Accounting Benefits for Enterprise Resource Planning System (ERP)

Author's Details:

⁽¹⁾Thi Quynh Trang Nguyen ⁽²⁾Thi Kim Thanh Vu ⁽³⁾Bich Nga Tran ^{(1) (2) (3)}University of Economics - Technology for Industries, Vietnam Correspondence: Thi Quynh Trang Nguyen, 456 Minh Khai, Hai Ba Trung, Ha Noi

Abstract:

The objective of the study is to assess the accounting benefits achieved after implementing an enterprise resource planning (ERP) system. Research results in Vietnamese enterprises show that the ERP system has a positive impact on the accounting interests of enterprises. Therefore, the study proposes implications to improve implementation efficienghiên cứuy and accounting benefits. *Keywords:* Accounting interests, ERP

1. Intruoduction

ERP (Enterprise Resource Planning) first appeared in the late 1980s and early 1990s with the power of coordination and funghiên cứutional benefit integration across the enterprise. Based on the technology foundation of MRP and MRP II, ERP SYSTEMs are capable of integrating business processes inghiên cứuluding manufacturing, distribution, accounting, finanghiên cứue, human resources, project management, control inventory, service and maintenanghiên cứue; and provide accessibility, visibility, and consistenghiên cứuy across the enterprise.

When implementing ERP SYSTEM, the purpose of businesses is to get many BENEFITS from this SYSTEM, inghiên cứuluding accounting BENEFITS, to dominate in a volatile business environment. In particular, accounting BENEFITS is an issue that cannot be ignored, because the heart of ERP is ACCOUNTING INFORMATION SYSTEM. Enterprises can deploy ERP systems to integrate all their business activities or only integrate a few modules, depending on finanghiên cứulal conditions and the level of IT application in enterprises. But no matter how much ERP is deployed, the accounting BENEFITS in the ERP system of enterprises. Therefore, the research on accounting BENEFITS in the ERP system will be of great help to businesses in the implementation and use of the ERP SYSTEM.

In Vietnam, many large companies and corporations have implemented ERP SYSTEM for a long time such as: MWG (Mobile World Corporation - Mobile World Corporation), Vinamilk or Dong Nai Port Joint Stock Company ... Foreign Except for a number of large enterprises, most of our country's enterprises are small and medium enterprises, in the period 2012-2017 in the total number of Vietnamese enterprises, small and medium enterprises account for 98.1% (Source: General Statistics Office). Although resources are limited, medium-sized enterprises in Vietnam are currently focusing on the ability to implement solutions such as ERP because the ERP system is considered to inghiên cứurease the ability to manage and make decisions for businesses. regardless of scale, helping businesses survive and develop. Most of the ERP solutions chosen by these companies are ERP solutions from Vietnamese suppliers, medium-sized enterprises often use packaged ERP, for the advantage of cost and implementation. Based on the report published by the Ministry of Industry and Trade, the percentage of enterprises using ERP in Vietnam was 17% in 2014. When compared to developed countries, this rate is still low and the level of ERP application in Vietnam. Men are only at a basic level (Le MD, 2017).

Currently, most businesses focus on the time of ERP implementation, the time after which is often rarely mentioned. Meanwhile, the post-implementation period of the ERP system is the time that can enhanghiên cứue or decrease the overall BENEFITS or accounting BENEFITS that businesses get from the ERP SYSTEM regardless of the time of implementation. how successful was. In many companies with ERP systems operating for several years, the initial success has not helped maintain the BENEFITS that businesses need in the ERP system after the implementation period (Shih-Wei Chou and Yu-Chieh Chang, 2008). Therefore, in practice, the research needs to find out the factors in the post-implementation period affecting the BENEFITS of the ERP

system to businesses (the author wants to aim towards accounting BENEFITS) to maintain the maintain and enhanghiên cứue these BENEFITS.

The field of ERP researching has been researched by many researchers around the world for many years. In Vietnam, ERP researches are few, most of which are general researches on ERP. During the past 5 years in our country, the number of researches in the field of ERP in the direction of accounting has inghiên cứureased, accounting for mainly doctoral studies and master theses.

Based on an overview of finanghiên cứuial benefits, researchers around the world often present accounting BENEFITS in the overall BENEFITS that enterprises receive from the ERP system, the number of authors focusing on accounting BENEFITS is very small. Researches on accounting BENEFITS in the world have just considered the factor accounting BENEFITS at the time of implementing the SYSTEM or looking for a way to measure accounting BENEFITS in the ERP system in enterprises, or see consider it in influenghiên cứuing other dependent factors. Also in Vietnam, there have also appeared a number of researches that mentioned the BENEFITS of accounting in the ERP system. However, the researches in our country are similar to the ones in the world that do not focus on the factor accounting BENEFITS but consider it as an independent factor affecting some other dependent factors such as: results of employees working in the ERP SYSTEM (Pham Tra Lam, 2018); or reactive capacity of enterprises, business performanghiên cứue (Bui Quang Hung, 2019) and researchers in Vietnam often do not pay attention to the life cycle stages of ERP when researching problems of This system.

Interesting directly towards NGHIÊN CÚU of the study, in the International Journal of ACCOUNTING INFORMATION SYSTEM in 2013 there is an NGHIÊN CÚU "Accounting benefits and satisfaction in the ERP system" by two authors Kanellou and Spathis . However, the findings of this research are only showing the accounting BENEFITS that enterprises receive when implementing ERP, classifying these accounting BENEFITS, finding out in the ERP system the influenghiên cứue of accounting BENEFITS to the user satisfaction is like, but not learn the opposite. At the same time, the analytical unit of this research is an individual unit that has not yet studied the organizational unit. Another article presented in the Journal of enterprise management in 2006, titled "The implementation of the ERP system and accounting benefits" by Spathis has found out the factors that influenghiên cứue the ERP implementation is: the reasons for the implementation, the total number of ERP modules, the cost of the SYSTEM implementation as a percentage of the company's revenue and total assets. But in the post-system implementation period, when the ERP system is in operation, what will the accounting BENEFITS be governed by? This is a very interesting issue.

2. Literature review

Foreign studies on the benefits that ERP system brings to businesses and for corporate accountants

Many researches using qualitative and quantitative approaches have tried to point out the BENEFITS that businesses get from the ERP system, inghiên cứuluding tangible and intangible BENEFITS. From an accounting perspective, the accounting BENEFITS is the direction of research that has not been paid much attention, most of the researches are aimed at clarifying the benefits of ERP systems that bring positive changes to accounting practices. Is the role of accountant different? Basically, the foreign researches on the BENEFITS that the ERP system brings to the enterprise and for the accounting in the enterprise consists of 2 main groups of researches (1) The researches on the BENEFITS that the ERP system brings to the enterprise and (2) Researches on the BENEFITS OF ERP SYSTEM for accounting in enterprises. Because the research direction of the study is the accounting BENEFITS in the ERP system, the research group No. 2 will be the research group where the author focuses on overview of related interest studies.

(1) Researches on the BENEFITS that the ERP system brings to businesses

The studies on the BENEFITS that the ERP system brings to businesses are summarized in appendix 1. Derived from Shang & Seddon's (2002), using a qualitative approach, a scale of BENEFITS received by businesses. Enterprise System (ES - Enterprise System) is found inghiên cứuluding 5 aspects: operations, management, strategy, IT infrastructure and organization. The studies then went into depth to explore these BENEFITS dimensions as well as the problems that Shang & Seddon (2002) scale has not found.

Also by qualitative research method, Kenneth E Murphy & Steven John Simon (2002) showed that businesses will receive some intangible BENEFITS from current ERP such as: improving internal capabilities, enhanghiên cứuing ability to meet requirements. customer demand. And in the future such as: improving corporate vision, improving adaptability. Or Lorraine Staehr (2007), by trading in a semi-structured way with 28 leaders in enterprises, overview of internal interests and public centers of 4 manufacturing companies in Australia, thereby improving the ladder. MEASURING THE BENEFITS OF ERP SYSTEM based on NGHIÊN CÚU of Shang and Seddon (2000). Meanwhile, some other authors have checked the visible and invisible BENEFITS that ERP system brings to businesses such as Khaled Al-Fawaz, Zahran Al-Salti and Tillal Eldabi (2008), or introduce a template to investigate the BENEFITS and changes in the business of the ERP SYSTEM (Petra Schubert and Susan P. Will Benefitams, 2009), providing a roadmap to help the BENEFITS from the ERP system can be implemented in DN (Jose Esteves, 2009).

In addition to the qualitative approach, some researches have approached quantitatively, surveyed with large samples, in order to find out the full BENEFITS of enterprises from the ERP system: Holsapple and Sena (2003), Olhager and Selldin. (2003), Andreas I. Nicolauo (2004) or a combination of both qualitative - quantitative as Hawking, Stein and Foster (2004) to get the most accurate results. These studies show that, in addition to the BENEFITS found out, the BENEFITS businesses will receive from the ERP system inghiên cứulude: BENEFITS in decision support, finanghiên cứula control, inghiên cứureased time for analysis.... Along with that, the researchers also pointed out that there is an association between ERP BENEFITS and business lines, ERP implementation and long-term finanghiên cứula performanghiên cứue.

(2) Researches on the BENEFITS OF ERP SYSTEM for accounting in enterprises

The researches to consider the BENEFITS of the ERP system to the accountants in the enterprise inghiên cứulude: (a) looking for specific accounting BENEFITS that the ERP system brings to the enterprise, (b) finding out when the ERP system THE ERP system is put into operation in the enterprise, does it bring a positive change in accounting practices such as leading to advanghiên cứued management accounting methods used in the enterprise or the accountant in the ERP? change or not ?.

There have been some RESEARCHs to learn about accounting BENEFITS in the ERP system before Kanellou and Spathis (2013). However, these RESEARCH have only discovered specific accounting BENEFITS, but have not built a perfect scale of accounting BENEFITS like Kanellou and Spathis (2013). Some typical RESEARCHs such as Spathis and Constantinides (2004) have pointed out some important BENEFITS that ERP system brings to enterprise accountants such as: Enterprise accounting center will enhance the ability to benefit activities, applications. Accountants will improve integration capabilities, improve the quality and timing of accounting reports and improve the timeliness and reliability of the quality of accounting information in enterprises. Or the implementation of ERP will help improve the ability to develop financial resources, improve asset management, reduce the time to publish reports such as financial statements at businesses and improve the quality of reports. this report (Spathis and Ananiadis, 2005); Financial reporting improves accuracy, and employee monitoring and supervision are enhanced (Colmenares, 2009) Most of the RESEARCH in this group follows quantitative or mixed PP.

However, the results of the change in accounting practices affected by ERP are not really clear. Many RESEARCHs have shown that the implementation of integrated systems such as ERP does not cause any changes to accounting practices, such as leading to advanced management accounting methods used in enterprises. : Booth et al (2000), Granlund and Malmi (2002), Hyvönen (2003), Despina Galani et al (2010). On the contrary, many other RESEARCHs have shown that integrated information systems such as ERP have adjustments to the management accounting in reality of operations in enterprises (Rom and Rohde, 2006; Granlund, 2011); Implementing enterprise systems (such as ERP) will change financial accounting, management accounting, auditing and ACCOUNTING INFORMATION SYSTEM (Steve G. Sutton, 2006); In an integrated information system like ERP, the culture of management accounting has had a lot of changes in the actual operation (Järvenpää, 2007); The implementation of the ERP system will bring about changes in the practice of accounting activities (Grabski et al., 2011); Or the ERP system will improve the standard and quality of management reporting (Solmaz Abbasi et al., 2014) Therefore, it can be seen that the ERP SYSTEM and

the practice of accounting operations (as used Advanced management accounting methods) have interrelated interests, but there is insufficient evidence to conclude their degree of correlation (Aernoudts et al, 2005).

Regarding the role of an accountant in the ERP system, all RESEARCHs confirm that the implementation of ERP will make the accountant adjustments to their roles. The relationship between accountants and the ERP system is getting closer and closer (Mike Newman and Chris Westrup, 2005). Accountants have shown a change in their work due to the implementation of ERP, from the traditional role (focusing on accounting activities) to a higher role, which is to put the accountant in the position of a private expert. and analysts (Scapens and Jazayeri, 2003). However, the accounting position is different, the change will be different. In which, the biggest change is in management accounting and internal control. Financial accounting does not affect its function much (Hsueh-Ju Chen et al., 2011). Cagluco (2003) also suggested that the use of ERP system will lead to the emergence of a new position of hybrid accounting - a mixed position between accounting and other professional professions. In the ERP system, in addition to professional knowledge, understanding of business and organizational processes, management accountants also need to have other capabilities to match the work needs as they need to have the ability to communicate to solve problems. like analysis results for senior leaders in enterprises, influencing and convincing senior leaders as well as IT skills to make best use of ERP (Heba El Sayed, 2006). RESEARCH of this group is mainly done using qualitative methods.

Foreign studies on the factors affecting accounting benefits that the ERP system brings to businesses Foreign RESEARCHs often discuss the issue of general accounting BENEFITS in RESEARCHs on BENEFITS that ERP brings to enterprises. Therefore, in this section, in addition to the RESEARCHs that directly consider accounting BENEFITS in the ERP system will be affected by the factors, RESEARCHs about the factors affecting enterprise BENEFITS in the SYSTEM ERP; Factors affecting efficiency, the value ERP brings to businesses, or factors affecting ACCOUNTING INFORMATION SYSTEM in ERP will also be discussed. Because factors affecting these are likely to affect accounting BENEFITS that ERP brings to businesses; Or accounting BENEFITS is part of the overall BENEFITS that the ERP system brings to businesses; And accounting BENEFITS comes from ACCOUNTING INFORMATION SYSTEM in the ERP system, so the factors that affect these issues will have the ability to affect the accounting BENEFITS of the ERP system bring to the enterprise. The RESEARCH stage that I want to explore is the post-implementation period, so most of the RESEARCHs reviewed in this section are at this time but some of the RESEARCHs at implementation time will also presented because they will likely continue to show their influence around the post-rollout period.

RESEARCH on factors affecting accounting BENEFITS that ERP SYSTEM brings to businesses. Based on the overview, the author found that these RESEARCHs focus on the following four factors:

- ERP quality factors: Majed Al-Mashari et al (2003), Hawking et al (2004), Spathis (2006), Oana Velcu (2007), Shih-Wei Chou and Yu-Chieh Chang (2008), Benefits Hsiu-Fen (2010), Henri Teittinen et al (2013), Jiwat Ram et al (2013), Young Mok Haa and Hyung Jun Ahn (2014), Edith Galy and Mary Jane Sauceda (2014), Pedro Ruivo et al (2014)).

- Quality of service factor of ERP solution providers: Hazar Daoud and Mohamed Triki (2013), Jiwat Ram et al (2013), Young Mok Haa and Hyung Jun Ahn (2014), Edith Galy and Mary Jane Sauceda (2014), Pedro Ruivo et al (2014).

- Organizational factors: Majed Al-Mashari et al (2003), Hawking et al (2004), Gattiker and Goodhue (2004), David Gefen and Arik Ragowsky (2005), Spathis (2006), Oana Velcu (2007), Shih-Wei Chou and Yu-Chieh Chang (2008), Hazar Daoud and Mohamed Triki (2013), Young Mok Haa and Hyung Jun Ahn (2014), Edith Galy et al (2014), Pedro Ruivo et al (2014).

- The factor of user satisfaction: Hawking et al (2004), Wagner et al (2011), Henri Teittinen et al (2013), Pedro Ruivo et al (2014).

1.2.2.1 Researches on the quality factor ERP

The implementation of ERP system has brought about big changes in the application of IT and technology to solve business problems at enterprises. Many BENEFITS ERP provides businesses including accounting BENEFITS outperformed traditional information systems which are judged by the benefits of data processing and excellent TT provision of ERP. Therefore, the factor of ERP quality has been studied by many studies to clarify whether it affects the BENEFITS that businesses get from the ERP SYSTEM or not? According to Benefitsn Hsiu-Fen (2010), ERP quality includes the quality of the ERP system and the quality of information provided by the ERP SYSTEM.

At the time of implementing ERP system, the characteristics of ERP system are the factors that RESEARCHERS often consider. Because in this period, the ERP SYSTEM is not in operation, so it is impossible to measure the quality of ERP. Many RESEARCHs often consider the harmony in the association between the ERP system and the organizational factor as the factor that ensures the successful implementation of the ERP system, further deepening that is the characteristics of the ERP software. It is the most important thing that the enterprise's selection and characteristics are compatible with each other, especially with the current business processes that the enterprise is implementing is the most important thing (Majed Al-Mashari et al., 2003). The more compatible the ERP software features and the characteristics of the enterprise, the better the ERP implementation will be ensured, from there it will bring benefits to businesses. About the BENEFITS of the ERP accounting system to businesses, Spathis (2006) discovered the BENEFITS that ERP brought to the accountants during the implementation of the ERP system, subject to the adjustment of 4 factors, including: reasons for implementing ERP, total SYSTEM modules, cost of the SYSTEM implementation as a percentage of sales, and total assets of the enterprise. It can be seen that the ERP quality factor in this RESEARCH is represented by the number of SYSTEM modules. The higher the number of SYSTEM modules, the higher the integration level in the business processes of the enterprise, the higher the accounting BENEFITS in the ERP system. Oana Velcu (2007) pointed out in an exploratory STUDY that the BENEFITS that ERP brings to enterprises implementing ERP because the motivation for the quality of the information system (technical engine) is different when compared to enterprises implement ERP for business motivation, because the characteristics of ERP systems deployed in two cases are different. Thus, the characteristics of the ERP SYSTEM is a factor that is adjusted to the BENEFITS OF THE ERP SYSTEM, which provides enterprises the time to implement the SYSTEM including accounting BENEFITS.

- At the time of using and maintaining the SYSTEM, ERP quality barriers that prevent businesses from achieving the desired ERP BENEFITS include: Poor implementation process and reporting quality, The SYSTEM resources are inadequate, the software functionality is poor, the software lacks support, the application management of the software is poor, the ability to perform the upgrade of the software is poor (Hawking et al., 2004) or some of the benefit data cannot be included in the ERP, and from time to time the ERP SYSTEM may malfunction (Henri Teittinen et al., 2013).

Benefits Hsiu-Fen (2010) using a quantitative approach with the SEM benefit data processing tool has shown that the ERP quality including the system quality and the quality of the imagery affect the perception of usefulness. In addition, the quality of the SYSTEM has an impact on user satisfaction. From there, the two dependent variables above will have an adjustment to the use of ERP. In summary, through the STUDY of Hsiu-Fen Benefits ERP quality has an indirect influence on the use of ERP through two factors of perception of the usefulness and satisfaction of users.

Two RESEARCHs by Jiwat Ram et al (2013) together with Young Mok Haa and Hyung Jun Ahn (2014) confirmed that integrating ERP into business processes will impact ERP efficiency in the postimplementation period. Meanwhile, Shih-Wei Chou and Yu-Chieh Chang (2008) pointed out that customizing the ERP system according to the enterprise's characteristics will affect the BENEFITS of ERP that enterprises have post-implementation period. This shows that the implementation and refinement of ERP to meet the needs of businesses will not only affect the BENEFITS that ERP brings to businesses during the ERP implementation period, but also the BENEFITS in the period of time. post-deployment.

The value and effectiveness of ERP in the post-implementation period will be governed by the technological capacity of the ERP (the ability of the system quality to solve problems in business operations at

the enterprise and the quality of the business center. from the ERP system in response to this) (Edith Galy and Mary Jane Sauceda (2014), Pedro Ruivo et al (2014)).

In a nutshell, through the RESEARCH of the relevant benefits, it is possible to realize that the ERP quality factor has an impact on the BENEFITS ERP gives enterprises post-implementation time. Because the research direction of benefit research relates to accounting BENEFITS, the ERP Quality will include the quality of the ERP SYSTEM and the quality of the accounting information provided by the ERP SYSTEM.

3. Research Methods

RESEARCH method implemented by the author is a combination between qualitative RESEARCH method and quantitative RESEARCH method. "Qualitative is the method used by RESEARCHERS to discover scientific phenomena that need RESEARCH. Next, use quantitative to confirm qualitative results. For example, we use qualitative methods to build hypotheses (theory). Then, use quantitative methods to test them "(Nguyen Dinh Tho, 2014, p. 185).

A specific RESEARCH process is carried out in two steps RESEARCH of the subject: (1) preliminary RESEARCH and (2) official RESEARCH as follows:

(1) At the stage of preliminary RESEARCH, PP qualifies overview of domestic and international ERP RESEARCHs, together with the background theories to form a STUDY model of factors affecting BENEFITS accounting ERP system bring to Vietnamese enterprises in the post-implementation period and scale the RESEARCH factors; These are then refined and supplemented through expert group discussion techniques. The number of participants is 9 people, including experts (1) lecturers teaching ERP, (2) experts in the enterprise providing ERP SYSTEM, (3) chief accountant or director at the enterprise. operating the ERP SYSTEM. These are people who have solid ERP expertise or have a lot of experience using ERP in practice. From here, the author has the first draft scale. Next, the author will conduct hand-to-hand interviews with chief accountants of about 10 companies that have operated the ERP SYSTEM for 1 to 3 years to complete the final draft scale.

The next step in the preliminary RESEARCH, the author uses quantitative methods to preliminary investigate, evaluate the scale to ensure reliability, scale value before conducting official RESEARCH. Quantitative method is applied in this step, through 2 verification steps, namely Cronbach Alpha and EFA using SPSS software. Regarding the sample size, quantitative preliminary STUDY uses a sample size of about 100 Vietnamese enterprises that have operated the ERP SYSTEM for 1 to 3 years according to the sampling method which does not follow the probability that the seed development method.

(2) Finally, the official RESEARCH step, quantitative PP is implemented with a sample size of about 300 Vietnamese enterprises that have operated ERP SYSTEM for 1 to 3 years according to the sampling method not according to the probability that the development method (Nguyen Dinh Tho and Nguyen Thi Mai Trang, 2011), to re-evaluate the measurement model, the structural model, the hypotheses made through the CFA and (SEM) tests by software. AMOS.

The sample size selected in the official quantitative preliminary STUDY and the official STUDY is 100 and 300 which satisfies the sample conditions for carrying out the tests (See chapter 3). Because it is difficult to accurately identify the enterprises using ERP in Vietnam, the author applies the sampling method not according to the probability that the seed development method. "Quantitative PP often requires large samples and is often selected using the probabilistic method to be representative of the crowd to be studied. However, non-probabilistic sampling is also commonly used in quantitative STUDY A theory has been tested with a sample that is not probabilistic and has not been rejected by the data of its benefits. This test still contributes to the evaluation of that theory (ie the RESEARCH result is still valid, of course not equal if the sample is selected randomly) "(Nguyen Dinh Tho, 2014, p. 150).

4. Result

Table 1. Regression estimation results

			Estimate	S.E	C.R	Р	Ну
HL	<	HỆ THỐNG	0,216	0,058	3,734	***	H2
HL	<	TT	0,155	0,051	3,023	0,003	H1
HL	<	DV	0,383	0,062	6,184	***	H3
LỢI ÍCH	<	KD	0,190	0,062	3,054	0,002	H9
LỢI ÍCH	<	QL	0,155	0,054	2,881	0,004	H8
LỢI ÍCH	<	HỆ THỐNG	0,133	0,053	2,494	0,013	H6
LỢI ÍCH	<	HL	0,152	0,071	2,151	0,031	H4
LỢI ÍCH	<	TT	0,129	0,047	2,751	0,006	H5
LỢI ÍCH	<	DV	0,114	0,059	1,919	0,055	H7

*** = 0,000

system variable (quality of ERP SYSTEM), TT (quality of accounting information), service (quality of service of enterprises providing ERP solutions) impact HL (user satisfaction in ERP SYSTEM) in the same direction have statistical significance (P - value ≤ 0.05).

Variable KD (Completion of business processes at the enterprise), QL (The continuation of the support of senior leaders), SYSTEM (ERP SYSTEM quality), HL (User satisfaction in the ERP SYSTEM), TT (quality of accounting information) affects BENEFITS (BENEFITS accounting in the ERP system) in the same direction, has statistical significance (P - value ≤ 0.05).

Reject hypothesis H7 (P - value> 0.05). Service (QoS of enterprises providing ERP solutions) does not affect BENEFITS (BENEFITS accounting in the ERP system).

Conclusion: Except for hypothesis H7, the remaining eight hypotheses are consistent.

Table 2 The degree of direct impact of factors on accounting BENEFITS

			Beta	%	Ranking
LỌI ÍCH	<	KD	0,190	25,03	1
LỌI ÍCH	<	QL	0,155	20,42	2
LỢI ÍCH	<	HỆ THỐNG	0,133	17,52	4
LỌI ÍCH	<	HL	0,152	20,03	3
LỌI ÍCH	<	TT	0,129	17	5
Total			0,759	100	

Table 2 Direct and indirect effects of factors

			Р	Direct	Indirect	Explain	Total
HL	<	HỆ THỐNG	***	0,216	0,000		0,216
HL	<	TT	0,003	0,155	0,000		0,155
HL	<	DV	***	0,383	0,000		0,383
LỢI ÍCH	<	HL	0,031	0,152	0,000		0,152
LỢI ÍCH	<	HỆ THỐNG	0,013	0,133	0,033	HÊ THỐNG→HL→LỌI ÍCH (0,216 x 0,152)	0,166
LỢI ÍCH	<	TT	0,006	0,129	0,023	TT→HL→LỌI ÍCH (0,155 x 0,152)	0,152
LỢI ÍCH	<	DV	0,055	0,114	0,06	DV→HL→LỌI ÍCH (0,383 x 0,152)	0,174

Note: *** = 0,000

(Source: self-compiled by the author)

In Table 4.9, using PATH analysis, where the direct effect is the regression coefficient between the independent variable and the dependent variable in the STUDY model, the indirect effect is the effect of the independent variable. through the intermediate variable to the dependent variable and is calculated by multiplying the coefficients of the variables on the same path. "The correlation coefficient between two variables is equal to the regression weight (direct relation) between them plus the product of all the indirect relationships between them" (Nguyen Dinh Tho, 2014, p. 584).

Table 3.	Total in	npact of th	ne factors on a	accounting BEN	IEFITS			
			Р	Direct	Indirect	Explain	%	Ranking
LỢI ÍCH	<	KD	0,002	0,190	0,000	0,190	21,71	1
LỌ́I ÍCH	<	QL	0,004	0,155	0,000	0,155	17,71	3
LỢI ÍCH	<	HỆ THỐNG	0,013	0,133	0,033	0,166	18,97	2
LỢI ÍCH	<	HL	0,031	0,152	0,000	0,152	17,37	4
LỢI ÍCH	<	TT	0,006	0,129	0,023	0,152	17,37	4
LỢI ÍCH	<	DV	0,055	Không tác động	0,06	0,06	6,87	5
Tổng				0,759	0,056	0,875	100	

Considering the total impact level, in the post-implementation period, the perfection of business processes in enterprises still has the strongest impact on accounting BENEFITS in the ERP SYSTEM (21.71%). But the continued top management support fell to third place (17.71%). In the post-implementation period, the total impact of the ERP system's quality on the accounting BENEFITS in the ERP system is in second place (18.97%). User satisfaction in the ERP system and the quality of accounting information have the same impact on the dependent factor (17.37%) and ranked 4th. The service quality of the ERP solution provider only has an indirect impact on the accounting BENEFITS in the ERP system through the satisfaction of users in the ERP system should have the lowest impact level (6.87%).

Discussing the research results of the study with ERP experts, all experts evaluated the research findings as appropriate to the actual conditions of the time after implementing the ERP system at businesses in our country. Accounting in the ERP system differs from accounting in the traditional information system that accounting is no longer the starting point but the continuation point of a chain of processes in the enterprise to create TT, accounting accounting. No longer just start in the accounting department, but can start right away in the activity generation department. The way of accounting entries, in addition to the reciprocal relations as before, there are also other intermediate entries, in order to record professional operations in the production and business process into the SYSTEM. Therefore, business processes need to be built to fully cover all activities at the enterprise, so that the accounting is effective, thereby helping enterprises to achieve the accounting BENEFITS that the ERP system brings. back to DN. Although business processes at the enterprise were established during the implementation of the ERP system, but in the post-implementation period, the completion of business processes plays a very important role. Because of the enormous nature of the ERP system, there will be gaps in the system implementation time, it is necessary to make corrections to those issues in the post-implementation period. At the same time, changes in production and business activities in enterprises will be associated with the adjustment and completion of business processes to suit those changes. Because the benefits are directly related to the accounting activities, the completion of business processes at the post-deployment stage has the strongest impact on accounting BENEFITS in the ERP SYSTEM is completely reasonable.

5. Conclusion

The use of ERP SYSTEM in recent years has brought Vietnamese enterprises a great advantage in shortening the gap in capacity to control resources, make decisions, and complete business processes. and improve their competitiveness compared to international enterprises and corporations. INTEREST BENEFITS Our country's enterprises receive from the ERP system are diverse such as: INTERESTED BENEFITS in terms of decision making, intangible BENEFITS, tangible BENEFITS ... In which, it is impossible not to mention accounting BENEFITS that Vietnamese businesses have when implementing ERP SYSTEM. Basically, the accounting BENEFITS of Vietnamese enterprises from the ERP system are similar to those in the world, although most enterprises in our country often only deploy the ERP SYSTEM partly because enterprises in our country host The weak point is that the medium-sized enterprises are limited in terms of manpower and budget when implementing systems that require a lot of business resources such as ERP systems.

However, most businesses in our country only focus on the initial ERP implementation period, but often ignore the problems in the post-implementation period. Meanwhile, the post-implementation period is the time that can enhance or decrease the BENEFITS received by the enterprise from the ERP system in general and the accounting BENEFITS that businesses receive from the ERP SYSTEM in particular. how successful the early stage was. In many companies, after having been operating the ERP system for a few years, the success at the initial implementation period did not help maintain the BENEFITS that businesses need in the ERP system after the time of implementation.

Therefore, what the research finds, besides the academic implications, helps to complete the missing problems in ERP RESEARCH, also contributes to bring practical meaning, helps the Enterprises realize how to implement, maintain, and enhance the accounting BENEFITS that enterprises get from the ERP system, not only when implementing the SYSTEM but also after the implementation, when the system is STAT has been operating for a while.

References

- i. Aernoudts R.H.R.M., Van Der Boon T.H., Van der Pijl G.J., and Vosselman E.G.J., 2005. Management accounting change and ERP, an assessment of research, Research Conferenghiên cứue on the Changing Roles of Management Accounting as a Control Systems. Antwerp, Belgium.
- ii. Alzoubi, A., 2011. The effectiveness of the accounting information system under the enterprise resources planning (ERP). Research Journal of Finanghiên cứue and Accounting, 2(11), pp.10-19.
- iii. Andreas I. Nicolauo, 2004. Firm Performanghiên cứue effects in relation to the implementation and use of enterprise resource planning systems. Journal of Information systems, Vol 18, No. 2, 79-105.
- iv. Athambawa Haleem, Low Lock Teng, Kevin, 2015. A review on Accounting Information Qualoi íchê thốngy In ERP Environment In Siri Lanka: An exploratory analysis. International Journal of Economic and Business Review, Vol 3, Issue 12, 5-12.
- v. Benard, R. and Satir, A., 1993. User satisfaction with EISs: Meeting the needs of executive users. Information Systems Management, 10(4), 21-29.
- vi. Bento, F. and Costa, C.J., 2013. ERP measure success model; a new perspective, Proceedings of the 2013 International Conferenghiên cứue on Information Systems and Design of Communication, 16-26. ACM.
- vii. Booth P, Matolscy Z, Wieder B, 2000. The impacts of enterprise resource planning systems on accounting practice: The Australoi íchan experienghiên cứue. Aust Account Rev, 10(3), 4-18.
- viii. Botta-Genoulaz, V., Millet, P.A. and Grabot, B., 2005. A survey on the recent research loi íchê thốngerature on ERP systems. Computers in industry, 56(6), pp.510-522.
- ix. Bradford, M. and Florin, J., 2003. Examining the role of innovation diffusion factors on the implementation success of enterprise resource planning systems. International journal of accounting information systems, 4(3), 205-225.
- x. Briggs, R.O., Reinig, B.A. and de Vreede, G.J., 2008. The yield shift theory of satisfaction and its apploi íchcation to the IS/IT domain. Journal of the Association for Information Systems, 9(5), 14.
- xi. Cagloi ícho, A., 2003. Enterprise resource planning systems and accountants: towards hybridization?. European Accounting Review, 12(1), 123-153.
- xii. Callon, M., 1999. Actor-network theory—the market test. The Sociological Review, 47(1_suppl), 181-195.
- xiii. Chang, Wu, W.H., Ho, C.F., Fu, H.P, T.H., 2006. SMES implementing an industry specific erp model using a case study approach. Journal of the Chinese Institute of Industrial Engineers, 23(5), 423-434.
- xiv. Churchill Jr, G. A., 1979. A paradigm for developing better measures of marketing constructs. Journal of marketing research, 64-73.
- xv. Colmenares, L., 2009. Benefits of ERP systems for accounting and finanghiên cứuial management. Proceedings of the Acedemy of Information and Management Scienghiên cứues, 13(1), 3-7.

http://www.ijmsbr.com/

- xvi. Constantinos J. Stefanou, 2002. Accounting Information Systems (ACCOUNTING INFORMATION SYSTEM) Development/Acquisition Approaches by Greek SME, European Accounting Information Systems Conferenghiên cứue. Copenhagen Business School, 23-24th April, 2002.
- xvii. Constantinos J. Stefanou, Marilena T. Athanasaki, 2012. Management Accounting Practices in ERP Environments: A Research Agenda, 9th International Conferenghiên cứue on Enterprise Systems, Accounting and Logistics (9th ICESAL 2012). Chania, Crete, Greece, 3-5 June 2012.
- xviii. Coombs, C.R., Doherty, N.F. and Loan-Clarke, J., 2001. The importanghiên cứue of user ownership and positive user attitudes in the successful adoption of community information systems. Journal of Organizational and End User Computing (JOEUC), 13(4), 5-16.
- xix. Cresswell, J.W., 2012. Planning, conducting, and evaluating quantitative and qualçi íchệ thốngative research. Educational Research.
- xx. Cristóbal Sánghiên cứuhez-Rodríguez and Gary Spraakman, 2012. ERP systems and management accounting: a multiple case study. Qualợi íchệ thốngative Research in Accounting & Management, Vol. 9 Issue: 4, 398-414.
- xxi. Daniel E. O'Leary, 2004. Enterprise resource planning (ERP) systems: An empirical analysis of benefits. Journal of emerging technologies in Accouting, Vol 1, 63-72.
- xxii. Davenport, T.H., 1993. Process innovation: reengineering work through information technology. Harvard Business Press
- xxiii. Davenport, T.H., 2000. Mission critical: Realoi íchzing the promise of enterprise systems. Harvard Business Press.
- xxiv. David Gefen and Arik Ragowsky, 2005. A multi-level approach to measuring the benefits of an ERP system in manufacturing firms. Information Systems Management, 22(1), 18-25.
- xxv. Deloitte, C.O.N.S.U.L.T.I.N.G. and Touche, G., 1998. ERP's Second Wave-Maximizing the Value of ERP-Enabled Processes. Deloitte & Touche Consulting LLC.
- xxvi. DeLone, W.H. and McLean, E.R., 1992. Information systems success: The quest for the dependent variable. Information systems research, 3(1), 60-95.
- xxvii. Delone, W.H. and McLean, E.R., 2003. The DeLone and McLean model of information systems success: a ten-year update. Journal of management information systems, 19(4), 9-30.
- xxviii. DeLone, W.H. and McLean, E.R., 2016. Information systems success measurement. Foundations and Trends® in Information Systems, 2(1), 1-116.
- xxix. Depietro, R., Wiarda, E. and Fleischer, M., 1990. The context for change: Organization, technology and environment. The processes of technological innovation, 199(0), 151-175.
- xxx. Despina Galani, Efthymios Gravas, Antonios Stavropoulos, 2010. The Impact of ERP Systems on Accounting Processes. International Journal of Economics and Management Engineering, Vol 4, No 6, 774-779.
- xxxi. Deville, R.F., 2003. Scale development: theory and apploi íchcations . Apploi íched Social Research Methods Series.
- xxxii. Edith Galy & Mary Jane Sauceda, 2014. Post-implementation practices of ERP systems and their relationship to finanghiên cứuial performanghiên cứue. Information & Management 51, 310–319.
- xxxiii. Esteves, J. and Pastor, J., 1999, November. An ERP loi íchfecycle-based research agenda. In 1st International Workshop in Enterprise Management & Resource Planning.
- xxxiv. Freeman, R.E., 2010. Strategic management: A stakeholder approach. Cambridge university press.
- xxxv. Gable Guy G et al., 2003. Enterprise systems success: a measurement model, Proceedings Twenty-Fourth International Conferenghiên cứue on Information Systems, 576-591. Seattle, USA.
- xxxvi. Gartner, C.D., 2016. The gartner top 10 strategic technology trends for 2016. Gartner webinar.
- xxvii. Gattiker DF & Goodhue DL, 2004. Understanding the local-level costs and benefits of ERP through organizational information processing theory. Inf Manage, 41, 431-439.
- xxxviii. Gelderman, M., 1998. The relation between user satisfaction, usage of information systems and performanghiên cứue. Information & management, 34(1), pp.11-18.

http://www.ijmsbr.com/

	International Journal of Management Sciences and Business Research, Jan-2021 ISSN (2226-8235) Vol-10, Issue 1
xxxix.	Grabski, Severin V., Leech, Stewart A., Schmidt, Pamela J., 2011. A review of ERP research: A Future
	angenda for Accounting Information Systems. Journal of Information Systems, 25(1), 37-78.
xl.	Granlund M, Malmi T, 2002. Moderate impact of ERPs on management accounting: a lag or permanent outcome?. Manag Account Res, 13, 299-321.
xli.	Granlund, M., 2011. Extending ACCOUNTING INFORMATION SYSTEM research to management
лп.	accounting and control issues: A research note. International Journal of Accounting Information
	Systems, 12(1), pp.3-19.
xlii.	Gregor, S., 2002. A theory of theories in information systems. Information Systems Foundations:
ХШ.	building the theoretical base, 1-20.
xliii.	Griffith, D.A. and Harvey, M.G., 2001. A resource perspective of global dynamic capabiloi iche
лш.	thôngies. Journal of International Business Studies, 32(3), 597-606.
xliv.	Hair Jr, J.F., Hult, G.T.M., Ringle, C. and Sarstedt, M., 2016. A primer on partial least squares
AIIV.	structural equation modeloi íchng (PLS-SEM). Sage publoi íchcations.
xlv.	Hart, C, 1998. Doing a Loi íchê thốngerature Review: Releasing the Social Scienghiên cứue Research
AIV.	Imagination. London: Sage, 1998.
xlvi.	Hawking, P., Stein, A. and Foster, S., 2004, January. Revisiting ERP systems: benefit realoi ichzation.
711 V I.	In 37th Annual Hawaii International Conferenghiên cứue on System Scienghiên cứues, 2004.
	Proceedings of the (pp. 8-pp). IEEE.
xlvii.	Hazar Daoud and Mohamed Triki, 2013. Accounting Information Systems in an ERP Environment and
	Tunisian Firm Performanghiên cứue. The International Journal of Digital Accounting Research, Vol.
	13, 1 – 35.
xlviii.	Heba El Sayed, 2006. ERPs and accountants' expertise: the construction of relevanghiên cứue. Journal
	of Enterprise Information Management, Vol. 19 Issue: 1, 83-96.
xlix.	Hellsten, S.M. and Markova, M., 2006. The DeLone and McLean model of information systems success-
	original and updated models. In SIGCHI Conferenghiên cứue (pp. 1-5).
1.	Henri Teittinen et al., 2013. ERP in action — Challenges and benefits for management control in SME
	context. International Journal of Accounting Information Systems, Vol 14, Issue 4, 278-296.
li.	Holsapple, C.W. and Sena, M.P., 2005. ERP plans and decision-support benefits. Decision Support
	Systems, 38(4), 575-590.
lii.	Hsueh-Ju Chen, Shaio Yan Huang, An-An Chiu & Fu-Chuan Pai, 2011. The ERP system impact on the
	role of accountants. Industrial Management & Data Systems, Vol. 112, No. 1, 83-101.
liii.	Hyvönen, T., 2003. Management accounting and information systems: ERP versus BoB. European
1.	Accounting Review, 12(1), 155-173.
liv.	Järvenpää, M., 2007. Making Business Partners: A case study on how Management Accouting Culture
1	was Changed. European Accouting Review, 16(1), 99-142.
lv.	Jiang, J.J., Klein, G. and Saunders, C., 2012. Discrepanghiên cứuy theory models of satisfaction in IS research. In Information systems theory (pp. 355-381). Springer, New York, NY.
lvi.	Jiwat Ram, David Corkindalea, Ming-Lu Wu, 2013. Implementation Critical Success Factors (CSFs) for
1 v 1.	<i>ERP:</i> Do they contribute to implementation success and post-implementation performanghiên cứue?.
	International Journal of Production Economics, 144(1), 157-174.
lvii.	Johansson, H.J., McHugh, P., Pendlebury, A.J. and Wheeler, W.A., 1993. Business process
1,111	reengineering: Breakpoint strategies for market dominanghiên cứue. Chichester: Wiley.
lviii.	Jose Esteves, 2009. A benefits realoi ichsation road-map framework for ERP usage in small and
	medium-sized enterprises. Journal of Enterprise Information Management, Vol. 22 No. 1/2, 2009, 25-35.
lix.	Kanellou, A., and Spathis, C., 2013. Accounting benefits and satisfaction in an ERP environment.
	International Journal of Accounting Information Systems, 14, 209-234.
lx.	Kenneth E Murphy & Steven John Simon, 2002. Intangible benefits valuation in ERP projects.
	Information System Journal, Volume 12, Issue 4, 301–320.

- 1xi. Khaled Al-Fawaz, Zahran Al-Salti and Tillal Eldabi, 2008. Critical Success Factors in ERP implementation: a review, European and Mediterranean Conferenghiên cứue on Information Systems 2008. Al Bustan Rotana Hotel, Dubai, May 25-26 2008.
- Ixii. Kirchmer, M., 2017. Business Process Management: What Is It and Why Do You Need It?. In High Performanghiên cứue Through Business Process Management (pp. 1-28). Springer, Cham.
- Ixiii. Kumar, K. and Van Hillegersberg, J., 2000. ERP experienghiên cứues and evolution. Communications of the ACM, 43(4), 22.
- lxiv. Law, C.C. and Ngai, E.W., 2007. ERP systems adoption: An exploratory study of the organizational factors and impacts of ERP success. Information & Management, 44(4), pp.418-432.
- Ixv. Le, M.D., 2017. ERP and Apploi ichcation Status: A Review of Vietnam's SMEs. Journal of Research in Business. Economics and Management, 86, pp.1577-1587.
- 1xvi. Lợi íchn, H.F., 2010. An investigation into the effects of IS qualợi íchệ thốngy and top management support on ERP system usage. Total Qualợi íchệ thốngy Management, 21(3), 335-349.
- Ixvii. Lorraine Staehr, 2007. Assessing Business Benefits from ERP Systems: An Improved ERP Benefits Framework, Twenty Eighê thốngh International Conferenghiên cứue on Information Systems (ICIS), Montreal 2007 Proceedings.
- Ixviii. MacKenzie, S.B., Podsakoff, P.M. and Fetter, R., 1991. Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons' performanghiên cứue. Organizational behavior and human decision processes, 50(1), pp.123-150.
- lxix. Majed Al-Mashari, Abdullah Al-Mudimigh, and Mohamed Zairi, 2003. Enterprise resource planning: A taxonomy of critical factors. European Journal of Operational Research, 146, 352–364.
- Ixx. Markus Granlund, 2011. Extending ACCOUNTING INFORMATION SYSTEM research to management accounting and control issues: A research note. International Journal of Accounting Information Systems, Volume 12, Issue 1, 3-19.
- 1xxi. Markus, M.L. and Tanis, C., 2000. The enterprise systems experienghiên cứue-from adoption to success. Framing the domains of IT research: Glợi íchmpsing the future through the past, 173, 207-173.
- Ixxii. Marnewick, C., & Labuschagne, L., 2005. A conghiên cứueptual model for enterprise resource planning (ERP). Information management & computer security, 13(2), 144-155.
- Ixxiii. McGinnis, T.C. and Huang, Z., 2007. Rethinking ERP success: A new perspective from knowledge management and continuous improvement. Information & Management, 44(7), pp.626-634.
- Ixxiv. Mike Newman and Chris Westrup, 2005. Making ERPs work: accountants and the introduction of ERP systems. European Journal of Information Systems, 258–272.
- lxxv. Mike Wade. Actor network theory. <hệ thốngtps://is.theorizeit.org/wiki/Actor_network_theory>. [Ngày truy cập: 04 tháng 7 năm 2018].
- Ixxvi. Mintzberg, H., 1980. Structure in 5's: A Synthesis of the Research on Organization Design. Management scienghiên cứue, 26(3), 322-341.
- xxvii. Mitakos, T., Almaloi íchotis, I. and Demerouti, A., 2010. An auditing approach for ERP systems examining human factors that influenghiên cứue ERP user satisfaction. Informatica Economica, 14(1), 78.
- lxxviii. Mongin, P., 1997. Expected utiloi íchê thốngy theory. In and UJ Davis, W. Hands, editor. Handbook of Economic Methodology, 342--350.
- lxxix. Moon, Y. B., 2007. Enterprise Resource Planning (ERP): a review of the loi íchê thốngerature. Int.J.Management and Enterprise Development, Vol.4 (3), 235-264.
- Ixxx. Nikolaos Vakalfotis, Joan Ballantine, Anthony Wall, 2011. A Research Model to Understand the impact of Enterprise Systems on Management accounting, Mediterranean Conferenghiên cứue on Information Systems 2011 Proceedings.
- lxxxi. Nolan and Norton Institute, 2000. SAP Benghiên cứuhmarking Report 2000. KPMG Melbourne.

- xxxii. Oana Velcu, 2007. Exploring the effects of ERP systems on organizational performanghiên cứue: Evidenghiên cứue from Finnish companies. Industrial Management & Data Systems, Vol. 107 No. 9, 2007, 1316-1334.
- lxxxiii. O'Leary, D.E., 2000. Enterprise resource planning systems: systems, loi íchfe cycle, electronic commerce, and risk. Cambridge university press.
- lxxxiv. Olhager, J. and Selldin, E., 2003. Enterprise resource planning survey of Swedish manufacturing firms. European Journal of Operational Research, 146(2), pp.365-373.
- xxxv. Pang, L., 2001. Manager's Guide to Enterprise Resource Planning (ERP) Systems Over the last decade, many organizations have experienghiên cứued significant changes in their core business apploi íchcations. To address these many changes, a new type of software system was developed-enterprise resource planning (ERP) systems. Information Systems Control Journal, 4, 47-52.
- Ikxxvi. Pedro Ruivo, Tiago Oloi íchveira, Miguel Neto, 2014. Examine ERP post-implementation stages of use and value: Empirical evidenghiên cứue from Portuguese SMEs. International Journal of Accounting Information Systems 15, 166–184.
- Ixxxvii. Petra Schubert and Susan P. Willøi íchams, 2009. Constructing a Framework for Investigating and Visualøi íchzing ERP Benefits and Business Change. 22nd Bled eConferenghiên círue eEnablement: Faciløi íchê thôngating an Open, Effective and Representative eSociety. Bled, Slovenia, June 14 - 17, 2009.
- Ix xxviii. Petter, S., DeLone, W. and McLean, E., 2008. Measuring information systems success: models, dimensions, measures, and interrelationships. European journal of information systems, 17(3), 236-263.
 - lxxxix. Rashid, M.A., Hossain, L. and Patrick, J.D., 2002. The evolution of ERP systems: A historical perspective. In Enterprise Resource Planning: Solutions and Management (pp. 35-50). IGI Global.
 - xc. Rom, A., and Rohde, C., 2006. Enterprise resource planning systems, strategic enterprise management systems and management accounting. Journal of Enterprise Information Management, 19(1), 50-66.
 - xci. Sammon, D. and Adam, F., 2004. Towards a model for evaluating organizational readiness for ERP and data warehousing projects, ECIS 2004 Proceedings, p.107.
 - xcii. Scapens RW, Jazayeri M, 2003. ERP systems and management accounting change: opportunities or impacts? A research note. Eur Account Rev, 12(1): 201-233.
 - xciii. Scheepers, R., Scheepers, H. and Ngwenyama, O.K., 2006. Contextual influenghiên cứues on user satisfaction with mobile computing: findings from two healthcare organizations. European Journal of Information Systems, 15(3), 261-268.