

The Empirical Testing for the Effect of Organizational Commitment and Leadership Style on the Implementation Success of Enterprise Resource Planning (ERP) Systems and its Implications on the Quality of Accounting Information

¹Sri Mulyani and ²Endraria

¹Department of Accounting, Faculty of Economics and Business,
Universitas Padjadjaran, Bandung, Indonesia

²Department of Accounting, Faculty of Economics,
Universitas Muhammadiyah Tangerang, Kota Tangerang, Indonesia

Abstract: This study aims to examine the empirical testing for the effect of organizational commitment and leadership style on the implementation success of Enterprise Resource Planning (ERP) as well as the implications on the quality of accounting information. Survey was conducted on 33 state-owned enterprises to gather information and to test the hypothesis of a study. Data was analyzed with quantitative method using Structural Equation Modeling (SEM) with Partial Least Square (PLS) approach. Results of this study shown that organizational commitment and leadership style have significant effects on the implementation success of ERP systems and the implementation success of ERP systems have significant effects on the quality of accounting information.

Key words: Organizational commitment, leadership style, successful implementation of Enterprise Resource Planning (ERP), quality of accounting information, empirical testing

INTRODUCTION

In recent years, competition in economic globalization affects the trends, procedures and strategies in organization in developing the business (Lonnie and Jeffrey, 2007). Later, the data that have been processed will give values to a person organization or anyone as the information (Mulyani *et al.*, 2016). With the perfect product will create trust through the dissemination of information and decision-making (Aziz and Hafez, 2013). Furthermore information also is the data that has been processed devoted to a person organization or anyone in need, further he concluded that the data has been processed will produce information but such information could again be the data that will generate more information (Mulyani, 2016a, b). Subsequently presented Fig. 1 on the follow-up on the results of Supreme Audit Institution/BPK RI Semester 1 2015 are as follows.

The monitoring results TLRHP CPC in SOEs reveals that in the period of the first half of 2015 there were 798 recommendations Rp. 2.22 trillion worth. Of these, the recommendations have been acted upon in accordance with the recommendation of as many as 23 recommendations (2.88%) worth Rp. 47.88 million. A total of 11 recommendations (1.38%) worth Rp. 47.71 billion is

not in accordance with the recommendations and/or in the process of follow-up and as many as 764 recommendations (95.74%) worth Rp. 2.18 trillion has not been followed. Against the recommendation, the entity has followed up with depositing/transferring assets to the state amounting to 3.12 billion.

Literature review

Organizational commitment: Mathis and Jackson (2002) explained that organizational commitment is the extent to which employees believe and accept the organization's goals and inclinations to remain with the organization. Furthermore, Bennett and Kaufman (2011) stated that organizational commitment is defined as a belief about the extent to which an employee wants to stay with the organization and be willing to exert all efforts in maintaining the organization.

Turner (2014) explained that there are three components of commitment models include: affective commitment involves emotional bond that aims to identify the involvement of employees with the organization, ongoing commitment involves the perceived costs without leaving the organization, normative commitment involves feelings and have an obligation to say so in the organization. From the opinions of the above can be said

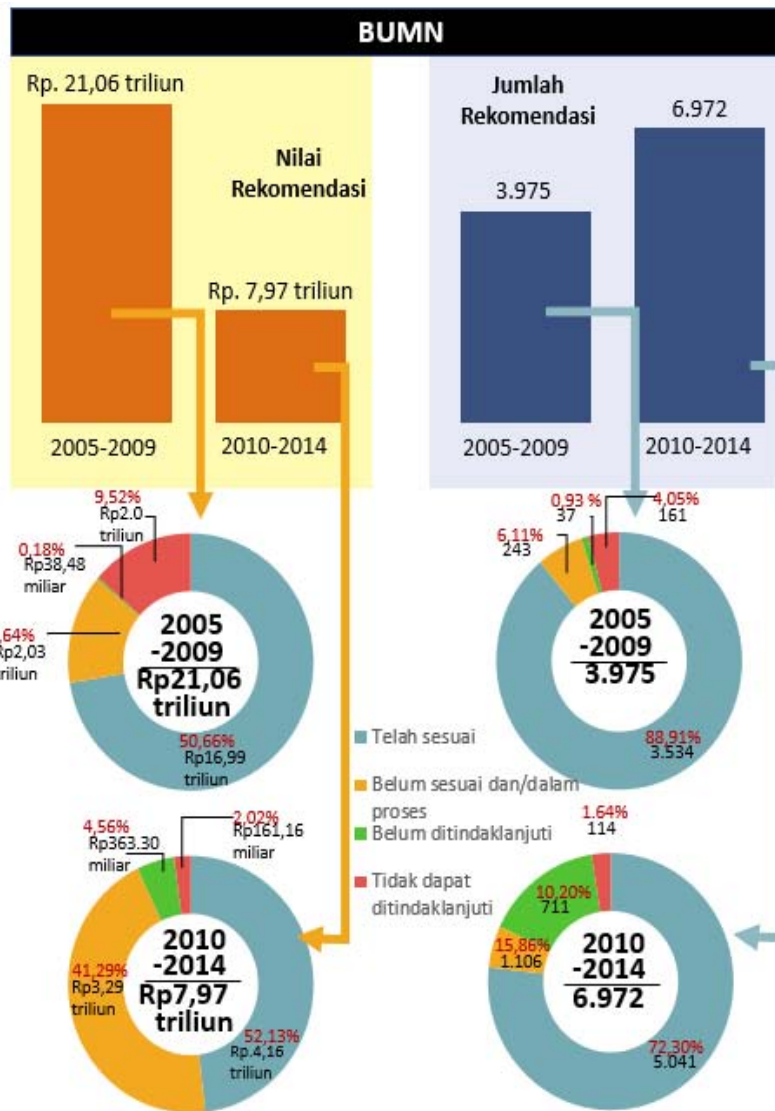


Fig. 1: The Monitoring Results TLRHP CPC Semester 2015

that the dimensions and indicators of organizational commitment that will be used in this study include: affective commitment including: employee's emotional attachment to the organization, identification of employees related to the involvement with the organization, normative commitments include: reflecting the sense of obligation to continue working for the organization, ongoing commitment including: remain with the organization such as when leaving interrelated.

Leadership style: Ciulla (2004) explained leadership style as a relationship between the leader and the followers who intend to make real changes reflecting their shared goals. As for Kelly (2010), leadership style is generally defined as an interaction process where leader influences the led in the achievement of common goals.

Furthermore, Lewis *et al.* (2013) described leaders as those who have followers and could given influence among them. Jones (2006) defined leadership style as a process in influencing other people to achieve mission and objectives by providing directions and motivation. Meanwhile, Bass and Stogdill (1990) explained leadership style as a form of excellence from one or some individuals in a group in the process of social phenomenon control.

Bertocci (2009) revealed that the transactional leader uses the concept of path-goal as a framework but also a leader will adjust the goals, direction and mission of the organization to achieve effectiveness where flexibility is the most important thing that should be owned by the leader and his followers. While transformational leaders have the ability to inspire and motivate followers to

achieve results that exceed expectations. This capability is generally based on three characteristics, among others, described as follows: Kharisma leader able to instill a sense of value, respect and pride and to articulate a vision, individual attention: leaders pay attention to the needs and desires of his subordinates and subordinates develop as professionals, intellectual stimulation: the leader helps followers rethink how rational to examine the situation and urged his followers to be creative.

From the opinions of the above can be said that the dimensions and indicators of leadership that will be used in this study include: transactional leadership; contingent rewards: giving awards to businesses; acknowledge good performance, management by exception: maintaining the status quo; intervene when subordinates do not meet acceptable levels of performance, take corrective action to improve performance, transformational leadership; charisma: provides vision and mission, inspire, build trust and respect, individualized consideration: behavioral evidence about attention and support should be directed to any individual or subordinates, inspiration: communicating with high expectations, uses symbols to focus its efforts in promoting the objective of each individual.

The success implementation of Enterprise Resource Planning (ERP) systems: Madu and Kuei (2005) defined a Enterprise Resource Planning/ERP is system wide application software that is used to manage and coordinate information among the different business units of an organization and among its suppliers, ERP helps to ensure effective planning, optimization of information and other resources and empowers employees to make better decisions.

Monk and Wagner (2013) described Enterprise Resource Planning (ERP) systems are core software programs used by companies to integrate and coordinate information in every area of the business. ERP programs help organizations manage company-wide business processes, using a common database and shared management reporting tools.

Furthermore, Lee (2009) described Enterprise Resource Planning (ERP) is the Integrated software packages designed to provide complete integration of an organisation's business information processing systems and all related data). Furthermore, Mulyani *et al.* (2016) stated that an information systems consist of many components, namely: hardware, brain ware, procedure, database, software, infrastructure of information technology, internal control and security measures and performance of system developer. Those things are interacted to build a synergy related one to each other. The interactions among those arrangements are intended to support the organization.

Furthermore, DeLone and McLean (2003) provided a description of the term "model of success" where it is said that success can be seen from the quality system where the system is interrelated. Davis (1989) explained that the factors which can measure success in the information system is perceived usefulness, perceived ease of use and user acceptance of information technology. From the opinions of the above can be said that the dimensions and indicators in the development of the model in this study will use the success of information systems, among others: perceived usefulness with indicators; work more quickly intervening, job performance, effectiveness, perceived ease of use with indicators: easy to learn, easy to become skillful, easy to use, easy to remember, Information System (IS) use (usage) with indicators: frequency of use, hours of use.

Quality of accounting information: Hall (2016) revealed that information includes the processes of compiling organizing, formatting and presenting information to the users. Meanwhile, Laudon and Laudon (2013) concluded that information means data that have been formed into something meaningful and useful to humans. The organization's ability to compete is necessary if the management can make the right decisions based on the information (Bodnar and Hopwood, 2013). Information means data presented in a form that is useful in decision-making activity (Gelinas *et al.*, 2014).

Romney and Steinbart (2015) explained that information consists of organized and processed data run to give meaning to the users. Users generally require information to make decisions or to improve the decision-making process. As a general rule, users can make better decisions as the quantity and quality of information increase. Characteristics that make information is useful are relevance, reliability, completeness, timeliness, understandability and verifiability (Mulyani, 2016a, b). Richardson *et al.* (2014) explained that the information is defined as data organized in a way that is meant to be useful to the user. This data is often processed (aggregated, sorted, etc.) and then combined with the appropriate context.

On the other hand, information not only could help making a decision but also can affect the users in performing the action (Hall, 2016). Information is also defined as organized data with significance and functionality for the management (Richardson *et al.*, 2014). Information also means processed data that give certain value to users and further converted into meaningful and useful contexts and have added value for the users (Bose, 2012). Information is an activity in converting data into useful context (Brien and Marakas, 2010). Information is also an activity in which data have been be modified or operationalized into meaningful and useful context (Obermeyer and Pinto, 2008).

Information is the data processed into meaningful and useful form for humans (Laudon and Laudon, 2013). Hinton (2006) said that information is data that have been processed into information that will be used in decision-making. Next, information is the data presented in useful shape with specific purposes (Pride *et al.*, 2008). It is similar to previous information is data that have been organized and processed to provide meaningful context and improve decision making (Romney and Steinbart, 2015).

Information is essential for any task that needs to be completed within any organization. In order to ensure that the person is responsible for a particular task receives (Picot *et al.*, 2008). The same thing is stated by Pearson and Saunders (2010) that information is the data that have been processed in order to produce something relevant and purposeful. In general, information is the data processed or modified in the form of or structure which are suitable for humans (Kendal and Creen, 2007).

Furthermore, Richardson *et al.* (2014) revealed that useful information has the following characteristics: relevant. To be useful, information must be relevant to making a decision. Said information is relevant if it affects business decisions. In other words, the relevant information can help users predict what will happen (predictable) future or past evaluate how decisions are actually working (feedback value). It is also relevant if the information received to influence their decisions (timeliness), reliability. Reliable information if the user can rely on it to be free of bias and error reliable information can be verified by internal and external parties and constitute the underlying economic substance of the transaction. Thus the dimensions and indicators used in this study are as follows: relevant (relevance); having the benefit of feedback, the information enables the user to confirm or correct their expectations in the past, And al (reliability); presentation of honest: information honestly describe transactions and other events should be presented or that may reasonably be expected to be presented, neutrality: informasi directed to the general needs and not in favor of the needs of a particular party, complete (completeness); presented by complete in accordance with the terms and supplies, timely information (timely information); available in times of need, the information presented to date.

Theoretical framework and hypotheses development for the influence of organizational commitment and leadership style on the implementation success of Enterprise Resource Planning (ERP) systems and its

implications on the quality of accounting information: Similar to the previous arguments, Schwalbe (2009) revealed that organizational commitment is one of the key factors in the application of information technology. In a research by Newman and Sabherwal (1996), it is acquired that high commitment is required in building an information system in organizations on the other hand, low commitment will slow down the development of information system. Therefore, based on the background, the first hypothesis in this study is:

- H₁: organizational commitment affects the successful implementation of Enterprise Resource Planning (ERP)

Gunasekaran (2008) explained that one of the concepts used in fundamental management and information technology management apart from the technology itself is by directing role through motivation and leadership. Therefore, the second hypothesis in this study is:

- H₂: leadership style affects the successful implementation of Enterprise Resource Planning (ERP)

DeLone and McLean (2003) argued that the quality of accounting information system is an inherent characteristic of the information about the system itself. The quality of information system is also defined as the perceived ease of use of how influential the level of computer technology relatively easy to understand and use (Davis, 1989). This shows that should the quality of accounting information be easily obtained they do not require the efforts to use it so they will have more time to do other tasks that are likely to improve their overall performance (Chin and Todd, 2010). Therefore, the third hypothesis in this study is:

- H₃: successful implementation of Enterprise Resource Planning (ERP) affects the quality of accounting information. As explained above, in the framework of this study may be visualized by Fig. 1

MATERIALS AND METHODS

Kothari (2004) explained that research methodology is the means or methods used systematically in solving research problems. Kothari (2004) also pointed out that descriptive research includes not only surveys and

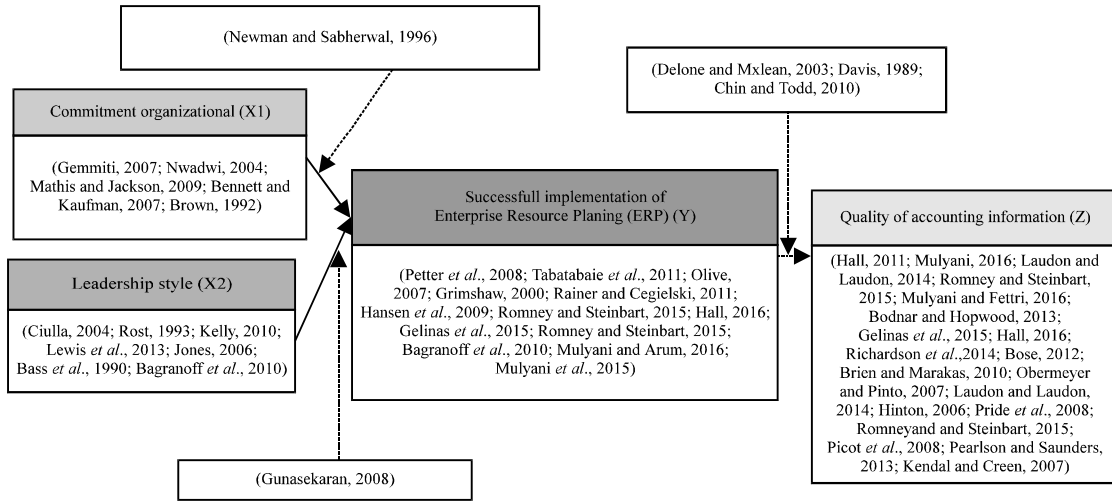


Fig. 2: The framework

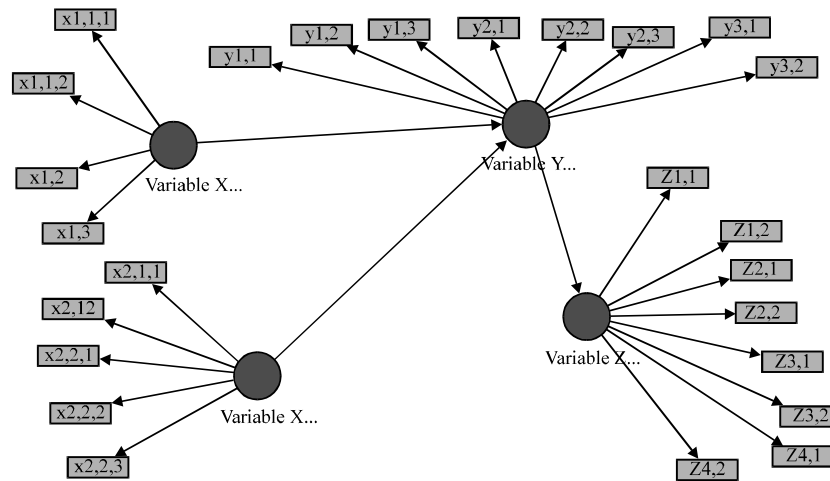


Fig. 3: Partial least square

different fact-finding but also type inquiries. The main objective of descriptive research is to describe the situation as it exists at the time. In the business and social studies Ex post facto is often used for descriptive research study (Fig. 2 and 3).

Sample and data collection: Based on the definition above, population in this study includes all state-owned enterprises in Bandung because it is based on Sekaran and Bougie (2013) in which they stated that the target population should define or describe the elements, geographical conditions, boundaries and time. Therefore, the number of state-owned enterprises located in Bandung, West Java in 2015 is amounted to 36 companies. Maxfield and Babbie (2009) also described

sample as the representative of the population selected if the characteristic aggregate of the sample have an approximate characteristic aggregate similar to the population. Strengthening the previous statements from Sekaran and Bougie (2013), sample is a part of the population which consists of selected members of the part itself or in other words some but not all elements of the population would make up the sample. Umar (2002) pointed out that in order to determine the minimum number of the samples required if the population size is known, Slovin's equation may be used as follows:

$$n = \frac{N}{1 + Ne^2}$$

Table 1: Variable, proxy and measurement

Variabel (1)	Dimension (2)	Indicator (3)	Scale (4)
Organizational commitment (X ₁) Mathis and Jackson (2002), Bennett and Kaufman (2011)	Affective commitment	Employee's emotional interest in the organization and employee's self-identification related to the involvement with the organization	Ordinal
	Normative commitment	Reflecting the sense of obligation to continue working for the organization	
	Sustainable commitment	Remain with the organization such as still feel attached when leaving it	
Leadership style (X ₂) Ciulla, 2004; Kelly, 2010, Lewis <i>et al.</i> (2013), Jones (2006), Bass and Stogdill (1990)	Transactional leadership	Contingent reward: Management by exception: Charisma	Ordinal
	Transformational leadership	Individualized consideration: inspiration	
Implementation success of enterprise resource Planning (ERP) (Y) Tabatabaie <i>et al.</i> (2011), Olive (2007), Grimshaw (2000), Rainer and Casey (2007), Hansen <i>et al.</i> (2007), Romney and Steinbart (2015), Hall (2016), Gelinas <i>et al.</i> (2014), Romney and Steinbart (2015), Bagranoff <i>et al.</i> (2010), Bagranoff (2010), Mulyani <i>et al.</i> (2016),	Perceived usefulness	Work more quickly Job performance Effectiveness	Ordinal
	Perceived ease of use	Easy to learn Easy to become skilful Easy to use	
	Information System (IS) use (usage)	Frequency of use Hours of use	
	Relevance	Having feedback benefits Information enables the users to affirm or correct their previous expectations	
	Reliability	Ethical presentation: information explains truthfully the transactions and other incidents that should be presented Neutrality: information is directed to the common needs and does not stand on a particular side	
Quality of accounting information (Z) Hall (2016), Mulyani (2016), Laudon and Laudon (2013), Romney and Steinbart (2015), Bodnar and Hopwood (2013), Gelinas <i>et al.</i> (2014), Hall (2016), Richardson <i>et al.</i> (2014), Bose (2012), Brien and Marakas (2010); Obermeyer and Pinto (2008), Laudon and Laudon (2013), Hinton (2006), Pride <i>et al.</i> (2008), Romney and Steinbart (2015), Picot <i>et al.</i> (2008) Pearlson and Saunders (2010), Kendal and Creen (2007)	Completeness	Presented completely In accordance with the regulations and requirements	Ordinal
	Timely information	Available when needed Updated information	

Where:

n = The sample size

N = The population size

e = Tolerated inaccuracy due to sampling error (5%)

By using the above equation, it is found that the samples in this study are 33 state-owned enterprises in Bandung, West Java.

Variable operationalization: Measurement for each variable was based on the operationalization of the variables as in Table 1.

Data analysis: As also noted by Sekaran and Bougie (2013), on data analysis, the collected data were statistically analyzed to see whether the generated hypothesis are supported. The scheme for partial least square in general may be seen are as follows: size used for this study is if the number from the correlation between the item score/component score with construct score is more than 0.7 and said to be high and if the number is between 0.5-0.6, it is said to be sufficient. The greater the GoF value is between 0 (poor fit) to 1 (perfect fit). Discriminant validity is assessed based on the validity of the constructs compared to the other constructs. Discriminant validity is based on the AVE

(Average Variance Extracted) value; recommendation for the value is the AVE, <0.5. Evaluation on the measurement model (outer model) can be identified from the Composite Reliability (CR) where the value is expected 0.70 higher.

RESULTS AND DISCUSSION

The influence of organizational commitment (X1) to the successful implementation of Enterprise Resource Planning system (ERP): The hypothesis test for the organizational commitment variable (X1) is hypothesized to affect the successful implementation of Enterprise Resource Planning (ERP) system. The following are the results of the partial significance test of the hypothesis through statistical hypothesis:

- $H_0: \gamma_1 = 0$: organizational commitment (X1) does not affect the successful implementation of ERP (Table 2)
- $H_a: \gamma_1 \neq 0$: organizational commitment (X1) affects the successful implementation of ERP

From the results of data processing using SmartPLS 3.0. It is obtained with the following assumptions:

- If $t_{count} > t_{crisis}$, then H_a is accepted and H_o is rejected and
- If $t_{count} < t_{crisis}$, then H_a is rejected and H_o is accepted

Table 2 shows the results of data processing: according to the table above processed using SmartPLS Software Version 2.0, the t_{count} value is 2.769860 which is $< t_{crisis}$, 1.96. It can be concluded that $t_{count} > t_{crisis}$ thus organizational commitment (X1) affects the successful implementation of Enterprise Resource Planning (ERP).

The influence of leadership style (X2) on the successful implementation of Enterprise Resource Planning system (ERP):

The hypothesis test for the leadership style variable (X2) is hypothesized to affect the successful implementation of Enterprise Resource Planning (ERP) system. The following are the results of the partial significance test of the hypothesis through statistical hypothesis:

- $H_o, \gamma_1 = 0$: leadership style (X2) does not affect the successful implementation of ERP
- $H_a, \gamma_1 \neq 0$: leadership style (X2) affects the successful implementation of ERP (Table 3 and 4)

From the results of data processing using SmartPLS 3.0. It is obtained with the following assumptions:

- If $t_{count} > t_{crisis}$, then H_a is accepted and H_o is rejected and
- If $t_{count} < t_{crisis}$, then H_a is rejected and H_o is accepted

The table shows the results of data processing: according to Table 3 processed using SmartPLS Software Version 2.0, the t_{count} value is 9.399005 which is $< t_{crisis}$, 1.96. It can be concluded that $t_{count} > t_{crisis}$ thus Leadership Style (X2) affects the successful implementation of Enterprise Resource Planning (ERP).

The influence of successful implementation of Enterprise Resource Planning (ERP) system to the quality of accounting information:

The hypothesis test for the successful implementation of ERP is hypothesized to affect the quality of accounting information. The following are the results of the partial significance test of the hypothesis through statistical hypothesis:

- $H_o, \gamma_1 = 0$: successful implementation of ERP does not affect the quality of accounting information
- $H_a, \gamma_1 \neq 0$: successful implementation of ERP affects the quality of accounting information

Table 2: Significance test on the influence of organizational commitment (X1) to the successful implementation of Enterprise Resource Planning (ERP)

Path coefficient	t_{count}	t_{crisis}	Assumption	Conclusion
0.223764	2.769860	1.96	$t_{count} > t_{crisis}$	Hypothesis accepted

Table 3: Significance test on the influence of leadership style (X2) to the successful implementation of Enterprise Resource Planning (ERP)

Path coefficient	t_{count}	t_{crisis}	Assumption	Conclusion
0.739118	9.399005	1.96	$t_{count} > t_{crisis}$	Hypothesis accepted

Table 4: Significance test on the influence of the successful implementation of Enterprise Resource Planning (ERP) to the quality of accounting information

Path coefficient	t_{count}	t_{crisis}	Assumption	Conclusion
0.903013	37.189924	1.96	$t_{count} > t_{crisis}$	Hypothesis accepted

PLS calculation results

From the results of data processing using SmartPLS 3.0. It is obtained with the following assumptions:

- If $t_{count} > t_{crisis}$, then H_a is accepted and H_o is rejected
- If $t_{count} < t_{crisis}$, then H_a is rejected and H_o is accepted

Table 4 shows the results of data processing: according to table above processed using SmartPLS Software Version 2.0, the t-count value is 37.18992 which is $< t_{crisis}$, 1.96. It can be concluded that $t_{count} > t_{crisis}$ thus the successful implementation of ERP affects the quality of accounting information.

CONCLUSION

Based on the results and discussion of the research described in previous chapters, it can be concluded that this study provides empirical evidence of the critical role of organizational commitment and leadership style to the successful implementation of ERP systems and ERP systems can also improve the quality of accounting information. In order to develop as a science of accounting, accounting information systems in particular, this research has proved that the organization's commitment and leadership style variable has a positive influence on the successful implementation of ERP system in Bandung and the implications on the quality of accounting information in the state especially in western Indonesia Bandung Jawa.

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