The Accountant Satisfaction in Using ERP Systems

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Abstract—Although studies of the benefits of Enterprise Resource Planning (ERP) have been done before, the analysis of accountant satisfaction models in using ERP systems has not been explored specifically from the perceptions of accounting benefits, operational benefits, individual productivity, and managerial benefits. There has been significant growth in the use of ERP systems in Indonesia. Therefore, this study proposes a model of the accountant satisfaction in using the ERP systems. The population of this study is the accountants working in Jakarta. The data are collected from ERP users in several companies in Jakarta by using a questionnaire with snowball sampling method. As much as 282 respondents return the questionnaire. The analysis of the proposed model is done by Partial Least Square (PLS). The results of the analysis provide support to the proposed model that accounting benefits, operational benefits, individual productivity, and managerial benefits are indicators that measure user satisfaction of ERP systems. The expected theoretical contribution of the results of this study is to provide insight into the system user satisfaction model, apart from the practical contribution for ERP provider companies for paying attention to the factors affecting ERP user satisfaction.

Index Terms—Enterprise Resource Planning (ERP), ERP benefits, End User Satisfaction

I. INTRODUCTION

As information and technology develop, the growth of the use of software applications and Enterprise Resource Planning (ERP) systems in Indonesia has also increased. As reported by Ref. [1] that the consumption of ERP software and products had increased from Rp3 200 billion for software and Rp960 billion for ERP software in 2013 to Rp3 500 billion for software and Rp969.12 billion for ERP software in 2014. In addition, the growth of ERP spending by Indonesian companies is also seen from the results of an analysis conducted by Ref. [2]. The highest expenditure is on the budget for ERP systems other than data management master, and CRM. It is predicted that by 2019 Indonesian ERP consumption will reach US$3.86 billion [3].

The largest contribution to the growth rate of software consumption is derived from ERP products that are made by the majority of medium-sized companies. This means that many companies in Indonesia are willing to spend a lot of money to invest in ERP products. This is quite surprising because the cost of ERP implementation is very expensive. This will make it difficult for medium-sized companies to face obstacles in funding. Moreover, medium-sized companies should be careful in making IT investments [4]. However, the phenomenon can be explained based on previous research results. It reveals that the use of the ERP systems provided many benefits for the corporate users such as helping companies to improve their supply chain management [5], improving productivity and speeding up the company’s operational work processes [6], improving operational efficiency and effectiveness as business process supervision becomes integrated [7], and standardising business processes to facilitate managerial activities [8]. In addition, other research indicates that ERP systems implementation improves the operational cost efficiency of the company [9] and the quality of business decisions due to business model integration [10].

From the growth of ERP users in Indonesia, it is interesting to get empirical evidence of accountant satisfaction in using the ERP system. This is because accountants in their daily tasks will interact with the system so that they will feel the benefits from the use of ERP systems directly. Moreover, ERP system has changed the way the businesses do the collection, processing, and distribution of data, so the accounting process changes automatically. In addition, based on a review of some previous research results, it reveals the results of a survey regarding the benefits perceived in the field of an accounting [11, 12]. Although it has been mentioned, the previous research has found empirical evidence about benefits perceived
by users [5, 6, 9, 13–15]. However, the model of the accountant satisfaction related to each benefit has not been mentioned.

The underlying motivation of companies adopting ERP systems is that they will gain many benefits. The results of previous studies on the use of ERP by companies are done differently. However, it can be concluded that the use of ERP has benefited its users. The results presented by previous studies indicated that the potential benefits by the use of ERP could be grouped into operational, managerial, strategic, IT infrastructure, and organizational benefits [16]. In addition, other studies revealed that ERP also provided benefits to accounting activities [11, 12], individual productivity, and organizational productivity [17]. The results of other empirical studies showed that the use of ERP could improve the efficiency of cycle and time of production and the increase in the number of production per month [6]. ERP also generated cost efficiency [9, 13].

For large companies, ERP helps to smoothen and integrate business process activities [14]. The same thing also happens under the supervision of the flow of goods or distribution [5, 15]. The benefits of ERP in accounting activities are the ease of preparing financial statements, obtaining updated, and completing the information, so it is easier for decision-making [11]. Another benefit of accounting activities is the efficiency of employee time and expense [12].

In addition to benefits issues, previous studies also address other important issues in the use of the system. It can be user satisfaction based on the IS Success Model. User satisfaction is measured by the perception of ease of use and design of the system [18]. The ease of use and quality of information generated by the system is believed to be the factor that determines the level of user satisfaction of the system [19]. It is further emphasized that user awareness about the benefits by using the new system also contributes to user satisfaction [20].

Based on the results of the previous studies [11, 12], it attempts to formulate a model of the accountant satisfaction in using ERP systems. Although the previous study on accounting benefits and user satisfaction has been done by Ref. [12], this study emphasizes more on the perspective of accountant functions in daily business processes. Hence, the instrument used is a combination of survey results of Refs. [11, 12, 21, 22].

Besides, this study expands the previous study by examining the ERP user satisfaction model especially by differentiating it into several benefit groups such as accounting benefits, operational benefits, individual productivity, and managerial benefits in the perspective of accountancy. The results of this study are expected to provide practical and theoretical contributions to the study and practice of ERP particularly in studying the benefits to accountants and the accountant’s satisfaction model in using ERP systems.

This study aims to analyze the perceptions of accountants about the benefits of using ERP. It is divided into several benefits such as accounting, operational, individual, and managerial. In addition, the dimension used can predict the ERP user satisfaction model. Thus, the research question can be formulated as follows:

1) What are the benefits perceived by the accountant in using the ERP system?
2) What are the factors that influence the accountant’s satisfaction model in using the ERP system?

II. LITERATURE REVIEW

The study uses an end-user satisfaction model for the ERP environment adopted from Ref. [21]. The theory underlying the satisfaction model is the IS Success Model by Delone and McLean. Based on that user satisfaction theory, it is measured through the perception of ease of use and the design of the system [18]. The ease of use and quality of information generated by the system is believed to be a factor that determines the level of user satisfaction of the system [19]. In addition, user awareness about the benefits by using the new system also contributes to the user satisfaction [20].

From the diversity of ERP users, this study specializes in users by accountants for daily purposes. Previous surveys have shown that ERP provides potential benefits specifically for accounting activities [11, 12]. Moreover, the previous ERP-related literature concludes that the benefits from the use of ERP can be grouped into operational, managerial, strategic, IT infrastructure, and organizational benefits [16]. Other studies have also shown that ERP deals with individual productivity, organizational productivity, and managerial activities [5, 6, 9, 14, 15, 17].

Thus the model of this study can be formulated in Fig. 1. Then, the hypotheses are as follows:

H1: There is a relationship between perception of accounting benefits and accountant satisfaction.
H2: There is a relationship between perception of operational benefits and accountant satisfaction.
H3: There is a relationship between perception of individual benefits and accountant satisfaction.
H4: There is a relationship between perception of managerial benefits and accountant satisfaction.
II. LITERATURE REVIEW

The study uses an end-user satisfaction model for the ERP environment adopted from Somers, 2014. The operations of each variable are presented in Table I. Moreover, the measurements of all variables are by using 5-point Likert scale from 1 for “strongly disagree” until 5 for “strongly agree.” The high score shows respondents perceive high value and vice-versa.

Data analysis uses descriptive analysis method and structural equation model with the Partial Least Square (PLS). The results of data analysis is grouped into two parts, namely descriptive analysis and research model testing of the accountants satisfaction in using ERP systems.

IV. RESULTS AND DISCUSSION

A. Descriptive Analysis

The survey uses a questionnaire distributed with snowball sampling to accountants working in Jakarta. The final result has about 282 questionnaires. All respondents have an accounting background working with ERP system in 43 companies in Jakarta. Thirty-two percents of respondents occupy manager position...
and the remaining is staff. The demographics of the respondents are in Table II.

The majority of companies are SAP users. In general, the use of ERP has started before 2010 (71%). Then, financial accounting module is a module used by almost all respondents (83%), while other modules such as management accounting, production, and e-commerce are used by the remaining 43% of respondents. It can be seen in Table III.

The results of the analysis show that the motivation to implement the ERP is to integrate the applications. Then, it is followed by the increased activity in the business process as seen in Table IV.

The following are the results of the analysis for each latent variable, accounting benefits, operational benefits, individual productivity, and managerial benefits. As summarized in Table V, all of the variables have greater mean values than 3 in the range of 1 to 5. This shows that the respondents perceive the benefits and the user satisfaction at a moderately high score. The indicator that best describes the latent variable accounting benefits is shown in Table V. It is the completion of the daily, monthly, and annually accounting cycle.

The results of the analysis for user perceptions of operational benefits are not as high as the perception of accounting benefits. As described in Table VI, the best explanatory indicator of operational benefits variables is ERP helps the system integration.

Furthermore, the results of the analysis for user perceptions of managerial benefits are also not as high as the perception of accounting benefits or operational benefits. It is shown in Table VII. The best explanatory indicator of managerial benefits is obtained from the

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### Table II: Demographics of the Respondents

| Position   | Total | %   |
|------------|-------|-----|
| Manager    | 91    | 32.3|
| Staff      | 191   | 67.7|
| Total      | 282   | 100.0|

| Department | Total | %   |
|------------|-------|-----|
| Accounting | 222   | 78.7|
| Finance    | 35    | 12.4|
| Purchasing | 25    | 8.9 |
| Total      | 282   | 100.0|

### Table III: ERP Usage Descriptions

| Vendor     | Total | %  |
|------------|-------|----|
| AXAPTA     | 11    | 4  |
| IFS        | 10    | 4  |
| INFOSYS    | 42    | 15 |
| JD Edward  | 5     | 2  |
| MYOB       | 42    | 15 |
| Oracle     | 51    | 18 |
| SAP        | 11     | 39 |
| VHP        | 10    | 4  |
| Total      | 282   | 100|

| Go live | Total | % |
|---------|-------|---|
| < 2001  | 30    | 11 |
| 2001 – 2010 | 169 | 60 |
| > 2010 | 83    | 29 |
| Total  | 282   | 100|

| Modul | Total | % |
|-------|-------|---|
| Financial Accounting | 235 | 83 |
| Fixed Asset Register | 72 | 26 |
| Management Accounting | 120 | 43 |
| Costing | 84 | 30 |
| Production | 124 | 44 |
| Logistics | 75 | 27 |
| E-commerce | 120 | 43 |
| Purchase | 90 | 32 |
| Payroll | 81 | 29 |
| Quality Management | 60 | 21 |
| Sales Marketing | 46 | 16 |
| Other Modules | 42 | 15 |
| Total | 282 | 100|

### Table IV: Implementation Motivation

| Motivation                               | Total | %   |
|------------------------------------------|-------|-----|
| Integration of Applications              | 159   | 56 |
| Corporate information systems integration| 21    | 7  |
| Real-time Information                    | 15    | 5  |
| Enhancing business process activities    | 63    | 22 |
| Increasing Revenue                       | 12    | 4  |
| Enhancing Decision-making process        | 3     | 1  |
| Competitive Advantage                     | 9     | 3  |
| Total                                    | 282   | 100|

### Table V: Perceived Accounting Benefits (ACB)

| Code | Indicators                                      | Mean |
|------|------------------------------------------------|------|
| AB1  | Accelerate the completion of monthly accounting | 3.61 |
| AB2  | Accelerate the completion of annual accounting  | 3.68 |
| AB3  | Accelerate the process of daily transactions    | 3.67 |
| AB4  | Accelerate the process of compilation of information especially financial statements | 3.42 |
| AB5  | Improve reporting quality especially financial reporting | 3.29 |
| AB6  | Improve decision-making process                 | 3.15 |
| AB7  | Have updated and accurate information            | 3.40 |
|      | Average                                         | 3.46 |

### Table VI: Perceived Operational Benefits (OPB)

| Code | Indicators                                      | Mean |
|------|------------------------------------------------|------|
| OB1  | Have better interdepartmental coordination      | 3.23 |
| OB2  | Improve internal communication                   | 3.19 |
| OB3  | Improve system integration                       | 3.60 |
| OB4  | Reduce errors in logistics                       | 3.12 |
| OB5  | Improve financial analysis skills                | 3.48 |
| OB6  | Improve information flexibility                  | 3.48 |
| OB7  | Provide the flexibility of accessing financial information | 2.78 |
|      | Average                                         | 3.27 |
TABLE VII
PERCEIVED MANAGERIAL BENEFITS (MGB).

| Code | Indicators                    | Mean |
|------|-------------------------------|------|
| OP1  | Improve management control    | 3.30 |
| OP2  | Increase the company’s cash flow | 3.09 |
| OP3  | Increase company growth       | 3.15 |
| Average |                               | 3.18 |

TABLE VIII
PERCEIVED INDIVIDUAL BENEFITS.

| Code | Indicators                   | Mean |
|------|------------------------------|------|
| PR1  | More work completion         | 3.44 |
| PR2  | Faster task execution        | 3.70 |
| PR3  | Increasing work productivity | 3.59 |
| Average |                               | 3.57 |

TABLE IX
PERCEIVED USER SATISFACTION (SAT).

| Code | Indicators                           | Mean |
|------|--------------------------------------|------|
| ST1  | The fulfillment of the company’s needs | 3.27 |
| ST2  | User-friendly                        | 3.44 |
| ST3  | No errors or significant distractions | 3.63 |
| ST4  | Sufficient help information          | 3.63 |
| ST5  | Easy to learn in the beginning of the implementation | 3.28 |
| Average |                                   | 3.45 |

B. Accountant Satisfaction Model in Using ERP Systems

The testing of the satisfaction model is done by the PLS method. It is processed using SmartPLS M2 program. The first step is to test the validity of the data by looking at the cut off value in each loading factor in the latent variable. The criterion used is the value of each loading factor that must be above 0.6. Therefore, all indicators that are less than 0.6 is excluded from the analysis.

The results of SmartPLS output indicate that some indicators do not meet the validity criteria so that all indicators with loading factors with less than 0.6 have been excluded from the analysis. The outcome of the indicators that meet the validity criteria is AB2, AB4 and AB5 for accounting benefit variables, OB2, OB5 and OB6 for variable operational benefits, PR1–PR3 for variable managerial benefits, OP1–OP3 for individual productivity and ST1–ST5 for user satisfaction variables. Thus, the indicator in Table X can be used for further model testing.

The next step is testing the reliability of the AVE and reliability of composite value. It is summarized in Table XI. The AVE value is greater than 0.5 and the value of composite reliability is above 0.9 for all variables. It is seen from the AVE root values that are compared with the correlation values between the variables as shown in Table XII. It shows that the square root value of AVE is greater than the value of the correlation. Considering the results of validity and reliability, it can be concluded that the data can be used for model prediction.

After the validity and reliability testing, the next test is to see the strength of relationships between variables from the value of path coefficient and R square. The results of the SmartPLS output are in Table XIII. It shows that all the relationships are significant at p-value of 0.05 and the statistical t-value is greater than 1.960. Therefore, it can be concluded that the
The system will lead to user satisfaction. The IS success model, the successful implementation of the information to improve individual performance presented the quality of the ERP. ERP quality has resulted of benefits perceived by the accountant have represented the quality of the ERP. ERP quality has resulted of benefits perceived by the accountant have represented the quality of the ERP. ERP quality has resulted.

The dimensions of benefits perceived by the accountant is the individual benefit. This is in line with the results of previous studies [22]. This means that the ERP system used has helped them do the task faster because the facilities are provided for faster transaction execution. This explains that the ERP system has assisted individual accountants in performing their daily tasks so that individual productivity can be improved [22]. This means that the ERP system used has helped them do the task faster because the facilities are provided for faster transaction execution. This explains that the ERP system has assisted individual accountants in performing their daily tasks so that individual productivity can be improved.

Furthermore, the results of the model test provide empirical support to the proposed model of accountant satisfaction in using the ERP system. It is related to the perceptual component of the accounting, operational, managerial, and individual productivity benefits [22]. ERP systems have benefited the accounting work in the daily activities of information processing up to the preparation of reports. This result confirms the promise of ERP providers that the ERP application can integrate all business processes. In addition, the result confirms the previous study [6, 11] in performing accounting integration in corporate operations [14, 15].

Respondent’s perception of the satisfaction of ERP usage shows high enough value in satisfaction with system stability, conformity with company requirement, availability of adequate information, and ease of studying ERP. The results provide empirical support for Ref. [21]. It explains ERP user satisfaction that can be assessed through how ERP responds to the needs of a company, the ease of learning, and using the system.

The results of previous surveys on the accounting benefits of using ERP have inspired this study to assess the factors that make up the ERP user satisfaction. This is for accountants who are directly related to ERP systems. The results of the analysis show that all the elements of benefit are proven to be related to user satisfaction. In particular, the highest benefit perceived by the accountant is the individual benefit. This is in line with the results of previous studies [22]. This means that the ERP system used has helped them do the task faster because the facilities are provided for faster transaction execution. This explains that the ERP system has assisted individual accountants in performing their daily tasks so that individual productivity can be improved [22]. This means that the ERP system used has helped them do the task faster because the facilities are provided for faster transaction execution. This explains that the ERP system has assisted individual accountants in performing their daily tasks so that individual productivity can be improved.

Furthermore, the results of the model test provide empirical support to IS success theory. The dimensions of benefits perceived by the accountant have represented the quality of the ERP. ERP quality has resulted in the information to improve individual performance within the ERP system environment. As formulated on the IS success model, the successful implementation of the system will lead to user satisfaction.

In addition to individual benefits, accounting benefits are shown to be perceived high moderate by the accountants. The accounting benefit that becomes the highest benefit is to assist accountant in completing financial reporting activities. For example, there are the completion and preparation of daily, monthly, and yearly financial statements. Next, in operational activities, high perceived benefits are the facilities access to applications due to the availability of an integrated system. It can improve their work skills in conducting financial analysis. This feature helps individual performance in increasing productivity and performing daily tasks more quickly. The use of ERP is believed to improve the quality of the system so that there is no significant disturbance or error comes from the system. They feel they are supported by the availability of adequate assistance.

The results of this study provide empirical support for previous surveys of accounting benefits of ERP implementation in accounting activities [11, 12]. Furthermore, the results of the analysis support the proposed model of accountant satisfaction in using the ERP system. It is related to the perceptual component of the accounting, operational, managerial, and individual productivity benefits [22]. ERP systems have benefited the accounting work in the daily activities of information processing up to the preparation of reports. This result confirms the promise of ERP providers that the ERP application can integrate all business processes. In addition, the result confirms the previous study [6, 11] in performing accounting integration in corporate operations [14, 15].

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TABLE XII
THE CORRELATION OF VARIABLE AND THE SQUARE ROOT OF AVE.

|     | ACB   | IPR   | MGB   | OPB   | SAT   |
|-----|-------|-------|-------|-------|-------|
| ACB | 0.882 |       |       |       |       |
| IPR | 0.501 | 0.803 |       |       |       |
| MGB | 0.451 | 0.382 | 0.833 |       |       |
| OPB | 0.635 | 0.202 | 0.537 | 0.881 |       |
| SAT | 0.604 | 0.372 | 0.509 | 0.602 | 0.779 |

TABLE XIII
THE PATH COEFFICIENTS.

| Variable | Original Sample | t-Statistics |
|----------|-----------------|--------------|
| ACB      | 0.2737          | 40.331       |
| IPR      | 0.1035          | 20.322       |
| MGB      | 0.1798          | 33.759       |
| OPB      | 0.3105          | 50.679       |

Fig. 2. Accountant satisfaction of ERP systems.
The results of this study are also in accordance with research conducted by Ref. [18] that user satisfaction is determined by how easy the system and the design of the system used is.

Based on the results of user satisfaction analysis of the ERP system, it can be concluded that the average respondents feel the benefits of ERP and get the ERP system. It has met the needs of the company. This is in accordance with Ref. [20] who states that user satisfaction will be influenced by the function of ERP for the company to support the corporate goals.

V. CONCLUSION

The results of this study provide an overview of the benefits of using ERP in the company. The highest perceived benefits of respondents are the ability of ERP to integrate accounting applications and information delivery process for the users of the report. Moreover, there is also efficiency in the process of transaction processing and accounting settlement for daily, monthly, or yearly activities. Then, the effectiveness is derived from the indicators to speed up the process of preparing reports. It provides information and productivity support in decision-making work.

The results of this study contribute theoretically to ERP research and practically to ERP system users regarding increasing user satisfaction. The empirical contribution in the use of various benefits dimensions can predict the user satisfaction of the ERP system. The dimensions have been proven by many IS success model studies. In practical terms, it gives insight for ERP vendors, so they can provide important features for users to support their daily tasks.

However, this study has limitations on results that cannot be generalized to the entire company. It is because the survey is only conducted on users in 43 companies in Jakarta and by snowball sampling. In addition, this study only reveals the benefits that are associated with accounting, operational, and managerial benefits perceived by accountants. It has limited assessment of business processes. Moreover, future research can be done by entering the variable on business process activities more broadly in addition to accounting activities. It can obtain the model of satisfaction in the use of a more comprehensive ERP system for the company in conducting business processes.

REFERENCES

[1] G. Gunawan, Gun. (2014) Enterprise it solution in Indonesia (EIBN). [Online]. Available: www.eibn.org/upload/Enterprise_IT_Solution_in_Indonesia.pdf

[2] Y. Dharmasthira and E. Gadjuli. (2013) Emerging market analysis: Indonesia, a growing application software market, 2013-2014. [Online]. Available: https://www.gartner.com/doc/2412015/emerging-market-analysis-indonesia-growing

[3] S. Agusta. (2015) Frost and sullivan: Enterprise services market in Indonesia is expected to reach US$3.86 billion by 2019. [Online]. Available: https://ww2.frost.com/news/press-releases/frost-sullivan-enterprise-services-market-expected-reach-386b-2019-cagr-186/

[4] M. Ghobakhloo, T. S. Hong, M. S. Sabouri, and N. Zulkifli, “Strategies for successful information technology adoption in small and medium-sized enterprises,” Information, vol. 3, no. 1, pp. 36–67, 2012.

[5] S. Lenny Koh, S. Saad, and S. Arunachalam, “Competing in the 21st century supply chain through supply chain management and enterprise resource planning integration,” International Journal of Physical Distribution & Logistics Management, vol. 36, no. 6, pp. 455–465, 2006.

[6] P. Katerattanakul, S. Hong, and J. Lee, “Enterprise resource planning survey of Korean manufacturing firms,” Management Research News, vol. 29, no. 12, pp. 820–837, 2006.

[7] S. Wibisono, “Enterprise resource planning (erp) solusi sistem informasi terintegrisi,” Dinamik Jurnal Teknologi Informasi, vol. 10, no. 3, pp. 150–159, 2005.

[8] H. Jinno, H. Abe, and K. Iizuka, “Consideration of erp effectiveness: From the perspective of erp implementation policy and operational effectiveness,” Information, vol. 8, no. 1, p. 14, 2017.

[9] V. Marbert, A. Soni, and M. Venkataramanan, “An investigation into the erp in the us industrial companies,” French Industrial Management Review, vol. 19, no. 4, pp. 5–13, 2000.

[10] T. F. Gattiker and D. L. Goodhue, “What happens after erp implementation: understanding the impact of interdependence and differentiation on plant-level outcomes,” MIS Quarterly, vol. 20, no. 3, pp. 559–585, 2005.

[11] C. Spathis and S. Constantinides, “Enterprise resource planning systems impact on accounting processes,” Business Process Management Journal, vol. 10, no. 2, pp. 234–247, 2004.

[12] A. Kanellou and C. Spathis, “Accounting benefits and satisfaction in an erp environment,” International Journal of Accounting Information Systems, vol. 14, no. 3, pp. 209–234, 2013.

[13] Ö. Y. Saatçioğlu, “What determines user satisfaction in erp projects: benefits, barriers or risks?”
Journal of Enterprise Information Management, vol. 22, no. 6, pp. 690–708, 2009.

[14] J. R. Muscatello, M. H. Small, and I. J. Chen, “Implementing enterprise resource planning (ERP) systems in small and midsize manufacturing firms,” International Journal of Operations & Production Management, vol. 23, no. 8, pp. 850–871, 2003.

[15] Y. Yang, Y. V. Hui, L. C. Leung, and G. Chen, “An analytic network process approach to the selection of logistics service providers for air cargo,” Journal of the Operational Research Society, vol. 61, no. 9, pp. 1365–1376, 2010.

[16] S. Shang and P. B. Seddon, “A comprehensive framework for classifying the benefits of ERP systems,” AMCIS 2000 proceedings, p. 39, 2000.

[17] G. Gable, D. Sedera, and T. Chan, “Enterprise systems success: a measurement model,” ICIS 2003 Proceedings, p. 48, 2003.

[18] F. Calisir and F. Calisir, “The relation of interface usability characteristics, perceived usefulness, and perceived ease of use to end-user satisfaction with enterprise resource planning (ERP) systems,” Computers in Human Behavior, vol. 20, no. 4, pp. 505–515, 2004.

[19] A. S. B. Ali, F. T. Anbari, and W. H. Money, “Impact of organizational and project factors on acceptance and usage of project management software and perceived project success,” Project Management Journal, vol. 39, no. 2, pp. 5–33, 2008.

[20] E. W. Ngai, C. C. Law, and F. K. Wat, “Examining the critical success factors in the adoption of enterprise resource planning,” Computers in Industry, vol. 59, no. 6, pp. 548–564, 2008.

[21] T. M. Somers, K. Nelson, and J. Karimi, “Confirmatory factor analysis of the end-user computing satisfaction instrument: replication within an ERP domain,” Decision Sciences, vol. 34, no. 3, pp. 595–621, 2003.

[22] L. Hatzithomas, I. Stamelos, T. Fotiadis, and J. Mylonakis, “Quality and effectiveness of enterprise resource planning-customer relationship management systems: Implications for information systems marketing strategies,” Journal of Applied Business Research, vol. 23, no. 3, p. 33, 2007.