; Hung, N. V., 2017).

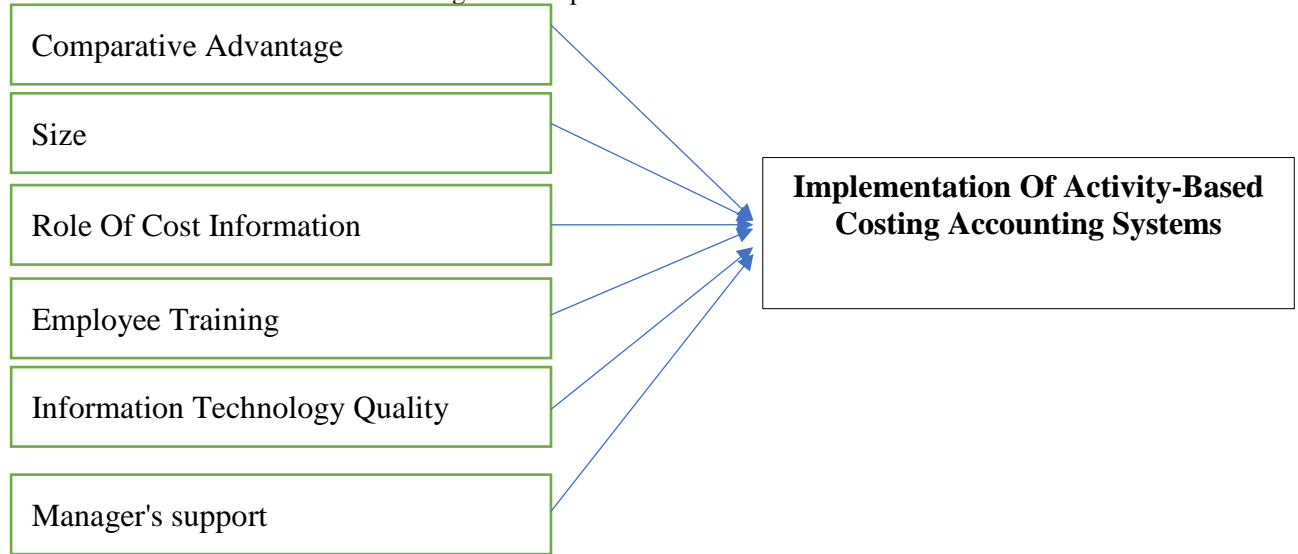
Information Technology Quality. The level of information technology can play an essential role in influencing system design costs. Because when the cost of data collection and processing is reduced, complex costing systems are more advantageous (Cooper, 1989). Companies with quality databases can more easily implement and maintain ABCs (Anderson, 1995).

Manager's support. With the help of the Board of Directors, the success rate of the ABC system in the organization will increase significantly (Needy et al., 2003; Binaebi et al., 2013). Managers are people who directly use information from the ABC system for decision-making. Therefore, successfully implementing the system requires support from the company's management (Anderson & Young, 1999).

Research Model and Hypothesis

Based on previous studies on the use of management accounting information in enterprises, the author proposes the following research model:

Figure 1. Proposed research model



Source: Author's proposal

Research hypotheses:

H₁: Relative advantage has a positive effect on the adoption of activity-based costing

H₂: Firm size positively affects the adoption of activity-based costing.

H₃: The role of cost information positively affects the adoption of activity-based costing systems.

H₄: Employee training positively affects the adoption of activity-based cost accounting.

H₅: Information technology quality positively affects the adoption of activity-based cost accounting..

H₆. Managerial support positively affects the adoption of activity-based costing.

The multivariate regression equation showing the relationship between the variables in the proposed model is as follows:

$$IAS = + *CA + *SZ + *RCI + *ET + *ITQ + MS + E$$

In which:

IAS: dependent variable - adopt an activity-based costing system;

CA: Comparative Advantage;

SZ: Firm Size;

RCI: Role Of Cost Information;

ET: Employee Training;

ITQ: Information Technology Quality;

MS: Manager's support: constant;

E: residual.

METHODOLOGY

Research methods used include survey through questionnaires, survey subjects include accountants, chief accountants, business managers. Adoption of activity-based cost accounting, Relative advantage, Firm size, Role of cost information, Employee training, Quality of information technology, Home support Management is measured on a five-point Likert scale Very good, good, average, not good, weak. The 5-level Likert scale is familiarly used in many studies, so the author also quantifies each factor according to five levels. After the survey results are available, perform data processing by statistical methods to determine the weight and frequency of selected factors, process the data on SPSS statistics 25 software, analyze the reliability of the data. factors as well as factor measurement criteria, and at the same time apply statistical methods to synthesize and compare to estimate the impact of factors affecting the application of a cost accounting system based on the operations at Vietnamese food and beverage enterprises.

The scope of the research is Vietnamese food and beverage enterprises. Research data is collected in the form of face-to-face interviews and email interviews with accountants, chief accountants, business managers. The survey results collected 292 questionnaires. After discarding the invalid questionnaires due to many empty cells, the author chose to use 274 questionnaires.

RESULTS AND DISCUSSION

Check the Scale

The results of evaluating the reliability of the scale by Cronbach's Alpha show that the scales have a reliability greater than 0.6 and the correlation coefficient of the total variable is greater than 0.3. All scales satisfy the conditions for EFA exploratory factor analysis. The reliability of the scales is summed up in the table below.

Table 1: Results of testing the scale

No.	Variable name	Symbol	Number of observed variables	Cronbach's Alpha coefficient	Minimum total variable correlation coefficient
1	Adopt an activity-based costing system	IAS	4	0.732	0.451
2	Relative advantage	CA	3	0.754	0.497
3	Enterprise size	SZ	3	0.654	0.380

4	The role of cost information	RCI	4	0.857	0.616
5	Training Employees	ET	3	0.824	0.653
6	Information technology quality	ITQ	5	0.769	0.449
7	Manager's support	MS	4	0.699	0.388

Source: Prepared by the authors (2023).

EFA Exploratory Factor Analysis

Table 2. EFA analysis

Rotated Component Matrix ^a						
	Component					
	1	2	3	4	5	6
RCI4	.891					
RCI3	.832					
RCI2	.829					
RCI1	.726					
ITQ4		.691				
ITQ3		.675				
ITQ5		.669				
ITQ2		.649				
ITQ1		.502				
ET1			.872			
ET2			.843			
ET3			.831			
MS2				.737		
MS4				.706		
MS1				.702		
MS3				.567		
CA2					.802	
CA1					.778	
CA3					.739	
SZ2						.838
SZ1						.759
SZ3						.621

Source: Prepared by the authors (2023).

Factor analysis was performed with Principle Component extraction, Varimax rotation for the dependent observed variable. The results show that the coefficient KMO = 0.786 (condition > 0.5); Significance level and Barlett test = 0.000 (condition < 0.05) shows that EFA analysis is appropriate. Total variance extracted is 63.638% > 50%; and factor loading factors are all greater than 0.5, so they are satisfactory. The official scale after EFA processing includes 6 independent variables with 22 observed variables as proposed.

Regression Analysis

Table 3. Statistical results of factors

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.847 ^a	.717	.648	.46977	1.713

Source: Prepared by the authors (2023).

The adjusted R square reflects the influence of the independent variables on the variation of the dependent variable, in this case the factors Relative advantage, Firm size, Role of cost information, Employee training, Information technology quality, Management support influenced 71.7% to the application of activity-based cost accounting system in Vietnamese food and beverage enterprises. The Durbin-Watson coefficient is 1,713, in the range from 1.5 to 2.5, so there is no first-order sequence autocorrelation.

In order to check whether this regression model is suitable with the collected data set and has application significance, the author continues to test the model's fit through ANOVA test as follows:

Table 4: Test of model fit (ANOVA model)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	74.394	6	12.399	56.185	.000 ^b
	Residual	58.922	267	.221		
	Total	133.316	273			

Source: Prepared by the authors (2023).

The model's F-statistic has a Sig value. = 0.000 < 0.05 shows that the model fits the data set and can be generalized. VIF coefficients are all less than 2, so there is no multicollinearity between components that do not appear in the research model.

Regression results showing the influence of factors on the application of the activity-based cost accounting system in Vietnamese food and beverage enterprises are shown in the table below:

Table 5: Multiple regression results

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.158	.248		.637	.000		
	CA	.140	.040	.159	3.463	.001	.789	1.267
	SZ	.109	.053	.107	3.161	.002	.849	1.178

RCI	.151	.035	.193	4.298	.000	.823	1.215
ET	.182	.030	.166	2.736	.000	.916	1.092
ITQ	.193	.059	.176	3.262	.001	.569	1.757
MS	.418	.046	.247	9.184	.000	.700	1.428

Source: Prepared by the authors (2023).

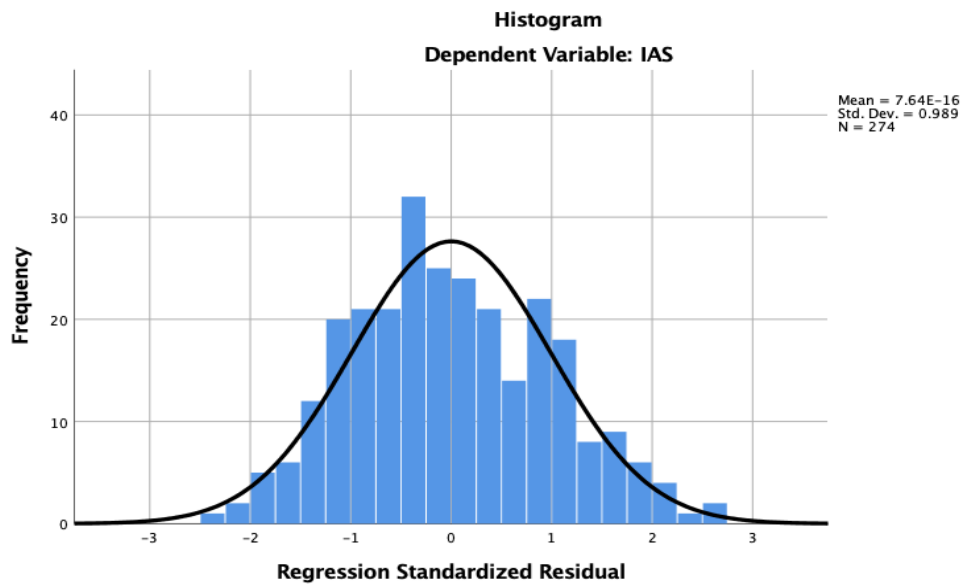
The sig test value for each independent variable < 0.05: all variables are significant in the model.

Beta coefficients are all positive: all variables have the same effect on the dependent variable

The regression model is written as follows:

$$IAS = 0,158 + 0,159CA + 0,107SZ + 0,193RCI + 0,166ET + 0,176ITQ + 0,247MS + E$$

Figure 2. Normalized residual frequency plot



Source: Prepared by the authors (2023).

CONCLUSION

Based on the results of quantitative research on factors affecting the application of the activity-based cost accounting system in Vietnamese food and beverage enterprises, the following conclusions can be drawn:

The multiple linear regression equation extracted by the standardized Beta coefficient shows that the standardized Beta coefficients of the factors are: Relative advantage (0.159), Firm size (0.107), Role of information Cost information(0.193), Employee training (0.166), Information technology quality (0.176), Management support (0.247). In which, the support of

managers to apply an operation-based cost accounting system in Vietnamese food and beverage businesses

From the results of the study of factors affecting the application of an activity-based cost accounting system in Vietnamese food and beverage businesses, the author makes some recommendations to improve such as: after:

To successfully implement the ABC system, the manager must first understand the importance and benefits that the ABC system brings to the participating units, the information technology system requirements need to be provided. The manager's support is reflected in the support of resources for implementation such as finance, facilities, and human resources. In addition, food and beverage businesses need to determine that the implementation of the ABC system will bring benefits in the long term. In the future, when the scale of the business expands, it can be easily adjusted to suit information requirements through more complex and modern ABC models. To apply ABC system, enterprises must first realize the importance of cost accounting information and cost accounting information provided by ABC system to be accurate and timely. However, to do the above, businesses need to focus on developing management accounting and building a good information technology system, clearly and specifically planning strategies and budgeting. Enterprises need to know how to fully exploit the information provided from the ABC system for decision-making purposes.

REFERENCES

- Al-Omiri, M., & Drury, C. (2007). A survey of factors influencing the choice of product costing systems in UK organizations. *Management accounting research*, 18(4), 399-424. <https://doi.org/10.1016/j.mar.2007.02.002>
- Anderson, S. W., & Young, S. M. (1999). The impact of contextual and process factors on the evaluation of activity-based costing systems. *Accounting, organizations and society*, 24(7), 525-559. [https://doi.org/10.1016/S0361-3682\(99\)00018-5](https://doi.org/10.1016/S0361-3682(99)00018-5)
- Binaebi, B. (2013). Analysis of factors influencing activity-based costing implementations in the hospitality industry in Yenagoa, Nigeria. *Asian Journal of Business Management*, 5(3), 284-290.
- Bjørnenak, T. (1997). Diffusion and accounting: the case of ABC in Norway. *Management accounting research*, 8(1), 3-17. Diffusion and accounting: the case of ABC in Norway. *Management accounting research*, 8(1), 3-17
- Brown, D. A., Booth, P., & Giacobbe, F. (2004). Technological and organizational influences on the adoption of activity-based costing in Australia. *Accounting & Finance*, 44(3), 329-356. <https://doi.org/10.1111/j.1467-629x.2004.00118.x>

- Chongruksut, W., & Brooks, A. (2005). The adoption and implementation of activity-based costing in Thailand. *Asian review of accounting*, 13(2), 1-17. <https://doi.org/10.1108/eb060784>
- Cooper, R. (1989). The rise of activity-based costing-part three: how many cost drivers do you need, and how do you select them?. *Cost Management*.
- Elhamma, A. (2012). The Activity Based Costing in Morocco: Adoption and Diffusion\Oman Chapter of *Arabian Journal of Business and Management Review*.-2012, Vol. 1, No. 6, Pp. 80-87. Sohar University.
- Faraji, T., Maghari, A., & Mirsepasi, N. (2015). A framework for assessing cost management system changes: the case of activity-based costing implementation at food industry. *Management Science Letters*, 5(4), 413-418. DOI: [10.5267/j.msl.2015.1.017](https://doi.org/10.5267/j.msl.2015.1.017)
- Hung, N. V. (2017). Factors hindering the application of the method of cost allocation based on activity level in Vietnamese enterprises (Doctoral dissertation, University of Economics Ho Chi Minh City).
- Huynh, T., Gong, G., & Huynh, H. (2014). Suggest Solutions for Diffusion and Implementation of Activity-Based Costing In Vietnam. *Asian Economic and Financial Review*, 4(2), 173. <http://opac.ueh.edu.vn/record=b1025363~S1>
- Innes, J., & Mitchell, F. (1995). A survey of activity-based costing in the UK's largest companies. *Management accounting research*, 6(2), 137-153. <https://doi.org/10.1006/mare.1995.1008>
- Innes, J., Mitchell, F., & Sinclair, D. (2000). Activity-based costing in the UK's largest companies: a comparison of 1994 and 1999 survey results. *Management Accounting Research*, 11(3), 349-362. <https://doi.org/10.1006/mare.2000.0135>
- Kaplan, R. S., & Anderson, S. R. (2004). Time-Driven Activity-Based costing. *Harvard Business Review*, 1-9.
- Kaplan, R. S., & Atkinson, A. A. (1998). *Advanced Management Accounting*, 3 Prentice-Hall. USA.
- Kock, S. (1995). Implementation considerations for activity-based cost systems in service firms: the unavoidable challenge. *Management Decision*, 33(6), 57-63. <https://doi.org/10.1108/00251749510087669>
- Malmi, T. (1999). Activity-based costing diffusion across organizations: an exploratory empirical analysis of Finnish firms. *Accounting, organizations and society*, 24(8), 649-672. [https://doi.org/10.1016/S0361-3682\(99\)00011-2](https://doi.org/10.1016/S0361-3682(99)00011-2)
- Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information systems research*, 2(3), 192-222. <https://doi.org/10.1287/isre.2.3.192>
- Needy, K. L., Nachtman, H., Roztocki, N., Warner, R. C., & Bidanda, B. (2003). Implementing activity-based costing systems in small manufacturing firms: A field study.

Engineering Management Journal, 15(1), 3-10.
<https://doi.org/10.1080/10429247.2003.11415190>

Raz, T. & Elnathan, D. (1999). Activity-Based Costing For Projects. *International Journal of Project Management*, 17(1) 61-67. [https://doi.org/10.1016/S0263-7863\(97\)00073-2](https://doi.org/10.1016/S0263-7863(97)00073-2)

Robert S. Kaplan, & Robin Cooper. (1998). *Cost & effect: using integrated cost systems to drive profitability and performance*. Harvard Business Press.

Rundora, R., Ziemerink, T., & Oberholzer, M. (2013). Activity-based costing in small manufacturing firms: South African study. *Journal of Applied Business Research (JABR)*, 29(2), 485-498. DOI <https://doi.org/10.19030/jabr.v29i2.7652>

Sartorius, K., Eitzen, C., & Kamala, P. (2007). The design and implementation of Activity Based Costing (ABC): a South African survey. *Meditari: Research Journal of the School of Accounting Sciences*, 15(2), 1-21. <https://hdl.handle.net/10520/EJC72538>

Shields, M. D. (1995). An empirical analysis of firms' implementation experiences with activity-based costing. *Journal of management accounting research*, 7(1), 148-165. <https://www.proquest.com/docview/210177162?pq-origsite=gscholar&fromopenview=true>

Soa. N.L., (2018). Factors affecting the applicability of ABC method: A case study of Vietnamese enterprises. *Journal of Science and Technology*, Hanoi University of Industry.

Trần, T. U. (2019). Nghiên cứu các nhân tố ảnh hưởng tới việc áp dụng phương pháp kế toán ABC tại các doanh nghiệp sản xuất dược phẩm Việt Nam. <https://dlib.neu.edu.vn/handle/NEU/34912>

Tran, T., & Thao, N. (2020). Factors affecting the implementation of ABC costing method in manufacturing firms in Vietnam. *Management Science Letters*, 10(11), 2625-2634. DOI: [10.5267/j.msl.2020.3.030](https://doi.org/10.5267/j.msl.2020.3.030)