THE ANALYSIS OF SERVICE MANAGEMENT BASED INFORMATION TECHNOLOGY SYSTEMS AT PT MITRA SOLUSI TELEMATIKA

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ABSTRACT

Service Point is the spearhead that connects between the customer with the workforce engineer in the process of information technology services to improve IT services in the company. Often companies ignore this, whereas service point is one of the services of information technology services in order to ensure the sustainability of the business offered by the company. Analysis of incident management system in ITOP program and IT services service based on ITIL V3 framework for Service Point at PT Mitra Solusi Telematika is very much needed in effort to improve IT service to support Vision of PT Mitra Solusi Telematika become provider of integrated technology solution. One effort to improve IT services is by developing the process of providing IT services and services as a single point of contact that bridges between customers with all service point staff and IT services. The development of incident ITOP program management and IT support analysis begins with gathering information and analysis through a review of processes within existing ITOP programs, and ITIL V3 framework literature study. Analysis is done to refine the existing process. Once the document is created and developed, the next step is the document verification process to find out the purpose of the incident management process has been met. The results of this development of the management can facilitate the needs and improve IT services especially in Service Point Department - PT Mitra Solusi Telematika for IT services to be maintained and measurable.

Keywords: Service Management, iTop Program, Service Point, Admin, *framework ITIL V3*, Management Procedures

PROEM

At this time, many companies in the world make the information technology (IT) as the backbone in achieving business goals. Business processes running 24/6 require the provision of information technology services at any time in order to provide improved services needed. Related to this matter, PT. Mitra Solusi Telematika - Tiara Marga Trakindo mentions its strategic objectives in the areas of measurement, analysis and knowledge management, which is to build a reliable and secure information technology infrastructure that is aligned with the needs and

direction of the organization. One of the IT services provided by Service Point - PT. Mitra Solusi Telematika is an ITOP program and information technology services implemented by engineers, admin, and other staff in the implementation of IT support services related to the incident management process. However, in practice, the ITOP program does not yet have a governance document as an implementation guide for ITOP users in the service point. And still many engineer, admin, and staff of service point in doing process of small or big flow troubleshooting do not make one ticket incident in ITOP program as record of job done. And still the staff service point directly contacted the user to provide handling related information technology without contacting the Helpdesk to make a ticket incident in the ITOP program. And resulted in incident registration process which has been handled not appropriate. In order to better handle incidents in the IT service process, an incident management document on incident management in the ITOP program is based on the ITIL V3 framework by spreading the questionnaire to get the results of the assessment of the satisfaction of users of the ITOP program after these governance guidelines are developed. With the existence of incident management documents, all employees in both the service point and the Helpdesk at PT Mitra Solusi Telematika know their functions and responsibilities as well as the steps they should take in handling an incident and can provide the initial troubleshooting information that can be done on the side user for the first time. In the study the authors chose quantitative research meditation and also use the IT governance framework that has the focus of IT governance development especially in terms of service (IT service). In addition, ITIL framework is very appropriate to be used as a guide in developing a governance because it is best practice and has a detailed library to develop the steps in the procedure.

THEORETIC

According to Mc Leod (2007) system analysis is a study of existing systems with the aim of designing new systems or updating existing systems. Whereas according to the Office of Goverment Commerce (2011) Incident management is the process to handle all cases, including failures, complaints or disruptions (usually through the services desk), reported by users of IT services (internal technical staff of the organization).

According to the Office of Goverment Commerce (2011) service management is what enables service providers to understand the services they provide, to ensure that the service actually facilitates the results that customers want, to understand the value of the service to customers, and to understand and manage all the costs and risks associated with the service.

Service Point is defined as the place for engineers to provide assistance to end-users. ITIL is a common framework that describes Best Practice in IT service management. ITIL provides a framework for IT governance, as well as wrapping services. ITIL focuses on continuous measurement and improvement of the quality of IT services delivered, both from a business and customer perspective (OGC, 2011).

1. Service Strategy. The topics covered in this lifecycle stage include establishing a market for selling services, types and characteristics of internal and external service providers, service assets, service portfolio concepts and overall implementation strategies of ITIL Service Lifecycle.

2. Service Design. The scope of Service Design is not solely for designing new IT services, but also the processes of change or improvement of service quality, service continuity and service performance.

3. Service Transition. This lifecycle stage provides an overview of how a requirement defined in Service Strategy is then shaped in Service Design to be subsequently effectively realized in Service Operations.

4. Service Operation. Service Operation is a lifecycle step that covers all the daily operational activities of managing IT services. It includes guidelines on how to manage IT services efficiently and effectively and ensures the level of performance that has been agreed with previous customers.

5. Continual Service Improvement. Provide an important guide in developing and maintaining the quality of services from the design, transition and operation process. CSI combines various principles and methods of quality management, one of which is Plan-Do-Check-Act (PDCA) or otherwise known as Deming Quality Cycle.

METHOD

Research variable is an attribute or characteristic or value of people, objects or activities that have certain variations set for study and draw conclusions (Sugiyono, 2012). The variables used in the study can be classified into: (1) independent variable (independent), that is variables that explain and influence other variables, and (2) dependent variable (bound), that is variable which is explained and influenced by dependent variable.

The dependent variable is the variable that is the center of the researcher's attention (Ferdinand, 2006). The dependent variable is a variable whose value depends on another variable, whose value will change if the variable affecting it changes. Dependent variable in this research is customer loyalty (Y).

The independent is the variable that influences the dependent variable, either the positive influence or the influence of the variable (Ferdinand, 2006). The independent variables in this study consist of:

1. Quality of Service (X1)
2. Relationship Quantity (X2)
3. Customer Loyalty (X3)

Population is a generalization region consisting of objects or subjects that have certain qualities and characteristics defined by the researchers to be studied and then drawn conclusions. The sample is part of the number of characteristics possessed by the population (Sugiyono, 2012). The number of independent variables in the study was 15, so the required number of samples was in the range of 50. In order for the number of samples to be more proportional, the number of samples taken remained 50 samples.

Questionnaires were conducted by spreading the questionnaire data form to 50 respondents of engineers from each branch of Service Point. The distribution of questionnaires takes approximately 1 week in October 2017. While the activities of collecting materials related to research derived from scientific journals, literature and other publications worthy of source. the research stages consist of.

1. Introduction. In this stage, the definition of background, problem formulation, problem definition, research objectives and benefits, and methodology used to

solve the problem are analyzed document of incident management process management.

2. Information Collection and Analysis. In this phase, the activity of reviewing IT governance document of PT Mitra Solusi Telematika. Besides, ITIL V3 framework literature study was also conducted.

3. Verification of Governance Documents. In this stage, it is done by the valisadi to the management document to know whether the main purpose of the incident management process has been fulfilled.

4. Validation of Governance Documents. In this phase, validation of the governance document will be conducted to determine whether the main objective of the incident management process has been fulfilled with this document.

5. Conclusions. In this stage will be done the formulation of the conclusions of the overall steps taken and the results obtained.

RESULT

PT. Mitra Solusi Telematika established as an IS / IT organization as part of the organization of the Tiara Marga Trakindo (TMT) group. Established in 1999, PT. Mitra Solusi Telematika originally owned by PT. GASI and PT. Trakindo Utama, its entire shares were purchased by Tiara Marga Trakindo (TMT) in 2001. PT. Mitra Solusi Telematika provides services to all companies within the TMT group.

In the first study was conducted by studying the IT processes that exist within the Service Point and understand the existing SOPs, and learn the process of handling incident management based on the level of position as follows.

1. Level 1. Users included in the 1st level list are VIP users such as big family and colleague Mr. Hamami who is the owner and founder of PT Trakindo, including the secretary, Director.

2. Level 2. Users included in the list of level 2 such as Senior Manager, Manager, Supervisor who need the process of handling incidents can be speed up.

3. Level 3. Users included in the list of user level 3 are all employees who need helpdesk assistance in assisting the process of checking the incident that is being experienced.

1. **Overview**

Based on the results of research, obtained a description of the rank of the respondents who can be seen in the table below.

Table 1. Respondents Based on Position Level

Jenis Level	Persentase (%)
Level 1	5
Level 2	15
Level 3	30
Jumlah	**50**

Source: research data, 2017

The table above shows that respondents with level 3 more types than respondents with type 1 and level 2. Respondents with type 3 level as much as 30 percent and respondents with type 1 as much as 5 percent and for level 2 respondents as much as 15 percent. This means that the level 3 subscriber type shows the service user behavior of the Service Point more than the customer of level 1 and level 2.

2. **Index Answers Analysis**

Index answers analysis aimed to knowing description of respondents in this study. Especially regarding the research variables used. In this study using index analysis techniques that describe the respondents on the items of questions posed. Scoring technique used in this study is with a maximum score of 5 and at least 1, then the calculation of the index of respondents' answers with the following formula:

Index Value = {(% F1 x 1) + (% F2 x 2) + (% F3 x 3) + (% F4x4) + (% F5x 5)} / 5. Where:

F1: is the frequency of respondents who answered 1 of the scores used in the questionnaire.

F2: is the frequency of respondents who answered 2 of the scores used in the questionnaire.

F3: is the frequency of respondents who answered 3 of the scores used in the questionnaire.

F4: is the frequency of respondents who answered 4 of the scores used in the questionnaire.

F5: is the frequency of respondents who answered 5 of the scores used in the questionnaire.

3. **Analysis of Answers Index on Variable Quality of Service (X1)**

   Service quality can be perceived differently by other. This study measures the service quality variable from Service Point based on respondents' assessment of the quality of helpdesk service. The variable of service quality in this research is measured through 4 question items. Response of respondents as shown in Table above shows that most respondents responded Agree (Score 4) on the three questions Quality of Service variables. The average score index of the answer of Product Quality variable is 67,7. Based on the category of skore index based on three box method, then the average is at the level of High score. This condition gives the impression that the quality of the helpdesk service is perceived positively by the respondents.

4. **Analysis of Answers Index on Variable Relationship (X2)**

   Respondents' Responses to Quality Relationships may differ from person to person. Sometimes people feel satisfied with the quality of relationships if they get satisfactory service from a service. Response of respondents as shown in Table shows that most respondents gave Response Agree (Score 4) to the question of variable Relationship Quality. The average Index score of answers was obtained at 78.0. Based on the index range of the scores, the average is on the High score level. This condition gives the impression that the quality of the relationship is perceived to have a good relationship quality by the respondent.

5. **Analysis of Answers Index on Variable Customer Loyalty (X3)**

   Service Point Service quality will affect user. This research uses 3 questions to measure customer loyalty variable. Response of respondents as in table indicates that most respondents respond Agree (Score 4) to the questions of Customer Loyalty variable. The average Index score of answers was obtained at 50.0. Based on the scores of index categories the score, then the average is at the level of the scores Medium. This condition gives the impression that the helpdesk service is perceived to have an ordinary loyalty to the customer.

6. **Analysis of Respondents' Answer Index Against Customer Satisfaction (Y)**

Customer Satisfaction is a customer's loyalty to remain to use a particular product or service. The service studied in this research is helpdesk service. The following is a statement about the decision of customer satisfaction assessment consisting of 3 items. Response of respondents as shown in table shows that most respondents gave responses Agreed (score 4) to the questions variable Customer Satisfaction with the average score index of 80.3. Based on the score range category, then the average is on the High score level.

Based on the results of multiple linear regression and t test on the data shows that the three regression coefficients are positive and significant sign. From the regression model can be explained further as follows:

1. Service Quality (X1) has positive and significant influence on Customer Satisfaction (Y) with regression value 0,274 and t value = 3,618 with significance level 0,000.

2. Relationship Quality (X2) has positive and significant influence on Customer Satisfaction (Y) with regression value 0,218 and t value = 2,917 with significance level 0,004.

3. Product Design (X3) has a positive and significant influence on Customer Loyalty (Y) with regression value 0,270 t value = 3,669 with significance level 0,000

The result of simultaneous analysis shows F value count = 21,397 with significance equal to 0,000 <0,05. This means that together product quality, service quality, product design, price, and trust have a significant influence on customer satisfaction on service point service.

CONCLUSION

1. Based on the results of multiple linear regression analysis, obtained the regression equation as follows: Y = 0,274 X1 + 0,218 X2 + 0,270 X3 + 0,238 X4 + 0,207 X5.

2. Service quality has an index value of 85.5 which is a high score level and relationship quantity has the greatest effect that is seen in the results of multiple linear regression analysis of 0.274. The findings of this study explain the perception of respondents in assessing Service Point Service PT Mitra Solusi

Telematika can meet customer needs, thus further affect customer satisfaction. Service Quality Variable (X1) has positive and significant influence on Customer Satisfaction (Y) with regression value 0,274 and t value = 3,618 with significance level 0,000

3. The index results of respondents' answers indicate that the variable quantity of relationship has an index value of 79.4 which is a high score level. The findings of this study explain the perception of respondents in assessing the quantity of relationship between customers with the Service Point is very good. This variable is the variable with the second greatest influence after service quality. This is seen in the results of multiple linear regression analysis of 0.270 (Appendix F). Customer Loyalty (X3) has positive and significant influence on Customer Satisfaction (Y) with regression value 0,270 t value = 3,669 with significance level 0,000.

4. The results of the index of respondents' answers indicate that customer loyalty variables have an index value of 73.0 which is a high score level. The findings of this study explain the perception of respondents in assessing customer loyalty offered Service Point is in accordance with the benefits received (value of money). This variable is the variable with the third biggest influence. This is seen in the results of multiple linear regression analysis of 0.238 (Appendix F). Customer Loyalty (X3) has positive and significant influence on Customer Loyalty (Y) with regression value 0,238 and t value = 3,223 with significance level 0,002

Based on the conclusions obtained in this study, the following suggestions are proposed.

1. Companies need to improve service quality of Service Point especially on quantity of relationship and customer loyalty to maintain customer satisfaction. Because the quantity of good relationships will lead to customer satisfaction on a service so encouraging to do using Service Point service.

2. Need further research on factors other than service quality, quantity of relationships, and customer loyalty that affect customer satisfaction on Service Point service at PT Mitra Solusi Telematika is expected to provide better research results.

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