Enterprise Resource Planning (ERP) User Acceptance Model with Easy to Use as Intervening Variable

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Abstract: The purpose of this research is to know the influence of technological resistance, understanding of task, human resources, financial supporting and training to the successful implementation of the Village Enterprise Resource Planning (ERP) Base Application with Easy to Use as intervening variable. The type of this research is descriptive quantitative with the sample respondent of 84 Village Owned Enterprises in Central Tapanuli Regency, North Sumatera, Indonesia. The statistical tool of this research is with Structural Equation Modeling with of Smart-PLS software. The results show that financial supporting and training to the successful implementation of the Village Enterprise Resource Planning (ERP) Base Application and technological resistance, understanding of task and human resources are not influence. The Easy to Use as intervening variable is not influence.

1 INTRODUCTION

Enterprise Resource Planning (ERP) is an integrated system that supports the core business activities of an organization which includes manufacturing, logistics, finance, accounting, sales, marketing, and humanresources (Nah et al., 2004, Pasaoglu, 2011, Alsoub et al., 2018). An ERP system will help parts of an organization to share data and information, reduce costs, and improve management of business processes. With the benefits offered by the system, many companies are tempted to implement it. In increasing the income of the community and villages, the Village Government can establish a Village Owned Enterprise in accordance with the needs and potential of the village. The establishment of Village-Owned Enterprises is stipulated by Village Regulations based on the laws and regulations. The form of Village-Owned Enterprises as referred to in paragraph must be a legal entity. In accordance with the mandate of the Village Law No 6/2014 every village needs to establish a BUMDES, as one of the efforts to empower the community while increasing Village Original Revenue (Suriadi et al., 2015). Furthermore, the Ministry of Villages, Transmigration and Disadvantaged Regions has issued Ministerial Regulation No 4/2015 on BUMDES. Welcoming this the Regional

Governments should also have issued a Regional Regulation on Procedures for the Formation and Management of Village-Owned Enterprises. However, of the many villages that have formed BUMDES, the level of management and knowledge of HR capacity has not been maximized.

BUMDES Financial Management is sourced from state finances (Village Funds), it is necessary to pay attention to the rules in recording and reporting accounting standards. If not careful, the BUMDES manager can be dragged into legal problems due to not paying attention to the accounting problems of Bumdes. The main principle that needs to be considered in the recording and financial reporting of BUMDES is which accounting standard will we use as a basis? This is important, because in the future BUMDES Financial Report will be audited. The audit process is the process of comparing notes and reports that are made with applicable standards. There are several financial accounting standards (SAK) that can be referred to for the compilation and recording of BUMDES accounting, one of which is Entity Accounting without Public Accountability (ETAP). This ETAP Financial Accounting Standard is a fairly simple and practical accounting standard used as a reference for preparing BUMDES financial statements (Suriadi et al., 2015).

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The use of information technology based on Computer Accounting Applications whose job is to obtain financial reports automatically, quickly and has a better level of accuracy than manually (Amoako et al., 2004, Turetkenet al., 2019, Youngberget al., 2019 and Zabukovšek et al., 2019). Have the ability to display data quickly, easily and efficiently. Having a security system in the form of a password, can present comparative financial statements in accordance with the data in the desired period. Benefits of Computerized Accounting is to use information technology based on Computer Accounting Applications whose job is to obtain financial reports automatically, quickly and have a better level of accuracy than manually (Widjaja et al., 2018 and Sternad et al., 2019). Have the ability to display data quickly, easily and efficiently. Has a security system in the form of a password, can present comparative financial reports in accordance with the data in the desired period. BUMDES Financial Application, is an application developed to help the financial management and administrative management of BUMDES, BUMDES Financial Applications are developed based on daily operational needs that will be met when running BUMDES, by adopting other financial business entities. So that the flow and reporting meet financial reporting standards. Althunibat et al (2019) states that if you want to implement an ERP system, the infrastructure includes production, payroll, sales, purchasing and financial reporting. All activities are integrated as a whole and carried out simultaneously through one window.

Bhattacharya et al (2019) discusses The Effectiveness of the Accounting Information System Under the Enterprise Resources Planning (ERP) states that the ERP system will support and create an effective running of the organization. The research needs to be followed up on the scale of government organizations so that it can be seen how effective the system is capable of creating effectiveness in local government. Based on the results of research by Beselga and Alturas (2019) that the success of ERP implementation is measured by the resulting financial statements. The success of the system is in harmony with the perception of its users (users) and has an impact on service. The conclusion of his research states that the implementation of ERP systems can improve the timeliness in publishing financial reports. These results indicate that the ERP system is able to shorten the flow of the process of making financial statements because of its ability to coordinate and integrate information data across business processes. A fundamental question is whether non-profit organizations such as local governments are ready to run ERP where the local government is currently implementing Regional Management Information System where the component is one of the ERP infrastructure applied.

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). The equationis formed as follows:

	X1		= Tec	hnolo	gical l	Resistance		
	X2	= U	Inderst	anding	5			
	X3		= Hu	man R	esour	ces		
	X4		= Fin	ancial	Supp	orting		
	X5		= Tra	ining				
	Ζ		= Eas	y to U	Jse			
	Y	=	Succes	ssful	imple	ementation	of	the
Vi	llage	Ente	erprise	Enter	prise	Resource	Plan	ning
(El	RP) B	ase A	Applica	tion				
	b1,	b5	= Coo	efficie	nt			
	α		= Cot	nstant				

e = Error

Analysis using SEM requires some suitability index to measure the correctness of data and models.

3 RESULT

3.1 Result

3.1.1 Evaluation of Structural Model (Inner Model)

The evaluation of inner model through the bootstrapping menu also generates t-statistics values. The criteria are t-statistic> 1.66 (value $\alpha = 5\%$, one tail). 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 Table1 :

	Original Sample	Sampl e	Standar d	t Statistic	p Values
		Mean	Deviatio n	s	
Financial Supporting (X4) -> Village Enterprise Enterprise Resource Planning (ERP) Base Application (Y)	0.447	0.433	0.127	3.517	0.000
Human Resources (X3) -> Village Enterprise Enterprise Resource Planning (ERP) Base Application (Y)	-0.004	0.002	0.161	0.026	0.980
Technological Resistance (X1) -> Village Enterprise Enterprise Resource Planning (ERP) Base Application (Y)	-0.017	0.033	0.147	0.118	0.906
Training (X5) -> Village Enterprise Enterprise Resource Planning (ERP) Base Application (Y)	0.241	0.268	0.109	2.213	0.027
Understanding (X2) -> Village Enterprise Enterprise Resource Planning (ERP) Base Application (Y)	0.274	0.245	0.200	1.365	0.173
Village Enterprise Enterprise Resource Planning (ERP) Base Application (Y) -> Easy to Use (Z)	0.371	0.020	0.426	0.870	0.385

Table 1. Path Coefficients

Source: PLS Output (2019).

These results show that the financial supporting and training to the successful implementation of the Village Enterprise Resource Planning (ERP) Base Application andtechnological resistance, understanding of task and human resources are not influence. The Easy to Use as intervening variable is not influence. The path coefficient generated is in the following Figure as a follow :



Source: PLS Output (2019).



Source: PLS Output (2019).

Technological Resistance (X1) -> Village Enterprise Enterprise Resource Planning (ERP) Base Application (Y)







Source: PLS Output (2019).



Source: PLS Output (2019).





Source: PLS Output (2019).

Figure 2. Path Coefficient Figure

The statistic result in the following Table2 :

Table 2. Indirect Effects Total

	Easy to	
	Use (Z)	
Easy to Use (Z)		
Financial Supporting (X4)	0.166	
Human Resources (X3)	-0.002	
Technological Resistance (X1)	-0.006	
Training (X5)	0.089	
Understanding (X2)	0.101	
Village Enterprise Enterprise Resource		
Planning (ERP) Base Application (Y)		

Source: PLS Output (2019).

The Total Effect show inTable 3 as a follows :

Table 3. Total Effects

	Village Enterprise Enterprise Resource Planning (ERP) Base Application (Y)
Easy to Use (Z)	
Financial Supporting (X4)	0.447
Human Resources (X3)	-0.004
Technological Resistance (X1)	-0.017
Training (X5)	0.241
Understanding (X2)	0.274
Village Enterprise Enterprise Resource Planning (ERP) Base Application (Y)	

Source: PLS Output (2019).

The results of the Table show that through the Financial Supporting variable is the strongest traversed by the Easy to Use variable. In addition to hypothesis testing through the bootstrapping menu that produces t-statistics, inner model evaluation is also done by reviewing the R-Square value. The R-square value generated from the inner model evaluation is presented in the following Figure 3 :



Figure 3. F Square

The results show from the Figure 3 show that financial supporting and training are significant. The R Square show in Table 3 as a follows :

Table 3. R-Square Value

PRE	R Square	R Square Adjusted
Easy to Use (Z)	0.138	0.127
Village Enterprise Enterprise	0.452	0.415
Resource Planning (ERP)		
Base Application (Y)		
Source: PLS Output (2010)		

Source: PLS Output. (2019).

The results showed a coefficient of determination equal to 41.5 %.

3.2 Discussion

ERP is part of the entity's infrastructure and is very important for the survival of the company. Everyone and the part that will be affected by the ERP must be involved and provide support. ERP exists to support business functions and increase productivity, not vice versa (Calisir et al., 2009, Lim et al., 2005, Seymour et al., 2007 and Regmi et al., 2019). The purpose of ERP implementation is to improve the competitiveness of rural business entities. There are certain methodologies for ERP implementation that are more guaranteed success. What needs to be done is to identify the risks involved in ERP implementation and then how to manage them. The potential for successful implementation will be even greater if these risks can be minimized.

Strengthen the ability of implementation to estimate the resources and time needed to carry out functions in ERP implementation projects. This inability is generally caused by less detailed planning, which is usually due to a lack of experience and knowledge of the project management team regarding similar work. It could also be due to the misperception of the implementers of the scope of work as outlined in the standard for various reasons (Fiaz et al., 2018, Hasan, 2018, Ding et al., 2019 and Okcu et al., 2019). Or because the initial planning was made only for the needs of fulfilling administrative compliance, for example for the needs of auction selection, project charter, billing, and the like

ERP systems tend to replace the old system at both the tactical and management levels. Everything must be run consistently which means the way that is applied in running something must be the same for all areas. Besides that special treatment will be carried out in one area will not be realized without changing the system configuration. Some of the causes of ERP implementation failures are training. The biggest difficulty lies in changing the practice of work that must be done. Besides that training that involves many modules should be carried out. Companies must choose between changing business processes to adjust the system or vice versa, with implications in terms of cost and time to change the system. Only a few organizations implement ERP without consulting a consultant. However, consultants often do acts that harm their clients by not sharing responsibility.

4 CONCLUSIONS

The results show that financial supporting and training to the successful implementation of the Village Enterprise Resource Planning (ERP) Base Application and technological resistance, understanding of task and human resources are not influence and Easy to Use as intervening variable is not influence.

REFERENCES

Alsoub, R. K., Alrawashdeh, T. A., &Althunibat, A. 2018. User Acceptance Criteria For Enterprise Resource Planning Software Systems. International Journal Of Innovative Computing Information And Control, 14(1), 297-307.

- Althunibat, A., Zahrawi, A. A., Tamimi, A. A., &Altarawneh, F. H. 2019. Measuring the Acceptance of Using Enterprise Resource Planning (ERP) System in Private Jordanian Universities Using TAM Model. International Journal of Information and Education Technology, 9(7).
- Amoako, G.K., & Salam, A. F. 2004. An extension of the technology acceptance model in an ERP implementation environment. Information & management, 41(6), 731-745.
- Beselga, D., & Alturas, B. 2019. Using the Technology Acceptance Model (TAM) in SAP Fiori. In World Conference on Information Systems and Technologies (pp. 575-584). Springer, Cham.
- 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.
- Calisir, F., AltinGumussoy, C., & Bayram, A. 2009. Predicting the behavioral intention to use enterprise resource planning systems: An exploratory extension of the technology acceptance model. Management research news, 32(7), 597-613.
- Ding, Q., Wang, X., Tian, J., & Wang, J. 2019. Understanding the Acceptance of Teaching Method Supported by Enterprise WeChat in Blended Learning Environment. In 2019 International Symposium on Educational Technology (ISET) (pp. 211-214). IEEE.
- Fiaz, M., Ikram, A., & Ilyas, A. 2018. Enterprise Resource Planning Systems: Digitization of Healthcare Service Quality. Administrative Sciences, 8(3), 38.
- Hasan, B. 2018. Effects of General and ERP Self-Efficacy Beliefs on the Acceptance of ERP Systems. Journal of Information & Knowledge Management, 17(03), 1850031.
- Lim, E. T., Pan, S. L., & Tan, C. W. 2005. Managing user acceptance towards enterprise resource planning (ERP) systems–understanding the dissonance between user expectations and managerial policies. European Journal of Information Systems, 14(2), 135-149.
- Nah, F. F. H., Tan, X., &Teh, S. H. 2004. An empirical investigation on end-users' acceptance of enterprise systems. Information Resources Management Journal (IRMJ), 17(3), 32-53.
- Okcu, S., Koksalmis, G. H., Basak, E., &Calisir, F. 2019. Factors Affecting Intention to Use Big Data Tools: An Extended Technology Acceptance Model. In Industrial Engineering in the Big Data Era (pp. 401-416). Springer, Cham.
- Pasaoglu, D. 2011. Analysis of ERP usage with technology acceptance model. Global Business and Management Research, 3(2), 157-165.
- Regmi, R., Zhang, Z., Khanal, S., Zhang, H., & Kim, J. 2019. An empirical study on user acceptance of ERP system by international students in Chinese HEIs: A TAM approach. International Journal of Higher Education, 6(1).

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- Seymour, L., Makanya, W., &Berrangé, S. 2007. Endusers' acceptance of enterprise resource planning systems: An investigation of antecedents. In Proceedings of the 6th annual ISOnEworld conference (pp. 1-22).
- Suriadi, A, Rudjiman, Mahalli, K., Achmad, N (2015). The Applicative Model of The Village_Owned Enterprises (BUMDES) Development In North Sumatera. Global Journal of Arts, Humanities and Social Sciences 3(12), 48-62.
- Sternad,Zabukovšek, S., Picek, R., Bobek, S., ŠišovskaKlančnik, I., &Tominc, P. 2019. Technology Acceptance Model Based Study of Students' Attitudes Toward Use of Enterprise Resource Planning Solutions. Journal of Information and Organizational Sciences, 43(1), 49-71.
- Turetken, O., Ondracek, J., &IJsselsteijn, W. 2019. Influential characteristics of enterprise information system user interfaces. Journal of Computer Information Systems, 59(3), 243-255.
- Widjaja, H. A. E., Larasati, A. P., Respati, R., &Ranaputri, V. 2018. The Evaluation of Enterprise Resource Planning (ERP) Financial Accounting and Control Using Technology Acceptance Model. In 2018 International Conference on Computing, Engineering, and Design (ICCED) (pp. 69-74). IEEE.
- Youngberg, E., Olsen, D., & Hauser, K. 2009. Determinants of professionally autonomous end user acceptance in an enterprise resource planning system environment. International journal of information management, 29(2), 138-144..
- Zabukovšek, S. S., Bharadwaj, S. S., Bobek, S., &Štrukelj, T. 2019. Technology acceptance model-based research on differences of enterprise resources planning systems use in India and the European Union. Engineering Economics, 30(3), 326-338.