Examining Accounting Information System in a Shared Environment: The Measure of System Adoption Efficacy – Indonesia Case

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ABSTRACT

Missaliance between the analysis of users' requirement and the system specification follow-up has been seen as among the primary impediment of system implementation success. Firms aspiring the merits from the acquisition of accounting information system (AIS) should therefore discern the importance of aniticipating detrimental challenges that may emerge from various dimensions by virtue of organizational transformation. Based on prior IS adoption study, it is essential to look into the relationship between user roles, user satisfaction and the successfulness of IS adoption. Prior research has addressed many contingency aspects of IS success, in which recent evidences have mainly been found from enterprise-wide information system viewpoint, such as enterprise resources planning. Despite many studies having been conducted, finding from studies with respect to enteprise-wide accounting module have largely been unsubstantiated. This research builds on DeLone and McLean IS success model to examine the factors related to system that contribute to user satisfaction. Using Covariance Based – Structural Equation Modeling, the research investigates the relationship between three latent variables, namely system quality, information quality and service quality with user satisfaction, system use, and individual impact. System quality perception was included to enhance more theoretical explanation power. Outcome from 200 data extracted from Indonesia corporations showed that the majority of our hypotheses were significantly supported. Among them were the relationships between system quality and user perception on system quality; between information quality and system use and end-user satisfaction, whereas the effect of service quality on system use and the effect of service quality perception on end-user satisfaction showed non-significant causal relationship.

Keywords: information system, user satisfaction, system quality

1. RESEARCH BACKGROUND

The integration of accounting information system in a form accounting software and its related infrastructure and procedures has changed the information processing pattern that previously existed in the manual environment. Similar change can also be seen from the end-user perspective as the operator side of the accounting software. These environmental changes give effect to cultural shock which demand trainings and workshops to amplify adaptation such that users can familiarize with the new environment.

The problem that usually occurs in the use of accounting software packages is its incompatibility with the intrinsic need of the organization's business processes and

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information (Janson and Subramanian, 1996; Lucas, Walton, and Ginzberg, 1998). The expectation gap that occurs between software applications with business processes could potentially lead to significant problems to users. Companies that change their business processes in order to adapt with the accounting applications logic would drive the users to learn again to overcome the complexity of software in doing their work.

Another serious implication for adopting accounting softwares by a company is that the variety of the features being offered and the reporting requirements of an enterprise information system (IS) often conflict. This in turn entails the end-users to further adapt to the accounting software newly introduced, even to the situation where end-users have to reconfigure the business process underneath. Unresolved discrepancies could lead the users to become depressed, unsatisfied, bringing them on consternation which will eventually lead to a declined performance (Tjakrawala and Cahyo, 2010). If users are not satisfied with the software being used, they will look for ways to make the system no longer be used. End User Computer Satisfaction (EUCS) can be used as a signal for management to overcome the difficulties and this discrepancy (Istianingsih and Vitello, 2008). Seddon (1997) suggests that by addressing measurement weaknesses better, end-user satisfaction can be used to measure the success of the profits or accounting software used by the company.

This research builds on the work from Mc Gill et al (2003), DeLone and McLean (1992), and DeLone and McLean (2003). Furthermore, it combines the results of these studies to test whether the SAP accounting software adopted by the company has been successfully implemented as perceived by the end-users and have a positive impact on individual performance.

This study aims at examining whether (1) the quality of SAP accounting software system has significant positive effect on the perception of the end-user; (2) the perceived quality of SAP accounting software system significantly affects end-user satisfaction; (3) the perception of the quality of information of SAP accounting software has significant positive effect on end-user satisfaction; (4) the perception of service quality of SAP accounting software significantly affects end-user satisfaction; (5) the perceived quality of SAP accounting software system has significant positive effect on the intention of the end user to use SAP accounting software; (6) the perceived quality of the SAP accounting software update has significant positive effect on the intention of the end-user to use SAP accounting software; (7) the end-user satisfaction has significant positive effect on the intention of the end-user to use SAP accounting software; (8) the intention of the end user to use SAP accounting software has significant positive effect on the individual performance; and (9) the end-user satisfaction has significant positive effect on the individual performance.

Our results indicate that three system characteristics as postulated by D&M IS Success Model largely show evidence of significant influences on other endogenous variables such as the perception on system quality, system use and the end-user satisfaction. Service quality however has shown significant influence only on end-user satisfaction, whereas its influence on system use is found to be non significant. Furthermore, the recent study also shows that the structural paths leading to the individual impact are largely significant, except for the relationship between system quality perception with end-user perception.

In the next section, we present the structuring of the study. The literature section follows. We then present our hypotheses, continued with the research method explanation. Results of the research will be discussed in the subsequent section. And finally the conclusion section closes the flow of the paper.

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2. LITERATURE REVIEW

2.1. Accounting-based Modules

Accounting applications are defined as series of commercially available computer programmes with an intention to give instructions to computer for data processing, in this case, to perform the processing of accounting-based and business process data. (Rama & Jones, 2006; Romney & Steinbart, 2006; Turban, et al, 2008 in Tjakrawala and Cahyo, 2010). SAP (System Application and Products in Data Processing) portrays an example of accounting software. It is a software initially developed to support organizations in conducting their operational activities more efficiently and effectively through a shared infrastructure and environment. SAP also marks the term coined as Enterprise Resources Planning (ERP) which is an IT and management tools to help companies plan and perform various day-to-day operational activities.

SAP or SAP R/3 is the world's largest ERP applications and also in Indonesia. In fact, SAP holds more than 80% of ERP application in Indonesia (www.sap.com/indonesia). Basically SAP provides all solutions to all functions within the company, in any industry. But in general, SAP modules often used are as follows:

1. FICO (Financial Controlling)
2. SD (Sales & Distribution)
3. MMPP (Material Management, Production Planning)
4. HR (Human Resources)

These specialized business process-based modules are integrated into a single unit that share single enterprise-wide database and platform. A business process will ignite a number of events that eventually produce event-based data that shall be captured through forms and reports. The forms reflect information of interrelated business processes that actually constitute the whole organization activities across functions. In applying ERP, companies typically must anticipate and provide justification for the very large capital expenditure, depending on how complete the module that will be used. This system is a long-term system that should be monitored and continuously adapted in accordance with the business rules of each company.

2.2. Information System Successfulness Model

DeLone and McLean (1992) build a taxonomy consisting of the dimensions of the success of information systems, ie:

1. System Quality
2. Information Quality
3. Use
4. User Satisfaction
5. Individual Impact
6. Organizational Impact

The results of the DeLone and McLean's research showed that, among the six categories that built the success of this information system, there is a linkage and dependency which then determines the success or failure of the implementation of an information system.

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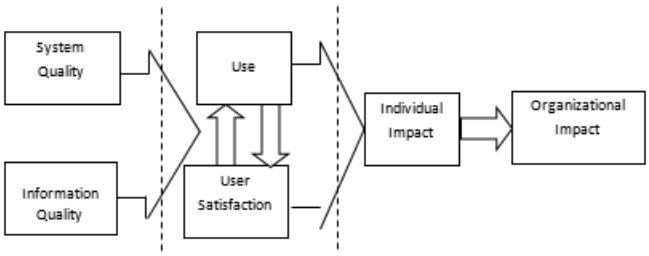
The research model of DeLone and McLean's (1992) research can be seen in the following Figure 2.1:

Figure 2.1.
Delone and McLean Research Model (1992)



Shannon and Weaver (1949) classify the success of information systems into three parts, namely at the technical level, semantic level, and the level of effectiveness. At the technical level, the success of a system is judged on accuracy and ruthless efficiency in generating the information. At the semantic level, the success of a system is measured by its ability to convey the intended purpose. While the level of effectiveness of system successfulness is seen on the extent of their impact on the receiver output.

Mason (1978, in DeLone and McLean 1992) defines success as an information system as a hierarchical series of events that appear on the effect of the use of such information systems. So, Mason defines the success of an information system in the form of effects produced at each level of the system information receiver. Zmud (1979) in a study on the successful implementation of management information systems classifies three categories of information system success, namely user performance, usage, and user satisfaction. Ivan and Olson (1984), on a study of successful implementation of management information systems develop two categories of information system success. They are coined as system quality and system acceptance. The category is subsequently grouped as system use, system impact on user behavior, and information satisfaction.

DeLone and McLean (1992) categorize the success of information systems into six interrelated aspects, namely the system quality, information quality, system use, end-user satisfaction, individual impact, and organizational impact. Edberg and Bowman (1996) argue that construct Systems Quality in DeLone and McLean model combines subjective and objective measurements related to the software user's ability to develop and use the system. Therefore the system is further decomposed into two constructs, namely System Quality and Perceived System Quality.

Ten years later, DeLone and McLean (2003) enhance their IS successfulness model by including one additional variable, Service Quality. The instrument measured the service quality variables are as follows:

1. The information system has the hardware and software up-to-date.
2. The information system reliable
3. Employee information systems provide a fast response to the customer (responsiveness)
4. Employees of information systems have the knowledge to get the job done well (assurance)

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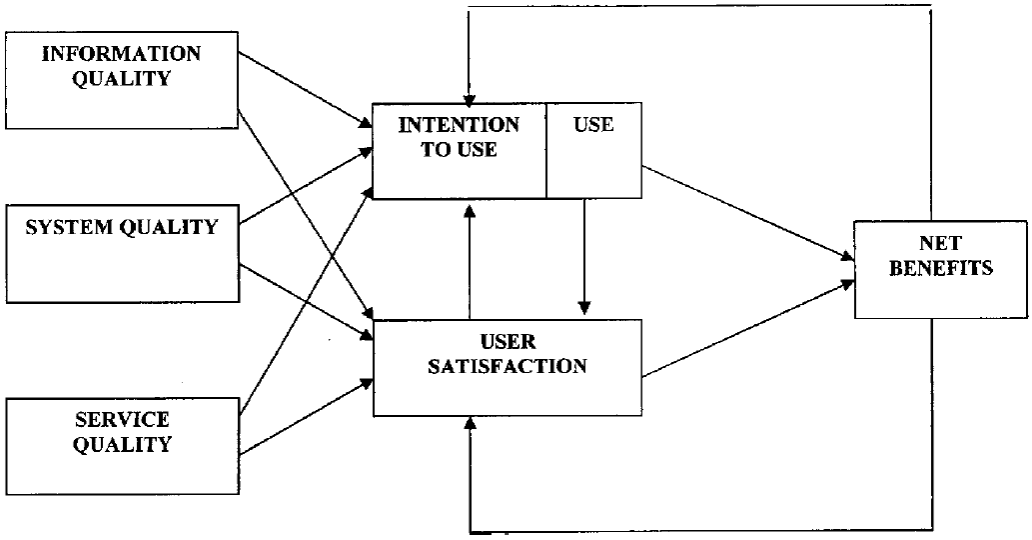
5. The information system has users who empathy.

Model DeLone and McLean (2003) can be seen in Figure 2.2. below:

Figure 2.2.
Success Model HR Information Systems (2003)



3. HYPOTHESIS

System quality is characteristics of the information inherent to the system itself (DeLone and McLean (1992). Slightly similar description to system quality is also defined by Davis et al., (1989) and by Chin and Todd (1995) as the perceived ease of use, i.e. how much technology perceived computer is relatively easy to understand and use. While perceived usefulness is defined as the degree to which a person believes that using a particular system can improve performance (Davis, 1989).

The study that use the variables usefulness and ease of use to measure the success of information systems has been carried out by Segars and Grover (1993), Chin and Todd (1995), as well as McHaney and Cronan (2001). The quality of information is the output generated by the information system used (DeLone and McLean, 1992). Seddon (1997) states that the quality of information produced by the information system will affect the perceived usefulness.

Seddon (1997) conducts a study to see the connection between the quality of the perceived usefulness of information. The result of the study on the relationship between these two variables has been supported by Li (1997) and Rai et al. (2002). If users is confident with the quality of accounting software system they use, and feel that using such a system is not difficult, then they will believe that the use of such a system would provide greater benefits and will improve their performance. If the information generated from the accounting software is more accurate, timely, and reliable, then it will further enhance the confidence of system adopters. To that end, the increase fo user confidence in information systems, is expected to further improve their performance.

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Adams et al. (1992) show empirical evidence of a positive relationship between usefulness and ease of use. Iqbaria, Guimaraes, and Davis (1995) in their study using the technology acceptance model (TAM) shows the influence of perceived ease of use on perceived usefulness. The test results Mao and Palvia (2006), as well as Simon and Paper (2007), shows the influence of perceived ease of use on perceived usefulness.

User satisfaction information system is about how users view information system can schowcase the reality and not solely on the techical quality of the engineererd system (Guimaraes, Staples, and McKeen, 2003). In the research literature and in practice, user satisfaction is often used as a surrogate measure of the effectiveness of information systems (Melone, 1990). The results obtained DeLone and McLean (1992), McKiney et al., (2002), Rai et al., (2002), McGill et al., (2003), Almutairi and Subramanian (2005), as well as Livari (2005) indicate that the quality of the information system positively affects the users satisfaction.

Seddon and Kiew (1996), Rivard, Poirier, Raymond and Bergeron (1997), Roldan and Millan (2000), Almutairi and Subramanian (2005), Istianingsih and Wijanto (2008), argue that the perception of the quality of the system significantly affect end-user satisfaction.Almutairi and Subramanian (2005), Kulkarni et al (2006), Wu and Wang (2006), Cheung and Lee (2005), Qian and Bock (2005), Schaupp et al (2006), Seddon and Kiew (1996), Roldan and Millan (2000), Kim and McHaney (2000), McKiney et al (2002), Rai et al (2002), Istianingsih and Wijanto (2008) argue in their research that the quality of information significantly affect end-user satisfaction.

Igbaria and Tan (1997), Fraser and Salter (1995), Rai et al (2002), Bokhari (2005), Garrity et al (2005), Kulkarni et al (2006), Wu and Wang (2006), Mao and Ambrose (2004), Qian and Bock (2005), Schaupp et al (2006), argue that the end-user satisfaction significantly affect the use of the system. Bradley et al (2006), Clay et al (2005), Qian and Bock (2005), argued that the quality of information influences the system usage. Bradley et al (2006), livari (2005), Sabherwal et al (2006), Clay et al (2005), Mao and Ambrose (2004), argue that the quality system is significantly affecting system usage. Gatian (1994), Gelderman (1998), Igbaria and Tan (1997), Etezadi-Amoli and Farhoomand (1996), Roldan and Millan (2000), Livari (2005), Qian and Bock (2005), argue that end users satisfaction significantly affects the individual impact. Almutairi and Subramanian (2005), Mao and Ambrose (2004), Qian and Bock (2005), argue that the use of the system significantly affects the individual impact.

In research on IS successfulness model conducted by Urbach, Smolnik, Riempp (2008: 9), they find that the most significant associative relationship in DeLone and McLean information system successfulness model is among the Quality System with User Experience. SatifactionAnother associative relationship appears to be more significant is the relationship between Information Quality with the End User Satisfaction, System Use with End User Satisfaction, and Quality System with System Usage.

To that end, we establish the following hypotheses for the operationalization of the present study:

H1: System Quality has significant positive effect on the System Quality Perception.
H2: Information quality has significant positive effect on the use of the system
H3: Information quality has significant positive effect on end-user satisfaction.
H4: Service quality has significant positive effect on the use of the system
H5: Service quality has significant positive effect on end-user satisfaction.
H6: System quality perception has significant positive effect on the use of the system.
H7: System quality perception has significant positive effect on end-user satisfaction.
H8: The use of system has significant positive effect on individual impact

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H9: The satisfaction of the end user has significant positive effect on individual impact.

4. RESEARCH METHODOLOGY

4.1. Method and Technique of Data Gathering

This study used primary data which is a research data obtained directly from the original source (Sekaran, 2003). The unit of analysis in this research was all respondents who use SAP accounting software in companies in which the respondent works. The data collection was conducted by survey through questionnaires sent to respondents through the help of a contact person and also via e-mail. Questionnaires were sent, along with a cover letter containing instructions and explanations of research purposes.

Method for sample selection in this research is purposive sampling, which is a method of sampling to be based on certain criteria (Sekaran, 2003). The criteria were a sample of respondents that have been working with a SAP accounting software for at least one year, indicated sufficient familiarity with ERP environment. The sample size was determined based on the number of respondents that returns a list of questions.

4.2. Research Model

This study used a form of Structural Equation Model (SEM). Chin and Todd (1995) in Istianingsih and Wijanto (2008) conducted a study based on the notion that the use of Structural Equation Modeling (SEM) with the program (LISREL, EQS, or PLS), can enhance the analytical technique in information systems research. This analysis technique is important to understand the problems that occur in information systems research. The software used to test the model in this study was 8.8 full version lisrel program.

The research model is a modified model of information system success of DeLone and McLean (1992) and McGill (2003), by adding a latent variable quality of service and three variables observed, namely: (1) tangibles of information system, (2) the reliability of information system and (3) assurance.

4.3. Variable Operationalization

4.3.1. Latent Variable

Measurement of latent variables in this study refers to research conducted McGill et al (2003). Latent variables are key variables that are the focus of attention in this study. This variable is an abstract concept that can only be observed indirectly and imperfectly through its effect on the observed variables (Wijanto, 2006).

Latent variables contained in this research consisted of seven (7) variables, consisting of:

1. System Quality (SQ)

The System Quality in this research is the accuracy and efficiency of the SAP accounting software that plays a role in generating information for further processing. This variable is measured by 14 questions with five Likert scale responses spanning from strongly disagree to strongly agree. The higher score this variable, meaning the quality of the higher SAP accounting software based on the experience of the user.

2. System Quality Perception (SQP)

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Perceived quality of the system in question in this research is the user's perception of the impact of the use of SAP accounting software to the improved performance of the end users. These variables are measured by four questions with five Likert scale from strongly disagree to strongly agree. The higher score this variable, meaning the quality of the higher SAP accounting software based on the initial perception of the .

3. Information Quality (IQ)

The quality of the information referred to in this study is the perception of the users, will be how far the accounting software is able to convey a sense / messages in question, or in other words the output quality of the accounting software. This variable is measured by six questions with 5 Likert scale from never to always. The higher score this variable, meaning the quality of information from existing SAP accounting software higher based on the perception of the user.

4. Quality of Service (SVQ)

Quality of service (service) in question in this research is the user's perception will be services provided by the accounting software developer SAP. This variable was measured with three questions with five Likert scale that rangesfrom strongly disagree to strongly agree. The higher score of this variable denotes the quality of service of existing SAP accounting software is higher based on user perception.

5. Use of the System (SU)

Use of the system in question in this research is the use of SAP accounting software by end users on consciousness and his own desires. This variable was measured with 3 questions with five Likert scale from not at all to always, as well as from highly doubt until very confident. The higher the score of these variables means that the frequency of the use of accounting software by end users is increasing.

6. End User Satisfaction (EUS)

The intended end-user satisfaction in this study is the result of user feedback on SAP accounting software SAP accounting software and output. This variable was measured with three questions with five Likert scale from very ineffective / inefficient until very effective / efficient, as well as from very dissatisfied to very satisfied. The higher score this variable, meaning SAP accounting software more successfully meet the needs of its users.

7. Impact of Individual (IE)

Individual impacts are referred to in this research is the impact of SAP accounting software on behavior and performance penggunanya. This variable was measured by two questions with five Likert scale from strongly disagree to strongly agree. The higher the score of these variables, means the existence of SAP accounting software further support the performance of its users.

4.3.2. Observed Variables

Observed variables also called manifest variables (Ghazali, 2005). Observed variables are variables that can be observed or measured empirically which is also often referred to as

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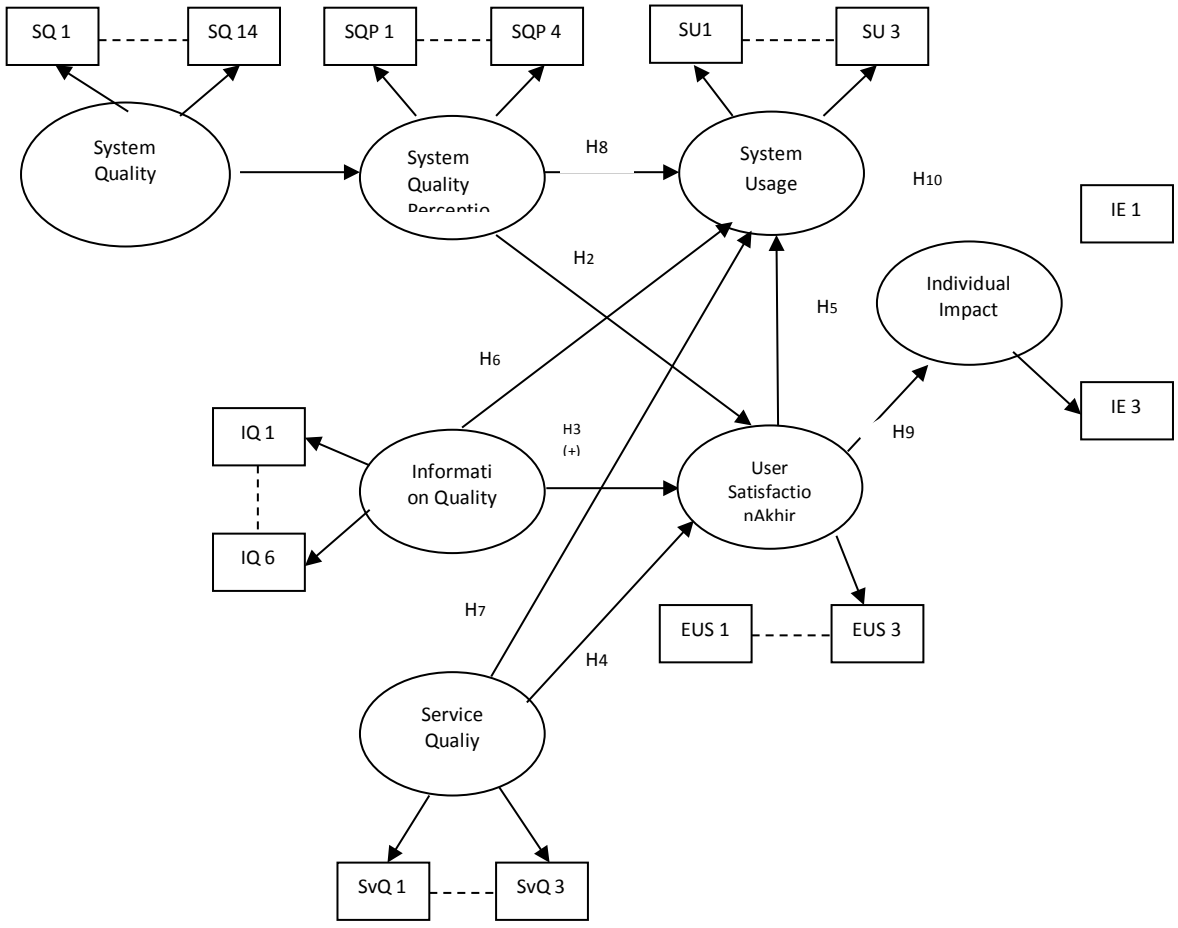
indicator (Wijanto, 2006). The observed variable is the effect or the size of the latent variables.

Observed variables referred to in this study consisted of 36 initial variables that constitute the existing items in the questionnaire. Latent variable quality of the system in this study consisted of fourteen variables observed. Observed variables in the path diagram is abbreviated SQ, from SQ1 to SQ14. Latent variable perception of the quality system consists of four variables observed. Observed variables in the path diagram is abbreviated SQP, of SQP1 until SQP4. Latent variable quality of information consists of six variables observed. Observed variables in the path diagram is abbreviated IQ, of IQ1 until IQ6. Latent variable service quality consists of three variables observed. In the diagram the path is shortened SVQ observable variables, from SvQ1 until SvQ3. Latent variable use of the system consists of three variables observed. In the diagram the path is shortened SU observable variables, namely SU1 and SU3. Latent variable end-user satisfaction consists of three variables observed. Observed variables in the path diagram is abbreviated EUS, of EUS1 until EUS3. The impact of individual latent variables consists of three variables observed. Observed variables in the path diagram is abbreviated IE, IE1 and IE3.

Research model and variables operasionalization described in Figure 3.1 below

Gambar 4.1
Reserach Model



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4.4. Data Analysis Method

The data came from questionnaires completed and returned by the respondent, and is eligible for further processing, will be processed by using Structural Equation Model (SEM). To perform the test against the model in this study, software Linear Structural Relationship (LISREL) 8.8 will be used. The process of analyzing the data and models done by testing the overall model, test the suitability of measurement models and test the structural model fit.

5. RESULT

5.1. Research Data Analysis

This study uses a CB-SEM method to estimate the structural model based on a solid theoretical basis to test the causality between the constructs and measure the feasibility of the model and confirm the corresponding empirical data collected (Latan, 2013: 11)

5.2. Normality Test

The use of CB-SEM with LISREL using Maximum Likelihood (ML) estimation requires univariate normally distributed data. Normality test performed was univariate normality test, where multiple variables were analyzed simultaneously in the final analysis. The test results are presented in the following table:

Tabel 5.5 *Test of Univariate Normality for Continuous Variables*

Skewness			Kurtosis		Skewness and Kurtosis	
Variable	Z-Score	P-Value	Z-Score	P-Value	Chi-Square	P-Value
SQ01	-3.910	0.000	-2.113	0.035	19.754	0.000
SQ02	-2.307	0.021	-2.184	0.029	10.092	0.061
SQ03	-2.347	0.019	-2.523	0.012	11.873	0.093
SQ04	-1.161	0.246	-1.124	0.261	2.611	0.271
SQ05	-1.867	0.062	-1.730	0.084	6.477	0.079
SQ06	-3.526	0.000	-2.689	0.007	19.659	0.000
SQP01	-1.031	0.303	-3.143	0.002	10.940	0.004
SQP02	-1.120	0.263	0.889	0.374	2.046	0.360
SQP03	-0.606	0.545	-0.608	0.543	0.737	0.692
SQP04	1.234	0.217	-3.948	0.000	17.111	0.000
IQ01	-1.144	0.253	0.712	0.477	1.815	0.404
IQ02	-1.358	0.174	1.140	0.254	3.143	0.208
IQ03	-1.095	0.273	-0.156	0.876	1.224	0.542
IQ04	-1.121	0.262	0.541	0.588	1.549	0.461
IQ05	-1.220	0.222	0.849	0.396	2.210	0.331
IQ06	0.047	0.963	-1.990	0.047	3.964	0.138
SVQ01	-1.237	0.216	-0.393	0.694	1.684	0.431
SVQ02	-1.137	0.255	-0.792	0.429	1.921	0.383
SVQ03	-1.201	0.230	0.228	0.820	1.494	0.474
EUS01	1.605	0.108	1.888	0.059	6.141	0.056
EUS02	0.514	0.608	0.330	0.741	0.373	0.830
EUS03	-0.489	0.625	0.287	0.774	0.321	0.852
SU01	-1.380	0.168	1.349	0.177	3.724	0.155
SU02	-1.223	0.221	0.974	0.330	2.445	0.295
SU03	-1.361	0.174	1.044	0.297	2.941	0.230
IE01	-0.846	0.398	0.745	0.456	1.270	0.530
IE02	-0.210	0.833	0.289	0.772	0.128	0.938
IE03	-0.842	0.400	0.568	0.570	1.031	0.597

Sumber: Research Data Analysis using Lisrel (2016)

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Results of the normality test based on the output table above show that the ***data has been normally univariate distributed where the value of P-Value for skewness and Curtosis indicator almost entirely has a value greater than 0.05.***

5.3 Realibility and Validity Test

The testing of dimensionality of a construct was performed with confirmatory factor analysis. In general, before making structural model analysis, it is required to do the measurement model to test the validity and reliability of indicators forming the latent constructs by performing Confimatory Factor Analysis (Latan, 2013: 74). In this study the conceptual construct is in unidimensional form, thus the testing of construct validity was conducted with First Order Confirmatory Factor Analysis. Analysis of measurements using CFA aims to model the relationship between the latent variables with observable variables, and then to confirm whether the observed variables are indeed a reflection of the size or the right of the latent variables. This study used confirmatory analysis model with three exogenous latent variables, which is: System Quality; Information Quality; and Service Quality. While the endogenous latent variables, which is: System Quality Perception; System Use; End-User Satisfcation; and Individual Impact. The process of testing the validity and reliability of data for each variable was done through Confirmatory Factor Analyisis.

Structural Model

The result of structural model is shown as Figue 8 as follows :

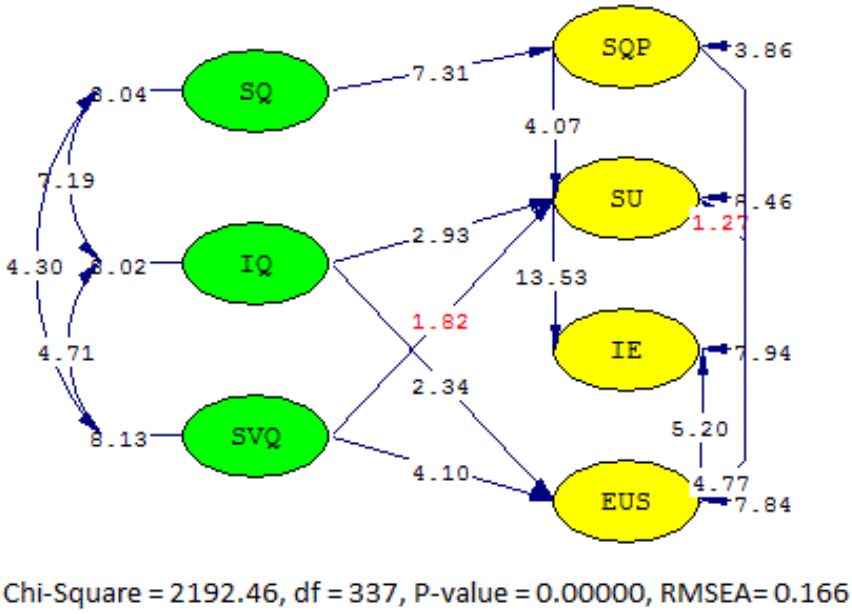

Figure 8 Path full Model Diagram

Path diagram formed above explains whether the variables studied have met the standards of goodness of fit. The results then compared to the goodness of fit index table to determine whether the proposed model fit to the data, while the results are presented in Table 8 below:

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Table 8 Goodness-of-Fit test Result

Fit Measure	Good Fit	Acceptable Fit	Score Research	Result
X^2	$0 \leq x^2 \leq 2df$	$2df \leq x^2 \leq 3df$	2283.44	**Not Fit**
P value	.05<p≤1.00	P ≤.05	0,000	**Good Fit**
RMSEA	0≤RMSEA≤.05	.05≤RMSEA≤.08	0,166	**Not Fit**
NFI	.95≤NFI≤.1.00	.90≤NFI≤..95	0,93	**Acceptable Fit**
NNFI	.97≤NNFI≤.1.00	.95≤NNFI≤..97	0,97	**Good Fit**
CFI	.97≤CFI≤.1.00	.95≤CFI≤..97	0,98	**Good Fit**
GFI	-95≤GFI≤.1.00	-90≤GFI≤..95	0,91	**Acceptable Fit**
AGFI	-90≤AGFI≤.1.00	-85≤AGFI≤..90	0,87	**Acceptable Fit**

Data goodness of fit statistics above shows that NFI, NNFI, CFI, GFI> 0.90 and P-Value 0:05 means the overall model fit is good (good fit). While AGFI and where GFI GFI is at 0.80, 0.90 AGFI showed acceptable fit. Based **on the combination of various sizes that match, generally it could be concluded that the overall suitability of the model in this study is good.**

The test results from above shows that all testing criteria showed good results. Testing models generated good confirmation on the dimensions of factors and causality between factors, so that it can be concluded overall that the model can be accepted.

Matching the overall model cannot be performed directly, but instead we use the size of the degree of suitability or goodness of fit (GOF). If the indicators that assess the fit model generate a value that meets the standard Cut-off-value, it could be said that the indicator is good fit.

Hypothesis Test

The research model above shows that the value produced has met all the required standards. After seeing the match the combination of various sizes, it could be concluded that the overall suitability of the model in representing the data and can be received (good fit), thus it can be further analyzed. Once the model is declared fit to the data and further testing the hypothesis, the hypothesis testing results can be seen in Figure 9 below:

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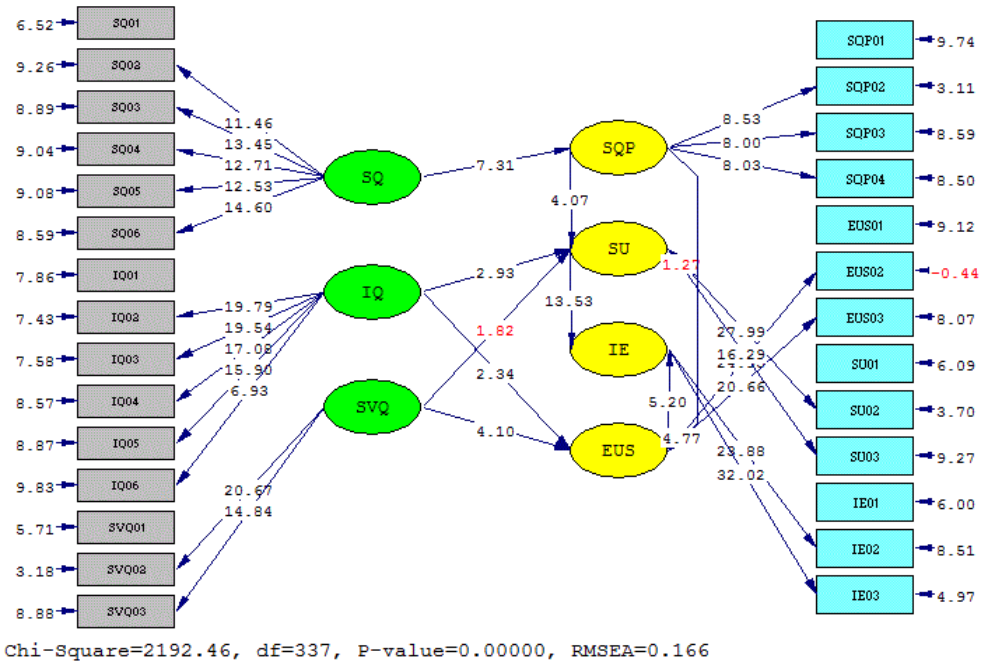

Figure 9 Diagram of t-value Model

In the model of Figure 9 above acquired coefficient value constructs, loading factor and t-value has been qualified. T-test result shows that the value of the resulting construct has met the required value at which the significance test can be said to be significant if the t-count larger than t-table. **T-value tables used in this study was 1.96 confidence level (significance) of 95%**. To see the magnitude of the effect seen among the latent variables of standard solution the resulting model. In this study we estimate the amount of influence among the variables as presented in Figure 10 below:

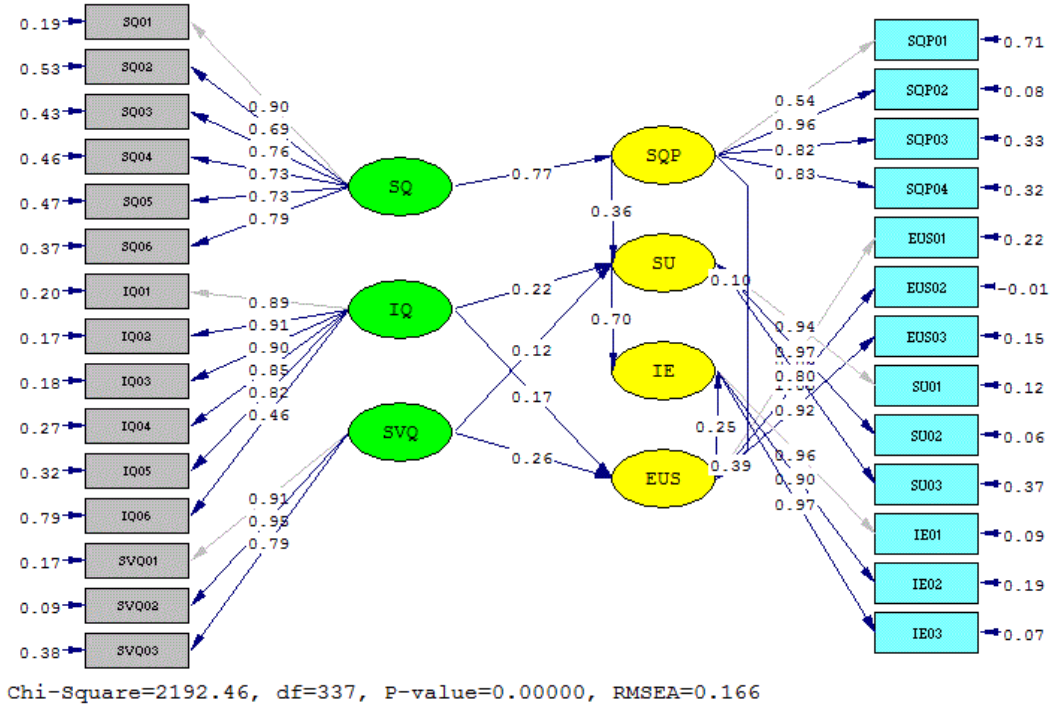

Figure 10 Diagram of Standardized Solution Model

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The result of hypotheses test is shown in Table 9 as follows:

Table 9 Hypotheses Test Results

No	Path	Magnitude	t value	Conclusion
1	SQ → SQP	0,77	7,31	Accepted
2	IQ → SU	0,22	2,93	Accepted
3	IQ → EUS	0,17	2,34	Accepted
4	**SVQ → SU**	**0,12**	**1,82**	**Rejected**
5	SVQ → EUS	0,26	4,10	Accepted
6	SQP → SU	0,36	4,07	Accepted
7	**SQP → EUS**	**0,10**	**1,27**	**Rejected**
8	SU → IE	0,70	13,53	Accepted
9	EUS → IE	0,25	5,20	Accepted

Source: Data Analysis

Statistics Test Discussion

Based on the statistic test result above, it can be concluded the following observation:

1) **System Quality (SQ) affects System Quality Perception (SQP)**
The test results in Table 9 above shows the t-value of 7.31 is larger than t-table value is 1.96, so the hypothesis 0 is rejected and the hypothesis 1 is accepted. The value of the loading factor of 0.77 shows the influence of the System Quality System Quality Perception is very large, namely 77%.

2) **Information Quality (IQ) affects System Use (SU)**
The test results at 9 above shows the t-value of 2.93 is greater than t-table value is 1.96, so the hypothesis 0 is rejected and the hypothesis 2 accepted. The value of the loading factor of 0:22 shows the influence of the Quality Information System Use by 22%.

3) **Information Quality (IQ) affects the End User Satisfaction (EUS).**
The test results in Table 9 above shows the t-value of 2.34 is larger than t-table value is 1.96, so the null hypothesis is rejected and the third hypothesis is accepted. The value of the loading factor of 0:17 shows the influence of Information Quality of the End User Satisfaction by 17%.

4) **Service Quality (SVQ) affect System Use (SU).**
The test results in Table 9 above shows the t-value of - 1.82 is smaller than t-table value is 1.96, so the null hypothesis is accepted and hypothesis 4 is rejected. The value of the loading factor of 0:12 shows the influence of the Service Quality System Use only amounted to 12%.

5) **Service Quality (SVQ) Affect End User Satisfaction (EUS)**
The test results in Table 9 above shows the t-value of 4.10 is larger than t-table value is 1.96, so the hypothesis 0 is rejected and the hypothesis 5 is accepted. The value of the

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loading factor of 0:26 shows the influence of the Service Quality of the End User Satisfaction by 26%.

6) **System Quality Perception (SQP) Affects System Use (SU)**
The test results in Table 9 above shows the t-value of 4.07 is larger than t-table value is 1.96, so the hypothesis 0 is rejected and the hypothesis 6 is accepted. The value of the loading factor of 0:36 shows the influence of the Service Quality Perception System Use by 36%.

7) **System Quality Perception (SQP) affects the End User Satisfaction (EUS).**
The test results in Table 9 above shows the t-value of - 1.27 is smaller than t-table value is 1.96, so the hypothesis 0 is accepted and hypothesis 7 is rejected. The value of the loading factor of 0:10 shows the influence of System Quality Perception of the End User Satisfaction only by 10%.

8) **System Use (SU) Affect Individual Impact (EI)**
The test results in Table 9 above shows the t-value of 13.53 is greater than t-table value is 1.96, so the hypothesis 0 is rejected and hypothesis 8 is accepted. The value of the loading factor of 0.70 shows the influence of the Individual Impact System Use by 70%.

9) **End User Satisfaction (EUS) Affect Individual Impact (EI)**
The test results in Table 9 above shows the t-value of 5.20 is larger than t-table value is 1.96, so the null hypothesis is rejected and the hypothesis 9 is accepted. The value of the loading factor of 0:25 shows the influence of the Individual Impact System Use by 25%.

6. CONCLUSION

This study attempts to enhance the DeLone and McLean IS Success model that was initially established in 1992 and refined further in their 2003 paper to measure interdependent nature of IS adoption on SAP ERP Accounting implementation projects located Indonesia. Nine predictions that portrays how three quality characteristics of system – namely system quality, information quality and service quality – interconnect with other multidimensional variables were conducted. We in particular measured the eventual individual impact of the SAP Accounting package usage from the viewpoint of end-user who use them. Seven of the nine hypotheses were proved to be significant with two hypotheses did not show significant association, that is between service quality and system usage, and between system quality perception and end user satisfaction.

As much as the recent study mostly verifies D&M IS Success Model, this study is subject to some limitations. First, this study used fairly small sample base, although it was statistically enough to obtain for representative data. Second, we did not stratify the level of users such that their responses would make more specific feedbacks on the SAP Accounting package. However, since the main objective is the general portrayal of end-users perception, we do not seet the limitation to be of high concern. This study also welcomes future research endeavor that could utilize the study's result by expanding the sample base, by substituting the research objects (e.g. SAP Controlling, Oracle Finance suits, Microsoft Axapta, etc), or by focusing more on specific variables.

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REFERENCES

[1] Adams, D.A., Nelson, R.R., and Todd, Peter, A., 1992, *"Perceived Usefulness, Ease of Use, and Usage of Information Technology A Replication"* MIS Quarterly, June.

[2] Almutairi, H., dan Subramanian, GH. (2005). *An Empirical Application of the DeLone and McLean Model in the Kuwaiti Private Sector*. Journal of Computer Information Systems, 45(3), 113-122.

[3] Baroudi, JJ., Olson, MH., dan Ives, B. (1986). *An Empirical Study of the Impact of User Involvement on System Usage and Information Satisfaction.* Communications of the ACM, 29, 232-238.

[4] Bokhari, RH. (2005). *The Relationship Between System Usage and Kepuasan Pengguna Akhir: A Meta Analisys.* Journal of Enterprise Information Management, 18, 221

[5] Bradley, RV., Pridmore, JL., dan Byrd, TA. (2006). *Information System Success in the Context of Different Corporate Cultural Types: An Empirical Investigation.* Journal of MIS, 23(2), 267-294.

[6] Cheung, CMK., dan Lee, MKO. (2005). *The Asymetric Effect of Website Attribute Performance on Satisfaction: An Empirical Study*. Proceeding of the Thirtyeight Hawaii International Conference on System Science, Big Island, Hawaii January 7th - 6th 2005.

[7] Clay, PF., Dennis, AR., dan Ko, DG. (2005). *Factors Affecting the Loyal Use of Knowledge Management Systems*. Proceeding of the Thirtyeight Hawaii International Conference on System Science, Big Island, Hawaii January 7th - 6th 2005.

[8] Clemente, Caesar jude. (2015). *Development of an Information Technology Management Model for Madinat Zayed and Ruwais Colleges in Abu Dhabi, United Arab Emirates.* Review of Integrative Business and Economics Research, 4(1), 184-202.

[9] DeLone, WH., dan McLean, ER. (1992). *Information Systems Success: The Quest for the Dependent Variable*. Information System Research, 3(1), 60-95.

[10] Doll, WJ., dan Torkzadeh, G. (1988). *The Measurement of End-User Computing Satisfaction*. MIS Quarterly, 12(2), 259-274.

[11] Edberg, DT., dan Bowman, BJ. (1996). *User-Developed Applications: An Empirical Study of Application Quality and Developer Productivity*. Journal of MIS, 13(1), 167-185.

[12] Etezadi-Amoli, J., dan Farhoomand, AF. (1996). *A Structural Model of End User Computing Satisfaction and User Performance*. Information and Management, 30, 65-73.

[13] Fraser, SG., dan Salter, G. (1995). *A Motivational View of Information Systems Success: A Reinterpretation of DeLone and McLean's Model*. Proceedings of the Sixth Australasian Conference on Information Systems, 1, 119-140.

[14] Ferdinand, Augusty. (2002). *Structural Equation Modeling dalam Penelitian Manajemen: Aplikasi Model Rumit dalam Penelitian untuk Tesis Magister& Disertasi Doktor*. BP UNDIP.

[15] Gatian, AW. (1994*). Is User Satisfaction a Valid Measure of System Effectiveness?* Information and Management, 26, 119-131.

[16] Gelderman, M. (1998). *The Relation Between user Satisfaction, Usage of Information Systems and Performance*. Information and Management, 34, 11-18.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

[17] Ghozali, I. (2005) a). *Software Analisis Multivariate dengan Program SPSS. Edisi Ketiga*. Semarang: Badan Penerbit Universitas Diponegoro.
[18] Ghozali, I. (2008). *Model Persamaan Struktural Konsep dan Software dengan Program AMOS 16.0. Edisi Ketiga.* Semarang: Badan Penerbit Universitas Diponegoro.
[19] _____, Fuad. (2005) b). *Structural Equation Modeling.* Semarang: Badan Penerbit Universitas Diponegoro.
[20] Hansen, DR., dan Mowen, MM. (2007). *Managerial Accounting. 8th Edition*. Ohio: Thompson South-western
[21] Igbaria, M., dan Tan, M. (1997). *The Consequences of Information Technology Acceptance on Subsequent Individual Performance.* Amsterdam: Elsevier Science Publisher.

[22] Istianingsih, dan Wijanto, Setyo H. (2008). *Analisis Keberhasilan Penggunaan Perangkat Lunak Akuntansi Ditinjau Dari Persepsi Pemakai (Studi Implementasi Model Keberhasilan Sistem Informasi).* Jurnal Akuntansi dan Keuangan Indonesia, 5(1), 50-76.
[23] Komara, A. (2005). *Analisis Faktor-Faktor yang Mempengaruhi Kinerja Sistem Informasi Akuntansi*. SNA VIII Solo, 15 - 16 September 2005.
[24] Kulkarni, UR., Ravindran, S., dan Freeze, R. (2006). *A Knowledge management Science Success Model: Theoretical Development and Empirical Validation.* Journal of MIS, 23(3), 309-347.
[25] Livari, J. (2005). *An Empirical Test of the DeLone-McLean Model of Information Systems Success.* The Database for Advances in Information Systems, 26(2), 8-27.
[26] Mao, E., dan Ambrose, P. (2004). *A Theoretical and Empirical Validation of IS Success Models in a temporal and Quasi Volitional Technology Use Context.* Proceedings of the Tenth Americas Conference on Information Systems, New York City, NY, August 5th - 8th 2004.
[27] McGill, T., Hobbs, V., dan Klobas, J. (2003). *Users Developed Application and Information System Success: A Test of Delone and McLean's Model*. Information Resource Management Journal, 16 (1), 24 – 45.
[28] Rama, DV., Jones, FL. (2006). *Accounting Information Systems. 1st Edition.* Canada: Thomson-South-Western.
[29] Robbins, SP., dan Judge, TA. (2007). *Organizational Behavior. 12th Edition*. New Jersey: Pearson Education, Inc.
[30] Romney, M., dan Steinbart, P. (2006). *Accounting Information Systems. 10th Edition.* New Jersey: Pearson Prentice Hall.
[31] Seddon.P.B. 1997,"*A Respecification and Extension of The DeLone and McLean's Model* of IS Success", Information System Research.8.September. 240-250
[32] Seddon, Peter B., Staples, S., Patnayakuni, R., dan Bowtell, M. (1999). *Dimensions of Information Systems Success*. Communications of the Association for Information Systems, 2(20), 1-61.
[33] Sekaran, U., (2003). "*Research Methods for Business : A Skill-Building Approach"* (Fourth Edition). John Willey & Sons, Inc.

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)