

Factors Affecting The Success Of The Application Of Enterprises Resources Planning (ERP) Base Application In Village Enterprise In Asahan Regency

Arifin Lubis, Abikusno Dharsuky, Iskandar Muda

Abstract :- This study aims at a user acceptance model that supports the duties and functions in compiling and implementing an integrated Village Unit financial reporting application menu and can be used daily by the accounting division of Village-Owned Enterprises in North Sumatra. The types of village financial reporting menus that are produced are Journal Input menu, General Ledger and Financial Reporting Processes such as Balance Sheet, Profit and Loss Statement, Cash Flow and Equity Change in Computerization. The purpose of this study was to examine the influence of Technology Resistance, Understanding, Human Resources, Funds Support and Training factors on the successful implementation of the Enterprise Resources Planning (ERP) Base Application for Rural Enterprises. This type of research is applied descriptive research in the form of applying open source-based systems and software frameworks. The study population was a Village-Owned Enterprise in the District of Asahan, North Sumatra where the sampling technique was carried out using the purposive sampling method. In addition, an assessment of people's perceptions of the implementation of a computerized village accounting system and resistance was also carried out using a questionnaire designed according to the research object. The results showed that Technology Resistance, Understanding, Human Resources, had no effect on the successful implementation of the Village ERP Base Application while the Fund and Training Support variable influenced the successful implementation of the Village ERP Base Application.

Keywords : -Village-Owned Enterprise, Technology Resistance, Funds Support.

1. INTRODUCTION

The emergence of ERP software cannot be separated from the development of increasingly advanced technology. Basically the forerunner to the ERP system first appeared in the 1960s, at which time there was an information system called Material Requirement Planning (Dos Santos and Lopes, 2019 and Liu et al., 2019). So this MRP becomes the initial stage of the formation of ERP software by offering the concept of material requirements planning. ERP has three main elements namely the company (Enterprise), resources and planning. The resources referred include human resources, capital and also company assets. Basically, ERP is an integrated system with the aim of summarizing existing processes so that it becomes an efficient and effective combination (Qu et al., 2019). In fact, there are enough sources that can be used to define ERP itself. The existence of an ERP system can also help improve efficiency and productivity in the company (Beranič and Hericko, 2019). The company's daily routine activities such as orders, freight forwarding, supplier profiles, cash management (financial management), warehouse management, sales realization to accounting can run better and faster. Not only that, the cycle

of selling to cash and supplier payment can be done more quickly. BUMDes is a village-owned business entity formed through village deliberations between the Village Government together with the Village Consultative Body (BPD), as well as village community representatives. The results of the BUMDes establishment deliberation are then set forth in the Minutes. As an effort to improve village welfare, it is necessary to establish a village-owned enterprise (BUMDES) where BUMDES functions as a social institution that can support village economic activities. In its implementation BUMDES usually runs like a business institution as in general it's just that the BUMDES processing party is the village community from the regional government. As should the other BUMDes businesses and businesses are also required to compile a bookkeeping as a form of accountability to the community and management BUMDES.

2 METHOD

This study uses primary data. The hypothesis was tested by using Structural Equation Modeling with SMART PLS software 3.0. The data analysis technique in this research employed Structural Equation Modeling (SEM).

3 RESULT AND DISCUSSION

3.1. Result

3.1.1. Convergent Validity

Table 1. The Convergence Validity

	Fund Support (X4)	Human Resources (X3)	Successful application of the Enterprise Resources Planning	Technology Resistance (X1)	Training (X5)	Understanding (X2)

- Arifin Lubis, Department of Accounting, Faculty of Economic and Business, Universitas Sumatera Utara, Medan, Indonesia.
- Corresponding Email : arifinlubis@usu.ac.id
- Abikusno Dharsuky, Department of Accounting, Faculty of Economic and Business, Universitas Sumatera Utara, Medan, Indonesia. Email : abikusno@usu.ac.id
- Iskandar Muda, Department of Accounting, Faculty of Economic and Business, Universitas Sumatera Utara, Medan, Indonesia. Email : iskandar1@usu.ac.id

			<i>g</i> (ERP Model (Y))			
FSX41	-	1.000				
FSX42	-	1.000				
FSX43	-	1.000				
HRX31		-1.000				
HRX32		-1.000				
HRX33		-1.000				
SIVER P1			-1.000			
SIVER P2			-1.000			
SIVER P3			-1.000			
SIVER P4			-1.000			
TRX11				-1.000		
TRX12				-1.000		
TRX13				-1.000		
TX51					-	1.000
TX52					-	1.000
TX53					-	1.000
UX21						-1.000
UX22						-1.000
UX23						-1.000

Source: PLS Output (2019).

The results of the convergent validity test seen through the outer loading value conclude that all questions on each indicator in each research variable are valid (Ringle et al., 2015). Thus, all of these question points can be used as question items that are indeed feasible to use.

3.1.2. Reliability Test Results

The Reliability test results are in the following Table 2:

Table 2. Reliability Test

	Cronbach's Alpha	Composite Reliability
Fund Support (X4)	0.623	0.797
Human Resources (X3)	0.624	0.706
Successful application of the Enterprise Resources Planning (ERP) Model (Y)	0.660	0.602
Technology Resistance (X1)	0.688	0.802
Training (X5)	0.688	0.633
Understanding (X2)	0.790	0.726

Source: PLS Output (2019).

Based on the results of the reliability test in Table 2, it can be seen through a table that displays the Cronbach alpha value and composite reliability. All Cronbach Alpha values and composite reliability in the reliability test results table ranged from 0.600 to 0.800 so that through this table a conclusion can be drawn that all variables in this study are reliable. The result of t-statistics value in the table path coefficients is presented in the following Figure 1 as a follows :

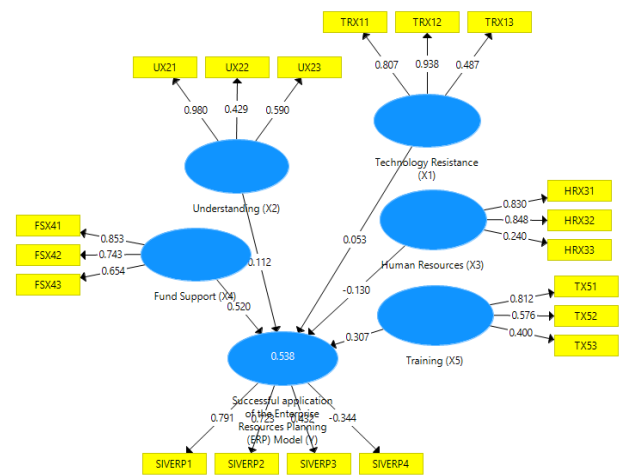


Figure 1. Overall Model with Coefficient

The statistic result of this research in the following Table 3 :

Table 3. Path Coefficients

	Original Sample	Sample Mean	Standard Deviation	t Statistics	p Values
Fund Support (X4) -> Successful application of the Enterprise Resources Planning (ERP) Model (Y)	0.520	0.527	0.108	4.801	0.000
Human Resources (X3) -> Successful application of the Enterprise Resources Planning (ERP) Model (Y)	-0.130	-0.113	0.153	0.845	0.399
Technology Resistance (X1) -> Successful application of the Enterprise Resources Planning (ERP) Model (Y)	0.053	0.080	0.140	0.376	0.707
Training (X5) -> Successful application of the Enterprise Resources Planning (ERP) Model (Y)	-0.307	-0.310	0.110	2.797	0.005
Understanding (X2) -> Successful application of the Enterprise Resources Planning (ERP) Model (Y)	0.112	0.096	0.175	0.641	0.522

Source: PLS Output (2019).

Based on the results of the hypothesis test, it can be show that Fund Support (Fund Support/X4) is an independent variable that has a positive and significant effect on the success of the application of Village Business Entity, the statistical t value is 4,801> from the t table value of 1,964 and this can be proven by the original value the sample is 0.520 and the significance is 0.000 <0.05, which means that funding support has a positive effect on the successful implementation of the Enterprise Resources Planning (ERP) Application Base. In addition, the Training variable (Training / X5) is an independent variable that has a positive and significant effect on the success of the application of Village Business Entity, the statistical t value is 2,797> of the t table value of 1,964 and this can be proven by the value The original sample is 0.307

and the significance is $0.005 = 0.05$, which means that funding support has a positive effect on the implementation of the successful application of the Enterprise Resources Planning (ERP) Base.

3.1.3. Predictive Relevance

The result of Predictive Value as a follows :

Table 4. *The Predictive Relevance*

	RMSE	MAE	Q2
Successful application of the Enterprise Resources Planning (ERP) Model (Y)	0.667	0.487	0.412

Source: PLS Output (2019).

Based on the Table 4 it can be show that there is a direct relationship between each independent variable on the dependent variable.

3.1.4. Determination Coefficient Test Results

The result of Adjusted R2 as a follows :

Table 5. *The Determination Coefficient*

	R Square	R Square Adjusted
Successful application of the Enterprise Resources Planning (ERP) Model (Y)	0.538	0.508

Source: PLS Output (2019).

Based on the test results of the coefficient of determination at Table 5 the value of R Square is 0.538 and the Adjusted R Square value is 0.508. Thus, the value of R Square illustrates that all independent variables in this study are able to represent the dependent variable.

3.2 Discussion

Based on the results of the analysis that the Technology Resistance variable does not affect the success of the application of the Village Enterprise Resources Planning (ERP) Base. The resistance factor is a habit factor carried by the operator. The higher the use of the Village Enterprise application, the lower the resistance of using the ERP application (Jarrar et al, 2000, Hong and Kim, 2002, Bhati, 2005, Bradley, 2008 and Bhattacharya et al., 2019). BUMDEs operators are generally managed by young workers. Young operators are on average literate with technology and are not resistant to using application devices. In the initial phase of the establishment of BUMDEs today that the study respondents who are not young anymore so that the resistance variable has no significant effect. The understanding intended in this study is an understanding of the running of the ERP process. The course of ERP is an implementation of the Accounting Information System cycle consisting of Revenue Cycle, Expenditure Cycle, Production Cycle, Finance Cycle and General Ledger and Reporting Systems (Hareda and Durendez, 2019 and Yavuz, 2019). This understanding is required to understand the accounting cycle. Without understanding the accounting processes and cycles, ERP cannot be implemented. But that can be covered by training. This shows that the understanding variable has no significant effect. Managing BUMDEs is the result of joint management by all elements of the village community. Village community elements consist of various layers of different and diverse

human resources. Especially from the aspect of the level of education that many affect the capacity of human resources. Based on the results of the analysis that the variable Human Resources does not affect the success of the application of the Village Enterprise Resources Planning (ERP) Base. Different factors in the strata of aspects of human resources do not play a dominant role in ERP implementation. To be able to adopt ERP system technology, a company often has to provide funds from hundreds of millions to billions of rupiah. Such funds must be provided for investment in ERP application software packages, server and desktop hardware, database and operating system software, high performance network, and consultation fees for implementation. Although hindered by large investment costs, many companies in the world and no exception in Indonesia are competing to adopt this information system. This is because ERP software application packages that are well implemented will produce a "return" on a worthy and fast investment. Because the ERP system handles all activities in the organization, bringing a new work culture and integration within the organization. taking over routine tasks from personnel from the operator level to the functional manager, thus providing an opportunity for the company's human resources to concentrate on handling critical issues and long-term impacts. ERP systems also have a significant cost-saving impact with ongoing integration and monitoring of organizational performance. Implicitly the ERP application is not just software, but is a solution to the information problems in the organization. Enterprise Resource Planning (ERP) can be defined as a computer-based information system application designed to process and manipulate a transaction within an organization and provide real-time, integrated planning, production and customer service facilities. ERP application is an integrated system, so that the ERP application is able to provide its user organization with a transaction processing model that is integrated with activities in other business units in the organization. By implementing the company's standard business processes and a single database that covers all activities and locations within the company, ERP is able to provide integration between those activities and locations. As a result, ERP systems can lead to better decisionmaking capabilities with quantifiable parameters. So that the resulting decision can mutually support the operational processes of the company or organization.

4 CONCLUSIONS

The results of the study concluded that the variable Technology Resistance, Understanding, Human Resources, had no effect on the success of the application of the Village Enterprise Village Fund variable while the Fund and Training Support variable influenced the successful implementation of the Enterprise Resource Planning (ERP) Base Application Village. Subsequent studies are suggested examining the extent of the intensity of the training variable. The training module also needs to be observed to see the suitability of the module provided with the practices applied to BUMDEs. In addition, it is also necessary to examine the form of financial support as the main requirement for the application of BUMDEs, whether it requires village involvement in the form of paid-in capital in BUMDEs with a focus on procurement of BUMDEs applications.

REFERENCES

- [1] Beranič, T., & Heričko, M. (2019). Introducing ERP Concepts to IT Students Using an Experiential Learning Approach with an Emphasis on Reflection. *Sustainability*, 11(18), 4992.
- [2] Bhattacharya, M., Wamba, S. F., & Kamdjoug, J. R. K. (2019). Exploring the Determinants of ERP Adoption Intention: The Case of ERP-Enabled Emergency Service. *International Journal of Technology Diffusion (IJTD)*, 10(4), 58-76.
- [3] Bhatti, T. R. (2005). Critical success factors for the implementation of enterprise resource planning (ERP): empirical validation. In the second international conference on innovation in information technology (Vol. 110, pp. 1-10).
- [4] Bradley, J. (2008). Management based critical success factors in the implementation of enterprise resource planning systems. *International Journal of Accounting Information Systems*, 9(3), 175-200.
- [5] dos Santos, L. A. M., & Lopes, E. C. (2019). Contribution of Information Management Systems Erp As A Subsidy for Decision-Making. *International Journal of Innovation Education and Research*, 7(5), 170-181.
- [6] Heredia-Calzado, M., & Duréndez, A. (2019). The influence of knowledge management and professionalization on the use of ERP systems and its effect on the competitive advantages of SMEs. *Enterprise Information Systems*, 13(9), 1245-1274.
- [7] Hong, K. K., & Kim, Y. G. (2002). The critical success factors for ERP implementation: an organizational fit perspective. *Information & management*, 40(1), 25-40.
- [8] Jarrar, Y. F., Al-Mudimigh, A., & Zairi, M. (2000). ERP implementation critical success factors-the role and impact of business process management. In *Proceedings of the 2000 IEEE International Conference on Management of Innovation and Technology. ICMIT 2000. Management in the 21st Century* (Cat. No. 00EX457) (Vol. 1, pp. 122-127). IEEE.
- [9] Liu, Y., Wang, J., Yin, E., Yu, Y., Zhou, Z., & Hu, D. (2019). An tactile ERP-based brain-computer interface for communication. *International Journal of Human-Computer Interaction*, 35(7), 559-567.
- [10] Qu, Y., Ming, X., Ni, Y., Li, X., Liu, Z., Zhang, X., & Xie, L. (2019). An integrated framework of enterprise information systems in smart manufacturing system via business process reengineering. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, 233(11), 2210-2224.
- [11] Ringle, C., Da Silva, D., & Bido, D. (2015). Structural equation modeling with the SmartPLS. Bido, D., da Silva, D., & Ringle, C. (2014). *Structural Equation Modeling with the Smartpls*. *Brazilian Journal Of Marketing*, 13(2).
- [12] Yavuz, H. (2019). The Critical Success Factors for Manufacturing Execution Systems Adoption in the Defense Industry of Turkey: An Industrial Case Study.