

PROCEEDINGS

The 4th 2016 IBEA International Conference on Business, Economics and Accounting

Courtyard Marriott Hotel, Seoul Times Square, Seoul, Republic of Korea, 14-16 September 2016

Co-Host :

Host :



School of Economics Sichuan University
Chengdu, Sichuan China



Doctorate Program in Economics
Trisakti University Indonesia





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CONFERENCE SCHEDULE
THE 4TH IBEA INTERNATIONAL CONFERENCE ON BUSINESS, ECONOMICS AND ACCOUNTING
IN SEOUL, REPUBLIC OF KOREA ON
14 - 16 SEPTEMBER 2016

Day 1 : Wednesday 14 September

Time	Description	Room
17.30 - 18.00	Registration	MTR 6
18.00 - 18.10	Welcome Speech	
18.10 - 19.10	Key note Speech Chi Gong Sichuan University - China	
19.10 - 21.00	Dinner	

Day/ Date : Thursday, 15 September 2016
Room : MTR 2
Time : 09.00 - 10.20

	SME
Human Capital Investment and Economic Competitiveness (Study of Indonesian Economic Competitiveness among ASEAN Countries)	Soegeng Wahyoedi Universitas Kristen Djaya (UKRIDA) Peni Shoffiyati, Ester Edwar & M. Arifin, Politeknik Ati Padang
The Analysis Of Good Manufacturing Practices (GMP) Implementation On Small And Medium Food Industry (Case Study: Peyek Chips Industry And The Like In Padang)	Asni Harianti, Hanny Maranatha Christian University, Bandung, Indonesia
Entrepreneurial Leadership Characteristic: The Key To Success For The Micro Small And Medium Enterprises In Indonesia In The Aec Era	Ana Mariana & Bram Hadiano Maranatha Christian University, Bandung, Indonesia
Crowd funding: The Best Alternative for Small and Medium Enterprises to Get Success	Coffee Break : 10.20 - 10.40

Day/ Date : Thursday, 15 September 2016
Room : MTR 2
Time : 10.40 - 14.20

	Accounting And Finance
Individual Performance Affects The Effectiveness Of Accounting Information Systems	Rapina Maranatha Christian University, Bandung, Indonesia
ERP Implementation And Accounting Information Quality	Yenni Carolina Maranatha Christian University, Bandung, Indonesia
The Influence Of Internal Auditor Independence And Professionalism In Detecting Fraud	Santy Setiawan Maranatha Christian University-Indonesia
Factors that affect taxpayers' acceptance of e-tax filing and its impact on taxpayers' compliance: an Extension of the Technology Acceptance Model	Ita Salsalina Lingga & Lydia Rosiana Maranatha Christian University, Bandung, Indonesia

ERP Systems Implementation and Accounting Information Quality

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Abstract

Nowadays, the company's dependence on the quality of accounting information is not inevitable. Companies need quality accounting information to be more competitive and improve their company's performance. Management can achieve real time accounting information by implementing ERP (Enterprise Resource Planning) Systems. Well-designed ERP systems will facilitate management in making access to the latest information such as planning, controlling, and evaluating the organization's business processes to be more effective.

The purpose of this research was to test the effect of ERP systems implementation on accounting information quality. The empirical data was collected using questionnaires, distributed to department of financial management and regional asset in West Java province. SEM-PLS used in this study to test the hypothesis. The results of this research showed that the implementation of the ERP systems effects on the quality of accounting information

Key-Words: Enterprise resource planning (ERP) systems and accounting information quality

Introduction

Many organizations envision potential benefits from the integration of information systems existing on different management levels and within different functions. Enterprise Resource Planning (ERP) systems are designed to perform this integration (Kendall & Kendall, 2011). ERP systems is a set of computer programs that *integrate all the different functions within an organization* (Considine et al, 2012). A similar statement was said by Mc. Leod & Schell (2007) which stated that the ERP system is a computer-based system that allows managing all of organizational resources. Many companies use ERP systems to integrate its business processes (Laudon & Laudon, 2013). ERP systems significantly affects all the areas in the organization, including accounting, finance, management, marketing, and information systems (Kendall & Kendall, 2011).

ERP systems are used not only for planning but also for managing daily operations. The greatest advantage of ERP systems, the integration of many business processes. With successful ERP implementation, organizations can reap substantial rewards. However, ERP systems pose many challenges. The software packages are quite complex. Because they are not tailored to the needs of specific clients, they



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often require adjustment and fine-tuning for specific organizations (Oz, 2009). ERP systems can be used as a tool to support organizational decision making through the provision of information (Hall, 2011). Information from various systems within the enterprise will be stored in a storage medium that can be used by those who need (Laudon & Laudon, 2013). It is presented in real time (Hall, 2011). The provision of real time information would be beneficial to improve performance management within the organization, which will ultimately achieve a competitive advantage (Hall, 2011). It also will improve the accuracy because data input errors can be corrected in real time (Romney & Steinbart, 2012). Information is generally said to be qualified if they meet the criteria relevant, timely, accurate, complete and summarize (Hall, 2011; McLeod & Schell, 2007). Meanwhile, Nelson et al (2005) used accuracy (reflecting intrinsic quality), completeness and currency (reflecting contextual quality), and format (reflecting representational quality) as a dimension of quality information.

Regardless of the government, there is no question that IT has become recognized as the major infrastructure that underlines all other key government functions (Rocheleau, 2006) including the use of ERP systems to produce accounting information. Accounting information quality problems in Indonesia, occurs in local authorities regarding to the late submission of financial reports (Harry Azhar Aziz, 2015). The local government has not been able to present the data details of the fixed assets due to problems in fixed asset management information system (Moermahadi Soerdja Djanegara, 2015). Even the Indonesian government also recognizes there are 10 ministries which have a poor quality of financial statements (Agus Martowardojo, 2013). The government has made some efforts to improve the quality of financial reports of the central government, among others by improving the financial reporting systems (Boediono, 2014).

Based on the problems, the literature used and the results of prior research, it is necessary to study empirically the effect of the implementation of the ERP systems on the quality of accounting information.

The Problem Statement

From the description of the background research, the problem statement is as follows: how much the influence of ERP systems implementation on accounting information quality

Overview of Enterprise Resource Planning (ERP) Systems

Enterprise resource planning system (ERP systems) is a computer-based system that allows the management of all the resources of the company on the basis of the entire organization (Romney & Steinbart, 2012). Jones & Rama (2006) define ERP systems is an information system that spans functional boundaries and integrates the *information flow of the entire organization* Meanwhile, Considine et al (2012) defined ERP system is a complex set of computer program modules that integrate the different functional areas of the organization. So we can say that the ERP system is an information system designed to integrate all aspects of the organization's operations.

Gable et al (2003) proposed measurement model to assess the success of the enterprise system using the revised model. The model is developed on the model



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DeLone and McLean. This model is divided into four quadrants namely individual impact means the impact of the system on individuals who work with the system, for example, the effectiveness of the decisions or individual productivity. Organizations impact measure the impact of the system on the organization, such as the costs or staffing requirements of the organization, overall productivity. The systems quality consists of ease of use, flexibility or accuracy of the data. The quality of information on the other side, comprises, timeliness, relevance or importance of the information to work on.

Based on the theory above the ERP systems measurements in this study refers to the Gable et al (2003) research model, using three quadrants of the four quadrants suggested.

Overview of Accounting Information Quality

Stair & Reynolds (2010) stated that valuable information will relate directly to the decision makers in achieving organizational goals. Valuable information will assist member organizations to work more effectively and efficiently. According to Davis (2003) the quality of accounting information is defined as follows information quality is a global judgement of the degree to which these stakeholders are provided with information of excellent quality, with regard to their defined needs excluding user manuals and help screens (features of System Quality).

Hall (2011) stated that useful information has the following characteristics: relevant, timely, accurate, complete, and can be summarized. Similar statement was expressed by Schermerhorn (2011), information that is really useful for management meets the five test criteria as follows:

- 1) Timely—the information is available when needed; it meets deadlines for decision making and action.
- 2) High quality—the information is accurate, and it is reliable; it can be used with confidence
- 3) Complete—the information is complete and sufficient for the task at hand; it is as current and up to date as possible
- 4) Relevant—the information is appropriate for the task at hand; it is free from extraneous or irrelevant materials
- 5) Understandable—the information is clear and easily understood by the user; it is free from unnecessary detail

Then, based on the description above, the measurement of the quality of accounting information to be used in this research is timely, accurate, reliable, complete, and relevant.

Theoretical Framework

ERP systems is a software package that can be used to support the company's system (Gelinas & Dull, 2008). ERP systems is a model of an information system that enables organizations to automate and integrate the core business process (Hall, 2011). ERP systems are used to support the flow of information for the company's *business processes and operational database* (Hall, 2011), by implementing ERP



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systems, it can expected to generate accounting information quality, so it can be used in making the right decision (Brazel & Dang, 2005). In addition implementing ERP systems can be used to provide high quality information, timely, and relevant (Leon, 2008).

ERP systems are designed to solve the problems in the organization by integrating all aspects of the organization's operations (Romney & Steinbart, 2012). ERP systems capture quantitative and qualitative data, collect and organize data into useful information, and transform that information into knowledge that can be communicated to the whole organization (Jackson et al, 2009).

The above theory is reinforced by Ladewi's research (2014). Her research showed that the implementation of ERP systems affect the quality of accounting information. Similarly to the research conducted by Heryana & Rahman (2013), their conclusions on their research revealed that the implementation of ERP systems has a strong correlation with the quality of financial reporting. Alzoubi (2011) also shows that the integration / unification of the accounting information system which measured through the ERP systems can improve the output quality of the accounting and internal control in the company.

The hypothesis is as follows: Implementation of ERP systems affects the quality of accounting information

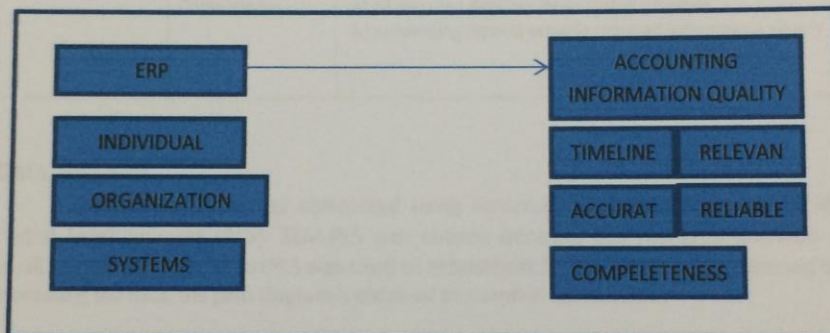


Figure 1. Research Model

Research Method

The type of this research is verification. The primary data (using questionnaires) was collected from department of financial management and regional asset in west java province, while the unit of observation is 59 employees in the accounting and reporting section.

Measurement items were developed based on the literature review and supported by prior research. My proposed measurement model involved 18 manifest variables loading on 2 latent constructs (Presented in table 1).

Table 1. Operazionalization of Variables

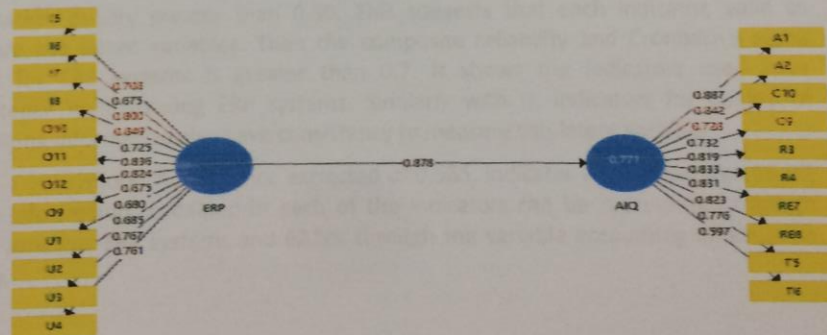
VARIABLE	DIMENSION	INDICATOR
ERP SYSTEMS (X)	User satisfaction	User satisfaction regarding overall satisfaction and satisfaction of certain of the application of the system.
	Individual impact	a) Increased individual productivity. b) Improving the performance of task c) Effectiveness and quality decision. d) Time to make decisions.
	Organizational impact	a) Operating costs of the organization. b) Increase in overall productivity.
ACCOUNTING INFORMATION QUALITY (Y)	Accuracy	a) fit between the information and the actual condition b) the information is free from material error
	Relevant	a) the content of the information in accordance with the expected goals b) information does not contain unrelated issues
	Timeliness	a) information is available when needed b) information easily accessed in order to make decisions in a timely manner
	Reliable	a) information can be accounted b) information reflects the situation and the existing conditions
	Completeness	a) all required data has been stored properly b) accounting reports provide required information clearly

Data Analysis

The data analysis was conducted using Structural Equation Modeling (SEM) Partial Least Squares (PLS). SEM-PLS was chosen because this research involved a small sample size and SmartPLS was used to estimation. Based on the results obtained by processing the data, the path diagram is obtained as shown in figure below.

Research Result

Furthermore, to test the hypothesis of the study, the data were processed using SEM-PLS. The results of full path diagram model as shown below:



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Figure 2. Full Path Diagram Model

Through weighting factors in Figure 2, the validity of each indicator can be further tested as well as the reliability of the construct latent variables. Indicators considered valid if it has a weighting factor of greater than 0.50. Then the composite reliability considered satisfied if the value is greater than 0.70. The following are the results of testing the measurement model of each latent variables used in this study.

Table 2
Construct Reliability and Validity

Latent Variable	Indicator	Weighting Factor	Latent Variable	Indicator	Weighting Factor
ERP Systems	U1	0.680	Accounting Information Quality	A1	0.887
	U2	0.685		A2	0.842
	U3	0.767		R3	0.819
	U4	0.761		R4	0.833
	I5	0.708		T5	0.776
	I6	0.675		T6	0.597
	I7	0.800		RE7	0.813
	I8	0.849		RE8	0.823
	O9	0.675		C9	0.732
	O10	0.725		C10	0.728
	O11	0.836			
	O12	0.824			

Variabel Laten	Cronbach's Alpha	Composite Reliability	AVE
ERP Systems	0.929	0.939	0.565
Accounting Information Quality	0.932	0.937	0.625

It can be seen the weight of each indicator for ERP systems and accounting information quality greater than 0.50. This suggests that each indicator, valid to measure the latent variables. Then the composite reliability and Cronbach's alpha values for ERP systems is greater than 0.7. It shows the indicators used have consistency in measuring ERP systems. Similarly with it, indicators for quality of accounting information also have consistency to measure this latent variable.

Furthermore, the variance extracted of 0.565, indicates that on average 56.5% of the information contained in each of the indicators can be represented through latent variables ERP systems and 62.5% through the variable accounting information quality.

Hypothesis testing

After each measurement model latent variables elaborated, hypothesis was tested. The result showed that the t statistic (3.079) greater than $t_{critical}$ (1.96), this mean that ERP systems affect the accounting information quality. This result provide empirical evidence that the more effective ERP systems will create the quality of accounting information. Then through the R-square value, it can conclude that ERP systems provide 87.8% effect against the accounting information quality.

Conclusion and Recommendations

There is an effect of ERP systems on quality of accounting information. The implementation of ERP systems is not an easy thing to do. Effective ERP systems could be achieve at department of financial management and regional asset in west java province by emphasizing the aspects of planning. Planning starts with coordinating all the resources, information and activities. Because the essential requirement of ERP systems is integration then we should be able to combine a variety of needs in one software in a single logical database, enabling all departments to share information and communicate. But we need to understand that the involvement of top and middle management are indispensable for the effectiveness of ERP systems. Without management understanding as decision maker then the ERP systems will be useless. Many factors inhibiting the implementation of ERP systems among others inadequate training, organizational culture, infrastructure issues and so on. By paying attention to these factors, it is unlikely that an effective ERP systems can be achieved. Other researches are expected to examine other factors affecting ERP systems and accounting information quality. It is also advisable for other researchers to conduct the research based on this results with the same research methods, on different samples.

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