The Influence of the Application of Management Information Systems through Innovation on Public Services in Yaniruma District Office, Bouven Digoel Regency

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Abstract. This study focuses on the reality that occurs in the Yaniruma District Office, Boven Digoel Regency, that the existence of technology (computers) is very minimal or limited. This situation is interesting to study in more depth whether with the limited facilities, employee performance can be assessed accurately. The Management Information System, which requires data collection on employees and public services in providing up to date and transparent information, becomes an obstacle for every employee in the recording process.In this study, the analysis method used was path analysis (PATH).. The population was 4,398 and families. 2,418. The sample in this study was taken using quota sampling.used by 396 residents with an error rate of 5%.This research will be conducted in Yaniruma Village, Yaniruma District, Boven Digoel Regency which is located on Jalan. Trans Papua KM. 2The results of this study indicate that the independent variable partially has a significant positive effect on the data: the effect of management information systems on innovation shows a coefficient value of 0.871 (positive), the t statistic value is 29,787 which is greater than t-table 1.66 and P values which are 0.000 which is smaller than 0.05. The influence of management information systems on the quality of public services shows a coefficient value of 0.355 (positive), the t statistical value is3,059which is greater than t-table 1.66 and P values which are 0.002 which is smaller than 0.05. the influence of innovation on the quality of public services shows a coefficient value of 0.591 (positive), the t statistical value is5,484which is bigger than t-table 1.66 and P values which is 0.000 which is smaller than 0.05. The influence of management information systems on innovation and quality of public services shows the coefficient value0.515 (positive), the t-statistic value is 4.994 which is greater than the t-table 1.66 and the P Values namely 0.000 which is smaller than 0.05.

Keywords: Management Information Systems, Innovation, Service Quality

PRELIMINARY

This management information system is very important for community service. Community service has now become a central issue in development in Indonesia. The development of community services is always up to date to be discussed. Basically, humans really need service. The concept of service will always be in the life of every human being. The implementation of community services is currently in accordance with the developing community service paradigm, namely the New Community Service (NPS). The New Community Service (NPS) paradigm views the community as a citizen or citizen who has the same rights and obligations to the community.

In addition, there are several reasons why innovation in its sector is needed, including: 1. The number of management techniques that focus on Just in time, supply chain management, outsourcing, and total quality or business process re-engineering are used by various medium and large companies to survive and compete with each other. However, only a few dared to leave the mainstream and create new breakthroughs. 2. The traditional management techniques above also lead the organization to a pattern of rigidity and inflexibility. 3. The

impact of innovation can be felt and is seen on the performance and profits of the organization at the bottom line level. Successful community service innovations, are the result of the creation and implementation of a process,

Observations made by the author show that this kind of situation is still very rare in the Yaniruma District Office, Boven Digoel Regency. Even the existence of technological tools (computers) is very minimal or limited. This situation is interesting to study in more depth whether with the limited facilities, employee performance can be assessed accurately. The Management Information System, which requires data collection on employees and public services in providing up to date and transparent information, is an obstacle for every employee in the recording process. The minimal presence of IT as a supporting component in the process of presenting information is one of the main obstacles to providing fast and accurate information.

LITERATURE REVIEW

Previous Research

Research conducted by Yuliandri Priyo Nugroho (2012) on the development of a web-based project management information system. From the results of designing a website-based project management information system, the following conclusions can be drawn: 1) In this information system a project data base server has been built using MySQL which supports RDBMS, where all the data processed into project reports comes from 1 (one) source and stored on the server to make it easier to save search funds and make it a backup / backup of hardcopy documents. 2) This website-based information system can be accessed online via the internet so that information provided between the parties involved in the project can be conveyed quickly. 3) The online reporting and billing system contained in the information-based system makes the process of reporting the progress of work and billing that has been integrated on the website will be faster and easier for service providers in providing reports to project owners. 4) During the process of developing this information system, responses and input from potential users are very helpful in terms of providing the type of information, how to present information and how to use this information system so that this system runs according to the needs and desires of potential users. 5) In view of the process of work progress reports and payment billing from submission to approval for signatories made online via the internet,

Research conducted by Laurensius J Pasanda (2016) on the application of a management information system at the Palopo City Regional Civil Service Agency (BKD) Office. The role of IT as a component in the implementation of the Personnel Management System is very important in the continuity of a government institution. Therefore, the existence of IT in a government agency is not only a necessity for the leadership, but employees also need the presence of IT to support their performance. The performance of employees in a government institution can be measured from the extent to which they obtain information quickly to the extent to which they process the information accurately so that it becomes new information which is then conveyed to the public or those who need the information. In other words, the role of employees to run in an institution should be taken into account so that things that support their work such as IT components should be taken into account as well. This with the presence of IT can also encourage records in the field of personnel for the preparation of simpeg.

Definition of Management Information Systems
Management Information Systems in general, according to several experts, are: According to McLeod, 2001, a management information system (SIM) is defined as a computer-based system that provides information for several users with similar needs. The users usually form

a formal organizational entity / company / institution or subunits under it. Information describes the company or one of its main systems regarding what has happened in the past, what is happening now and what may happen in the future. This information is available in the form of periodic reports, special reports, and the output of mathematical simulations. Output information is used by managers and non-managers in the company when they make decisions to solve problems.

Robert W. Holmes, 2010, MIS is a system designed to present choice-oriented information needed by management to plan, monitor, and assess organizational activities designed in a framework that focuses on profit planning, performance planning, and supervision at all stages. .

From the above definitions, it can be concluded that the Management Information System is a combination of Human Resources and information technology applications to select, store, process and retrieve data in order to support a company's decision-making process.

Definition and Understanding of Innovation

Innovation is one of the choices for corporations to face market competition and sustainable management. Freeman (2004) considers innovation as an effort by companies through the use of technology and information to develop, produce and market new products for the industry. In other words, innovation is the modification or discovery of ideas for continuous improvement and development to meet customer needs. Pervaiz K. Ahmed and Charles D. Shepherd (2010) company innovation can produce R&D (Research and Development), production and marketing approaches and ultimately lead to the commercialization of these innovations.

In other words, innovation is the process of realizing new ideas, which are different from the old ones, by means of production or by making them real, where innovation includes the generation of evaluation, new concepts and implementation. Where the use of new and different methods and technology to improve quality or lower costs, to meet or exceed company targets.

Definition of Community Service

Public service / generally is one of the main functions of the private sector / government, having a position as an institution that is obliged to provide or meet the needs of the community. Service is a translation of the term service in English according to Kotler, quoted by Tjiptono (1997: 13), which means "any action or deed that can be offered by one party to another, which is basically intangible (intangible) and does not result in ownership of something ", then Sutopo and Sugiyanti (1998: 67) suggest that service has the meaning of" helping to prepare (or take care) what someone needs "Purnama (2006: 43) suggests the following definition of service: How to serve, prepare or guarantee the needs of a person or group of people.

RESEARCH METHODS

Approach and Type of Research

This study uses a quantitative approach which aims to explain the position of the variables under study and the relationship between one variable and another. Sugiyono (2010). This study is intended to test the previously formulated hypotheses. This study will explain the causal relationship between variables through hypothesis testing. In this study, the analysis method used was path analysis (PATH)..

Time and Location of Research

This research will be conducted in Yaniruma Village, Yaniruma District, Boven Digoel Regency which is located on Jalan. Trans Papua KM. 2. The research conducted is estimated

to be about 3 (three) months including preliminary research, preparation of research proposals, research proposal seminars to seminars on research results.

Population and Sample

The population in this study were all communities in 5 villages in Yaniruma District, Boven Digoel Regency, with a population of 4,398 and families of 2,418. The sample in this study was taken using quota sampling. This sample quota sampling technique is a form of sample stratified proportionally, but not randomly selected but by chance.So in this study the sample used was 396 residents with an error rate of 5% with the consideration that the total population of 4,398 was reduced by the number of families of 2,418 divided by 5 villages in the Yaniruma district. Determination of respondents selected using nonprobability sampling techniques that do not provide equal opportunities for each element or member of the population to be selected as samples using the Slovin formula.

Data collection technique

Data collection techniques used in this study are primary data and secondary data.
1. Primary data
   It is data obtained directly from the results of interviews, observations, and questionnaires distributed to a number of respondents who match the target target and are considered to be representative of the entire population. To obtain this data, data collection techniques are carried out by library research, interviews, questionnaires, and observations. .
2. Secondary Data
   Data obtained from other parties has an indirect relationship with the research conducted in the form of institutional history, scope of institutions, organizational structure, books, literature, articles, and sites on the internet.

Data analysis technique

In analyzing data, researchers collect, classify, analyze, and interpret data in order to provide a clear picture of the problem under study. The analytical methods used in this research are:
1. Descriptive analysis.
   Descriptive analysis is used to analyze data by describing or describing the collected data as it is without intending to make generalized conclusions or generalizations.
2. Test data quality (validity and reliability).
   To achieve data quality, it is done by testing the validity and reliability testing using the Smart Partial Least Square (PLS) 3.2.8 software.
3. Hypothesis Testing (Resampling Bootstraping)
   Based on the research objectives, the hypothesis test design that can be made is a hypothesis test design in this study presented based on the research objectives. The confidence level used is 95%, so that the level of precision or the limit of inaccuracy is (α) = 5% = 0.05. The P value is also used to determine whether the coefficient value of a hypothesis is significant or not, provided that the P value must be <than 0.005 in order to be declared as having a significant effect.
   4. The Coefficient of Determination (R^2)
   Dertermination coefficient shows how much the ability of the independent variable to explain the variation in the dependent variable. The R-Squares values of 0.75, 0.50, and 0.25 indicate that the model is strong. Every additional one independent variable, the R-Squares value will definitely increase (Latan and Temalagi, 2013: 80).

DISCUSSION

The results of the study consisted of a description of the research object, validity test, reliability test, description of respondent responses, and hypothesis testing and determinant coefficient.

The construct validity test shows how well the results obtained from the use of a measurement are in accordance with the theories used to define a construct, namely by looking at the correlation between the construct and the question items and the relationship with other variables, so that variable testing is used by looking at the outer loading value. .

The validity test in SmartPLS is assessed based on the loading factor indicators that measure the construct, the rule of thumb used for the initial research is the maximum factor if the value is ≥ 0.30 (level of minimum), for loading factor ± 0.40 is better and> 0 , 50 is considered very good. Or the range of statistical values is twice as large as the standard error values. The higher the loading factor value, the more important the role of loading is in interpreting the factor matrix. The management information system variables, innovation and quality of public services each have a loading value (original sample) of a factor above 0.5 and are categorized as very good (valid) for further hypothesis testing.

The reliability test in the Smart Partial Least Square is used to measure the accuracy, consistency and precision of a measuring instrument in measuring. The reliability test is measured by composite reliability. TheCronbach alpha research variable consisting of a management information system is 0.945, innovation amounted to 0.906 and the quality of public services was 0.843. All variables have a Cronbach's alpha valuegreater than 0.7 so that the construct in this study is declared reliable or valid.

Description of Respondents' Responses

Respondents in this study were employees of Yaniruma District, Boven Digoel Regency, the sample in this study were 89 respondents with statements related to management information systems, trust, innovation, andquality of public services. This can be described as follows:

Respondents' Responses

Descriptions of respondents' responses regarding the management information system (X1) innovation (Y1) variable,quality of public services (Y2), can be seen in the following table:

Table 1. Respondents Responses About management information systems

O	Statement	Average
	Hardware (Hardware)	
	Equipment specifications for data entry / input (such as mouse, keyboard, scanner, etc.) used in the implementation of management information systems in agencies according to user requirements	3,416
	Software (Software)	
2	The operating system and software used in computer equipment are adequate and in accordance with the needs of the agency	3,410
	Database (Database)	
	All input or output data is stored in the unit	3,457
	Procedure. (System)	
	Mr / Mrs carry out different operational activities to help each other in general matters and are carried out based on the rules	3,772

	Human (Brainware)	
	With the existing system, you are able to do tasks more easily and efficiently	3,283

Source: Data Processing (2020)

Based on the table above, it can be seen that all the constituent indicators have shown high and very high responses from respondents. The statement about "Mr / Ms doing different operating activities to help each other in general matters and carried out based on the rules" is a statement with the highest respondent's response value which is in the very high category which indicates that the Procedure (System) indicator is very good. As for the statement about "With the existing system, you are able to do tasks more easily and efficiently". is the statement with the lowest respondent's response but still falls into the good category.

Description of the next respondent's response about innovation can be seen in the following table.

Table 2. Respondents' Responses About innovation

O	Statement	Average
	Relative advantage (relative advantage)	
	Innovations made by agencies can help you work and make you happy at work	3,570
	Compatibility	
	The innovations carried out by the agencies are as needed	3,560
	Complexity (complexity	
	The innovations that are made have a high level of complexity	3,804
	Triability	
	The innovations that are made have the ability to be tested	3,674
	Observability	
	the results of innovation are easy to observe	3,859

Source: Data Processing (2020)

Based on the table above, it can be seen that all the constituent indicators have shown high and very high responses from respondents. The statement about "the result of innovation is easy to observe." is a statement with the highest respondent's response value that is in the very high category, which shows that the indicator of satisfaction with the reward for observability is very good. As for the statement regarding "The innovations that are made have a high level of complexity"Is the statement with the lowest respondent's response, but it has entered the very good category

Descriptions of the next respondent's responses regarding the quality of public services can be seen in the following table.

Table 3. Respondents' Responses About the quality of public services

O	Statement	Average
	Reliability (Reliability)	
	Yaniruma district employees are adept at handling community service needs	3,739

Responsiveness (Responsiveness)	
When you need something, employee Yaniruma district have free time to help you	**3,522**
Guarantee (Assurance)	
You feel safe and comfortable when you are in the office Yaniruma district	**3,957**
Empathy (Empathy)	
Employees Yaniruma district give you individual attention	**3,870**
Physical Evidence (Tangibles)	
Complementary facilities provided (chairs, tables, toilets, etc.) clean and in good repair	**3,652**

Source: Data Processing (2020)

Based on the table above, it can be seen that all the constituent indicators have shown high and very high responses from respondents. A statement about "You feel safe and comfortable in the officeYaniruma district"Is a statement with the highest respondent value in the very high category.As for the statement regarding "When you need something, employee Yaniruma district have free time to help you " is a statement with the lowest respondent's response but has entered the very good category.

Hypothesis testing
In this study, bootstrapping calculations were carried out to test the hypothesis using Smart PLS 3.2.8 to see the direct effect and the indirect effect (mediation).

Direct Influence
Based on the data processing table using Smart PLS 3.2.8 software, the results of the direct effect hypothesis testing can be described as follows:

Effect of management information systems on innovation
Based on the table above, the effect of management information systems on innovation shows the coefficient value of 0.871 (positive), the t statistic value is 29,787 which is greater than t-table 1.66 and P values which are 0.000 which is smaller than 0.05. It can be said that the management information system has a significant positive effect on innovation so that in this case the research hypothesis is accepted.

Effect of management information systems on the quality of public services
Based on the table above, the effect of management information systems on the quality of public services shows a coefficient value of 0.355 (positive), the t statistic value is 3,059which is greater than t-table 1.66 and P values which are 0.002 which is smaller than 0.05. It can be said that the management information system has a positive and significant effect on the quality of public services so that in this case the research hypothesis is accepted.

The influence of innovation on the quality of public services
Based on the table above, the effect of innovation on the quality of public services shows the coefficient value of 0.591 (positive), the t statistical value is 5,484which is bigger than t-table 1.66 and P values which is 0.000 which is smaller than 0.05. It can be said that innovation has a significant positive effect on the quality of public services so that in this case the research hypothesis is accepted.

Indirect Influence (Mediation)

The indirect effect (mediation) can be seen from the results of the bootstrapping calculations in the section on specific indirect effects, the results of which can be seen in the following table:

Effect of management information systems on innovation and quality of public services

Based on the table above, it can be seen that the effect of management information systems on innovation and quality of public services shows the coefficient value 0.515 (positive), the t-statistic value is 4.994 which is greater than the t-table 1.66 and the P Values namely 0.000which is smaller than 0.05. It can be said that the management information system has a positive and significant effect on the quality of public services if it is mediated by innovation so that in this case the research hypothesis is accepted.

The results of testing the overall hypothesis can be seen in the following table:

Table 4. Hypothesis Testing

Code	Hypothesis	Information
H1	management information systems => innovation	Positive Significance
H2	management information system => quality of public services	Positive Significance
H3	Innovation => quality of public services	Positive Significance
H4	management information systems => innovation => quality of public services	Positive Significance

Source: Results of Data Processing (2020)

RESEARCH RESULT

Based on the results of statistical tests for management information system variables, it is concluded that management information systems partially have a positive and significant effect on innovation.This shows that if the management information system is getting better, it will increase innovation. The results also show respondents' responses about management information systems to innovation which show a high / good average response of respondents, although there are still those who show doubts and disagree with the innovation currently being felt in management information systems. Based on the results of interviews and observations with employees met, it was said that the management information system in the Yaniruma District office, Boven Diogel district was not good enough that it had an impact on innovation.

The results of this study are supported with the theory put forward by Rogers in Lubis (2019) documenting the effective application of information systems, encouraging people to make innovations.

These results are also supported by research dokmen Lubis (2019) with the title Analysis of the Influence of the Implementation of Management Information Systems, Work Culture, Managerial Skills and Entrepreneurship on Innovation Ability and Its Implications for Production Manager Performance (Survey on Production Managers in the Manufacturing Industry in the Cikarang Industrial Area, Bekasi Regency). The results of the analysis show that the application of management information systems has a positive and significant effect on innovation ability.

Effect of management information systems on the quality of public services

Based on the results of statistical tests for management information system variables on the quality of public services, it is concluded that the management information system partially has a significant effect on the quality of public services. Based on these results, it shows that if the management information system is getting better, it will improve the quality of public services. The results of the study show the responses of respondents about management information systems and the quality of public services that show a high / good average response rate of respondents although there are still those who show doubts, disagree and strongly disagree with the quality of public services currently being felt on management information systems. .

The influence of innovation on the quality of public services.

Based on the results of statistical tests for variables innovation on the quality of public services concluded that innovation partially has a significant effect on the quality of public services. Based on these results, it shows that if innovation is better, it will improve the quality of public services. The results of the study show that the responses of respondents about innovation on the quality of public services indicate a high / good average response of respondents although there are still those who show doubts, disagree and strongly disagree with the quality of public services currently being felt on innovation.

Effect of management information systems on innovation and quality of public services.

The results of the study show that the management information system variable has a positive and significant effect on the variable of public service quality if it is mediated by innovation. Based on these results, it shows that if the management information system is getting better, it will improve the quality of public services if it is mediated by innovation. The results of the study show the responses of respondents about the application of management information systems, innovation and quality of public services which show a high average response rate of respondents / good although there are still those who show a doubtful response,

Conclusion

Based on the results of this study, the following conclusions can be drawn:

Management information system variables partially have a positive and significant effect on innovation in Yaniruma District, Boven Digoel district, which means that the better the management information system, the better innovation.

Management information system variables partially have a positive and significant effect on the quality of public services in Yaniruma District, Boven Digoel district, which means that the better the management information system, the better the quality of public services.

The innovation variable has a positive and significant effect on the quality of public services at the Boven Digoel District Transportation Office, which means that the better employee innovation in Yaniruma District, Boven Digoel Regency, the better the quality of public services.

Management information system variables have a positive and significant effect on the quality of public services in Yaniruma District, Boven Digoel district if mediated by innovation, which means that the better the management information system in Yaniruma District, Boven Digoel district, will improve the quality of public services if mediated by innovation. .

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